

INITIAL ABATEMENT ACTION REPORT

FOR

PARCEL 004, LEIBURN R. STRICKLAND PROPERTY

STATE PROJECT: R-2303B

WBS ELEMENT: 34416.1.1

**NC 24 FROM SR 1853 (JOHN NUNNERY RD.) IN CUMBERLAND
COUNTY TO SR 1404 (DOWDY RD.) IN SAMPSON COUNTY**

PREPARED FOR:



**NCDOT GEOTECHNICAL ENGINEERING UNIT
GEOENVIRONMENTAL SECTION
1589 MSC
RALEIGH, NORTH CAROLINA 27699-1589**

OCTOBER 31, 2012

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CATLIN PROJECT NO. 212092

**CORPORATE GEOLOGY LICENSE CERTIFICATION NO. C-118
CORPORATE LICENSURE NO. FOR ENGINEERING SERVICES C-0585**

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STATE PROJECT: R-2303B
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1404 (DOWDY RD.) IN SAMPSON COUNTY**

OCTOBER 31, 2012

A. GENERAL INFORMATION

1. SITE INFORMATION

1.1 Site Name

North Carolina Department Of Transportation (NCDOT)
Proposed Right-of-Way (ROW)
Parcel 004
Leiburn R. Strickland Property
Former Strickland Marathon

1.2 Facility I.D. Number

0-036802

1.3 Site address, telephone number and county

9007 Clinton Road
Stedman, Cumberland County, North Carolina 28391
Telephone: None
(See Sheets 1 and 2)
Longitude -78.654612312° W
Latitude 35.002099471 ° N

2. CONTACT INFORMATION

2.1 Name, address, and telephone number of UST owner and operator

Former Strickland Marathon
9007 Clinton Road
Stedman, North Carolina 28391
Phone: None

2.2 Name, address, telephone number and job title of primary contact person

Mr. Terry Fox, LG
NCDOT GeoEnvironmental Section
1589 MSC
Raleigh, North Carolina 27699-1589
Telephone: 919-707-6870

2.3 Name, address and telephone number of closure contractor(s)

Mr. Tony Disher
EVO Corporation (EVO)
1703 Vargrave Street
Winston-Salem, North Carolina 27107
Telephone: 336-725-5944

2.4 Name, address and telephone number of primary consultant

CATLIN Engineers and Scientists (CATLIN)
Attn: G. Richard Garrett, P.G.
P.O. Box 10279
Wilmington, North Carolina 28404-0279
Telephone: 910-452-5861

2.5 Name, address and telephone number of soil disposal contractor

ES&J Enterprises, Incorporated (ES&J)
1555 Holland Road
Autryville, North Carolina 28318
Telephone: 919-567-6138
NCDENR Permit #: SR0600035

2.6 Name, address, telephone number, and State Certification number of laboratory

SGS North America, Inc. (SGS)
5500 Business Drive
Wilmington, North Carolina 28405
Telephone: 910-350-1903
North Carolina State Certification No. 481

B. SITE HISTORY AND CHARACTERIZATION

According to information provided by the NCDOT, this closed business (Strickland Marathon) located at 9007 Clinton Road in Stedman had been vacated by the property owners. The NCDOT ROW Branch filed a condemnation on this parcel. The site vicinity is illustrated on Sheet 1. The

NCDOT Conventional Plan Sheet Symbols are provided on Sheet 1A and the site layout is illustrated on Sheet 2.

Acquisition of the right-of-way is necessary for NC 24 roadway construction (above referenced State Project R-2303B) and specifically at the Former Strickland Marathon, Leiburn R. Strickland Property, Parcel 004. A site investigation was conducted by CATLIN in June 2011 resulting in a *Preliminary Site Assessment (PSA)* Report dated July 26, 2011. Thirteen (13) borings were advanced for soil sample collection. Minor petroleum impacts were detected in soil samples collected near the active USTs, dispenser island/canopy, and proposed drainage features. Minor petroleum impacts were also detected in a soil sample collected near the probable USTs (identified during geophysical investigation) located on the southeastern portion of the property.

According to information on file with NCDENR, the two (2) known USTs (10,000 gallon gasoline and 4,000 gallon gasoline) were installed in 2006 following removal of previous USTs. Soil and groundwater contamination were revealed during the 2006 UST closure/removal activities and assessment/monitoring activities are/were on-going at the site. The NCDENR UST Groundwater Incident Number is 29271. Historical water table information indicated a depth to water of approximately six (6) feet below land surface (BLS). Nine (9) monitoring wells are located at the site and are illustrated on Sheet 2.

According the NCDOT Request for Proposal (RFP) dated July 19, 2012, the scope of work at the site included excavating and properly disposing of soils necessary for removing the known UST system and probable USTs (including tank contents, associated piping and dispenser material), excavating suspected contamination along proposed drainage features, collecting confirmation soil samples, and abandon nine (9) monitoring wells within the proposed ROW. No over-excavation of petroleum impacted soils was requested beyond the soils around the USTs, piping, and proposed drainage features.

C. CLOSURE PROCEDURES

1. PREPARATIONS

CATLIN was contracted by NCDOT to facilitate roadway construction by removing the UST system and (if confirmed) probable USTs at the site and in the proposed ROW. CATLIN performed all field work in accordance with the site *Health and Safety Plan* (available for review at the CATLIN Wilmington Office).

A Notice of Intent (UST-3 form) was submitted to the NCDENR Fayetteville Regional Office on August 21, 2012 (see Appendix A). The

Cumberland County Emergency Services was notified and a permit was obtained through the Cumberland County Fire Marshal by EVO.

CATLIN and subcontractor EVO personnel mobilized to the site on September 24, 2012.

2. CLOSURE PROCEDURES

The site layout is illustrated on Sheet 2. As indicated on Tables 1 and 2, four (4) tanks and associated dispenser piping were located at the site. The two (2) active USTs (UST #1, 10,000 gallon gasoline and UST #2, 4,000 gallon gasoline) are located near the northwest corner of the building. Two (2) orphan USTs (Orphan UST #1, 1,000 gallon and Orphan UST #2, 1,500 gallon) are located near the southwest property corner.

Residual material was pumped from the lines and each UST by a vacuum truck. The dispenser was removed from its foundation and a vacuum was applied to the lines. Each tank was then pressure washed with potable water and pumped dry again. Dry ice was placed in each tank to displace any potentially flammable vapors. EVO personnel measured the inside of the tank for acceptable oxygen and explosive vapor readings prior to removal. The Cumberland County Fire Marshal granted permission to remove the tanks.

Sufficient material (concrete and gravel) was removed from the tops and sides of the USTs allowing them to be lifted from the excavation. Due to the size and depths of the USTs and gravel sloughing from the sides during excavating, a significant amount of gravel was removed which resulted in the concrete slab to be undermined. The undermined concrete slab was removed so as to insure backfilling and compacting could be completed. Fuel supply and vent lines connected to the UST #1 and UST #2 tanks were also uncovered and removed. Native soils were not encountered during piping removal and there were no indications of a release. The NCDENR Incident Manager Mr. Bob Heath agreed there was no need to collect samples for lab analysis from the gravel beneath and around the pipes.

The tops of USTs #1 and #2 were approximately 3.5 feet BLS. The tanks were constructed of fiberglass. The fuel lines from the former dispenser island to UST #1 and UST #2 were constructed of flexible thermoplastic. A fiberglass pipe was also discovered in the trench but did not appear to have been in use. All piping was disconnected from the tanks and cut at the edge of the dispenser concrete pad. The dispenser canopy was not removed from the site during the tank closure activities; therefore, a portion of piping (less than 10 feet) was left in place under the canopy.

The tops of the orphan tanks near the southeast property corner (Orphan UST #1 and #2) were approximately 1.5 feet BLS. One of the tanks had apparently been crushed and abandoned in place. Both orphan tanks were constructed of steel. A small portion (approximately five feet) of steel pipe was also discovered and subsequently removed.

The USTs #1 and #2 were found in good condition with no indications of a release. The southern most Orphan UST (Orphan UST #1) was in poor condition with severe rusting and had apparently been crushed in place, possibly during installation of the other Orphan UST (Orphan UST #2), which was in good condition.

Excavated soils around the Orphan USTs were loaded directly into dump trucks for off-site disposal. Soils were only excavated to facilitate UST removal.

According to the NCDENR Incident Manager Mr. Bob Heath, significant soils were removed from the site during the 2006 UST removal. Gravel was used as backfill around the replacement UST system installed in 2006. Mr. Heath agreed to reuse the gravel excavated during this UST closure for backfill. No "native" soils were encountered during removal of USTs #1 and #2 and associated piping. A *Site Investigation Report for Permanent Closure or Change-in-Service of UST (UST-2)* form is included in Appendix B.

3. RESIDUAL MATERIAL AND DISPOSAL

The residual fuel in the fuel lines and tanks removed by the vacuum truck was properly disposed of at a permitted facility. According to the Certificates of Disposal in Appendix C, 400 gallons of product and water were disposed. As indicated on the Tanks Disposal Certificate in Appendix C, the fiberglass USTs #1 and #2 were transported to the Hanes Mill Subtitle D Landfill in Winston-Salem, North Carolina for proper disposal and recycling. The steel, Orphan USTs #1 and #2 were transported to Runion Recycling in Roseboro, North Carolina for proper disposal and recycling.

4. SOIL EXCAVATION ACTIVITIES

As previously mentioned, no soil was encountered during removal of the active UST system (USTs #1 and #2 and associated piping). The gravel encountered during UST system removal was reused as backfill. The bottoms of USTs #1 and #2 were approximately 14 and 10 feet BLS, respectively. Groundwater was encountered at approximately seven (7) feet BLS in the UST #1 and #2 excavation.

The Orphan USTs #1 and #2 were removed from a separate excavation near the southeast corner of the property. Sandy/clayey soils were encountered surrounding the orphan tanks. Soils from the excavation were transported off-site for proper disposal. Soils were only excavated as necessary to facilitate orphan UST removal. Clean sands from an offsite borrow source were used to backfill the excavation.

In addition to UST closure activities, soils were excavated along the proposed drainage features in areas of suspected soil contamination based on previous PSA sampling results. As illustrated on Sheet 2, there is a proposed drainage line north of USTs #1 and #2 and north of the dispenser canopy. During excavation (and previous PSA sampling) activities for USTs #1 and #2, gravel was encountered along the proposed drainage line. Native soils were exposed approximately five (5) feet north of the proposed drainage line during UST excavation.

Soils were excavated from around the proposed drainage line north/northwest of the dispenser canopy. The excavation limits (as illustrated on Sheet 2) were approximately 10 feet wide by 15 feet long and 6 feet deep. The eastern excavation limits were at the gravel encountered during supply line removal and near a "clean" PSA soil sample location. The proposed drainage excavation soils were also loaded directly into trucks for transportation off site and proper disposal.

The former UST locations and excavation limits are illustrated on Sheet 2. Excavation activity photographs are provided in Appendix D.

D. SITE INVESTIGATION

1. FIELD-SCREENING

Soil screening with a photo-ionization detector was not conducted during this UST closure. Periodic grab samples were screened with a photoionization detector (PID) during excavation activities around the proposed drainage line north/northwest of the dispenser canopy.

2. SOIL SAMPLING

UST closure soil samples were collected in accordance with NCDENR guidance documents and as agreed to by the NCDENR Incident Manager Mr. Bob Heath. Due to water in the UST #1 and #2 basin excavation, sidewall grab samples were collected from near the north end of each tank and north of the proposed drainage line. These samples were collected north of the proposed drainage line. Sidewall samples were also collected on the eastern and western sidewalls. Native soils were not encountered on the south side. The previous PSA sampling did not indicate soil contamination in this area and

according to Mr. Bob Heath (NCDENR Incident Manager) soils were previously excavated in this area and backfilled with gravel. Grab samples were taken from the excavation floor beneath Orphan USTs #1 and #2. Sidewall excavation confirmation samples were also collected from the proposed drainage excavation area north/northwest of the dispenser canopy.

Soil sample locations are illustrated on Sheet 2. Sample material was obtained by the excavator bucket and packed into the appropriate laboratory provided glassware immediately following collection.

Periodic grab samples were also collected from the excavator bucket. The grab samples were combined and one (1) composite waste disposal characterization sample was submitted for laboratory analysis per waste disposal requirements.

Three (3) Orphan UST closure and one (1) waste disposal characterization soil samples were submitted to the laboratory for total petroleum hydrocarbon (TPH) diesel and gasoline range organics (DRO and GRO) analysis per Environmental Protection Agency (EPA) Method 8015C. Four (4) UST closure sidewall samples were collected from the UST #1 and #2 excavation for analysis per EPA Methods 8260B and 8270D and Massachusetts Department of Environmental Protection (MADEP) Extractable and Volatile Petroleum Hydrocarbons (EPH and VPH). Three (3) sidewall samples from the excavation north/northwest of the dispenser canopy (proposed drainage feature area) were also submitted for analysis per EPA Method 8260B and 8270D and MADEP EPH and VPH. Sample identifications, depths, and times are provided on the Chain-of-Custody in Appendix E.

3. GROUNDWATER SAMPLING

No groundwater samples were collected during this investigation.

4. QUALITY CONTROL MEASURES

Clean disposable nitrile gloves were used for each sampling event. Soil samples were collected by hand from undisturbed material obtained by the excavator bucket and packed directly into new laboratory provided glassware.

All samples were placed into appropriate sample jars with Teflon[®] lid liners, labeled with the site location, date, time, initials of person collecting sample, sample identification number, depth of sample, and tests required. Samples were then placed on ice in a cooler and maintained at approximately 4° Celsius during storage and transport to the laboratory. A temperature blank and trip blank were preserved in

the cooler along with the site samples. A Chain-of-Custody form was maintained from the point of sampling until delivery to the laboratory.

No duplicate samples were submitted for laboratory analysis. According to the attached laboratory report (see Appendix E), the sample results are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards and analytical quality control data is available upon request.

5. BACKFILLING PROCEDURES

CATLIN received one soil sample of sandy backfill borrow material from an ES&J borrow source in Autryville, North Carolina for Standard Proctor analysis in accordance with ASTM International (ASTM) D 698, "Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort [12,400 ft-lbf/ft³ (600kN-m/m³)]". In-place field density testing was performed in accordance with ASTM D 1556, "Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method". Following UST removal and excavation at the proposed drainage feature installation, the previously excavated gravel was placed back in the excavation. The gravel was compacted prior to receiving fill material obtained from ES&J. Following emplacement of the gravel, 12-inch lifts were placed in the excavation and compacted with a vibrating sheep's foot roller compactor.

Once each lift was placed and compacted, sand-cone testing was performed at random locations across each individual lift for percent relative compaction. One (1) compaction test was conducted for each lift area of the excavation for UST #1, UST #2, piping, and proposed drainage area north/northwest of the dispenser canopy. One (1) compaction test per lift was also conducted in the Orphan UST excavation area. Density testing was performed in accordance with the above mentioned requirements. A percent relative compaction value greater than or equal to 95 percent of the maximum dry density value was labeled "PASS" which indicated that another lift could be placed. All lifts "Passed" after initial compaction. In-place field densities per sand-cone testing results are provided on Table 3.

6. INVESTIGATION RESULTS

Soil sample locations and summarized results are illustrated on Sheet 2. The complete analytical report is provided in Appendix E. No groundwater samples were collected during this investigation. Photographs of UST removal and backfilling activities and final site conditions are provided in Appendix D.

The waste disposal characterization soil sample ("Drainage Character")

results and Orphan UST closure soil sample results are summarized on Table 4. The waste disposal characterization results indicated acceptable TPH concentrations for ES&J's permitted disposal facility. No detectable TPH concentrations were revealed in the UST closure soil samples collected beneath the northern Orphan UST (Orphan UST #2). The southern Orphan UST (Orphan UST #1) soil sample [S-UST (5.5ft)] results indicate residual TPH DRO and GRO concentrations of 54.7 milligrams per kilogram (mg/kg) and 20.7 mg/kg respectively (see Table 4).

The UST #1, UST #2, and proposed drainage feature area soil sample results are summarized on Tables 5 and 6. The UST #1, UST #2 and proposed drainage area excavation soil sample results did not reveal any concentrations above the lowest Maximum Soil Contaminant Concentrations (MSCCs).

During UST closure and soil excavation activities, CATLIN Certified Well Contractor Mr. Steve Hudson performed well abandonment activities. The one (1) deep, telescoping monitoring well and eight (8) shallow monitoring wells were properly abandoned. The Well Abandonment Records were submitted to the NCDENR Division of Water Quality and copies area included in Appendix F.

E. SOIL DISPOSAL

The excavated soils were transported to ES&J Enterprises, Inc. in Autryville, North Carolina for proper disposal. According to the documentation provided in Appendix E, 66.88 tons of soils were accepted for disposal/treatment at the facility.

F. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The UST closure was completed in general accordance with applicable State and Federal Guidelines to facilitate NCDOT related construction activities. Following excavation activities, no soil contamination was revealed in the areas of proposed drainage feature locations or the active UST system (USTs #1 and #2). Residual petroleum impacted soils remain beneath the former southern Orphan UST location (Orphan UST #2).

Impacts to groundwater were not investigated during UST closure activities but a known UST groundwater incident (#29271) related to the removal of USTs at the site in 2006 is on record with NCDENR.

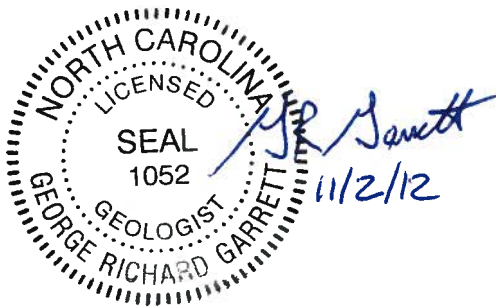
CATLIN recommends forwarding a copy of this report to the NCDENR Fayetteville Regional Office UST Section with a cover letter indicating the presence of TPH impacted soils above the NCDENR Action Level at the former southern Orphan UST location. According to information provided by NCDOT,

this area is not within proposed drainage feature construction. If any utility or roadway construction excavation occurs in this area below approximately 5.5 feet BLS, the contractor should be notified of these findings and advised to be prepared to handle petroleum impacted soils.

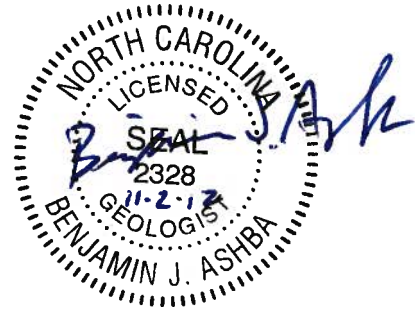
G. LIMITATIONS

This report is based on the agreed work scope and a review of available data from limited sampling. It is possible that this investigation may have failed to reveal the presence of contamination on the subject site where such contamination may exist. Although CATLIN has used accepted methods appropriate for UST closure and contaminated soil removal sampling, CATLIN cannot guarantee that additional soil and/or groundwater contamination does not exist.

H. SIGNATURES



G. Richard Garrett, P.G.
Senior Project Manager



Benjamin J. Ashba, P.G.
Project Manager

TABLES

**TABLE 1
 SITE HISTORY – UST SYSTEM AND OTHER RELEASE INFORMATION**

2006 Incident Number and Name: 29271 – Strickland Marathon

Facility ID: 0-036802

UST ID Number	Current/ Last Contents	Previous Contents	Capacity (gallons)	Construction Details	Tank Dimensions	Description of Associated Piping and Pumps	Date Tank Installed	Status of UST	Was release associated with the UST System?
1	Gasoline	Gasoline	10,000	Fiberglass	8' x 30.5'	Thermo-Plastic	2006	Removed 9/25/12	No
2	Gasoline	Gasoline	4,000	Fiberglass	4' x 19'	Thermo-Plastic	2006	Removed 9/25/12	No
Orphan 1	Unknown	Unknown	1,000	Steel	3.7' x 6'	Steel	Unknown	Removed 9/25/12	Yes (assumed)
Orphan 2	Petroleum	Unknown	1,500	Steel	4' x 10.9'	Steel	Unknown	Removed 9/25/12	No (assumed)

**TABLE 2
 SITE HISTORY - UST OWNER AND OPERATOR INFORMATION**

2006 Incident Number and Name: 29271 – Strickland Marathon

UST ID Numbers	UST #1, UST #2, Orphan 1, & Orphan 2	Facility ID Number	0-036802	
Name of Owner		Dates of Operation		
Former Strickland Marathon		2006 - 2012		
Street Address				
9007 Clinton Road				
City	State	Zip	Telephone Number	
Stedman	NC	28391	None	
Name of Operator		Dates of Operation		
Strickland Marathon		2006 - 2012		
Street Address (Site Address)				
9007 Clinton Road				
City	State	Zip	Telephone Number	
Stedman	NC	28391	None	
Incident Number	(Previous, 2006 release: 29271)			
Name of Other Responsible Party		Dates of Release(s)		
None		Unknown, Discovered in 2006		
Street Address				
City	State	Zip	Telephone Number	

TABLE 3

SUMMARY OF SAND-CONE DENSITY FIELD LOGS

Parcel 004, Leiburn R Strickland Property
Strickland Marathon
9007 Clinton Road in Stedman
FID# 0-036802
GWI# 29271

Lift Number	Field Test Number (depth below land surface)	Date of Test	Standard Proctor (lbs./ft ³)	Optimum Moisture content (%)	Field Moisture content (%)	Dry Density (lbs./ft ³)	% Relative Compaction	Pass/Fail
1	-2	9/27/2012	119.78	12.0	17.9	113.58	95	Pass
2	-1.25	9/27/2012	119.78	12.0	18.7	114.34	95	Pass
3	-0.5	9/27/2012	119.78	12.0	16.0	115.00	96	Pass
4	0	9/28/2012	119.78	12.0	15.7	117.80	98	Pass
Orph	-2	9/28/2012	119.78	12.0	17.2	115.40	96	Pass
Orph	0	9/28/2012	119.78	12.0	16.9	113.87	95	Pass

Pass/Fail is based on 95% compaction of standard proctor value.

**TABLE 4
 SUMMARY OF SOIL LABORATORY RESULTS
 EPA METHOD 8015C**

Parcel 004, Leiburn R Strickland Property
 Strickland Marathon
 9007 Clinton Road in Stedman
 FID# 0-036802
 GWI# 29271

Sample ID	Contaminant of Concern →	Diesel Range Organics	Gasoline Range Organics
	Date Collected		
N-UST-E (6ft)	9/26/2012	<6.30	<3.99
N-UST-W (6ft)	9/26/2012	<6.93	<3.77
S-UST (5.5ft)	9/26/2012	54.7	20.7
Drainage Character*	9/26/2012	38.7 *	<3.59
NCDENR Action Level		10	10

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

Sample depth below land surface provided in parenthesis as part of the sample identification.

< = Less than method detection limit

* = Sample collected for disposal characterization, comparison to the Action Levels not applicable

Bold results indicate concentrations above the NCDENR Action Level.

TABLE 5
SUMMARY OF SOIL LABORATORY RESULTS - EPA METHODS 8260B AND 8270D

Parcel 004, Leiburn R Strickland Property
 Strickland Marathon
 9007 Clinton Road in Stedman
 FID# 0-036802
 GWI# 29271

Sample ID	Analytical Method →	EPA Method 8260B			EPA Method 8270D
	Contaminant of Concern →	Acetone	Methylene chloride	All other EPA Method 8260B Parameters	All EPA Method 8270D Parameters
	Date Collected				
GAS-NW (5-6ft)	9/25/2012	4.64 J	1.34 J	BMDL	BMDL
GAS-NE (5-6ft)	9/25/2012	<3.73	1.22 J	BMDL	BMDL
GAS-E (5ft)	9/26/2012	<4.11	1.28 J	BMDL	BMDL
GAS-W (5ft)	9/26/2012	<3.92	1.07 J	BMDL	BMDL
Drainage-N (5ft)	9/26/2012	7.10 J	<0.903	BMDL	BMDL
Drainage-S (5ft)	9/26/2012	5.24 J	<0.935	BMDL	BMDL
Drainage-W (5ft)	9/26/2012	5.41 J	1.13 J	BMDL	BMDL
Residential MSCC (ug/kg)		14,000,000	85,000	Varies	Varies
Industrial/Commercial MSCC (ug/kg)		360,000,000	763,000	Varies	Varies
Soil To Groundwater MSCC (ug/kg)		24,000	20	Varies	Varies

All results in micrograms per kilogram (ug/kg).
 Sample depth below land surface provided in parenthesis as part of the sample identification.
 J = Estimated Concentration
 BMDL = Below Method Detection Limit (refer to analytical report for a complete list of paramters and detection limits)
 < = Less than method detection limit
 MSCC = Maximum Soil Contaminant Concentration

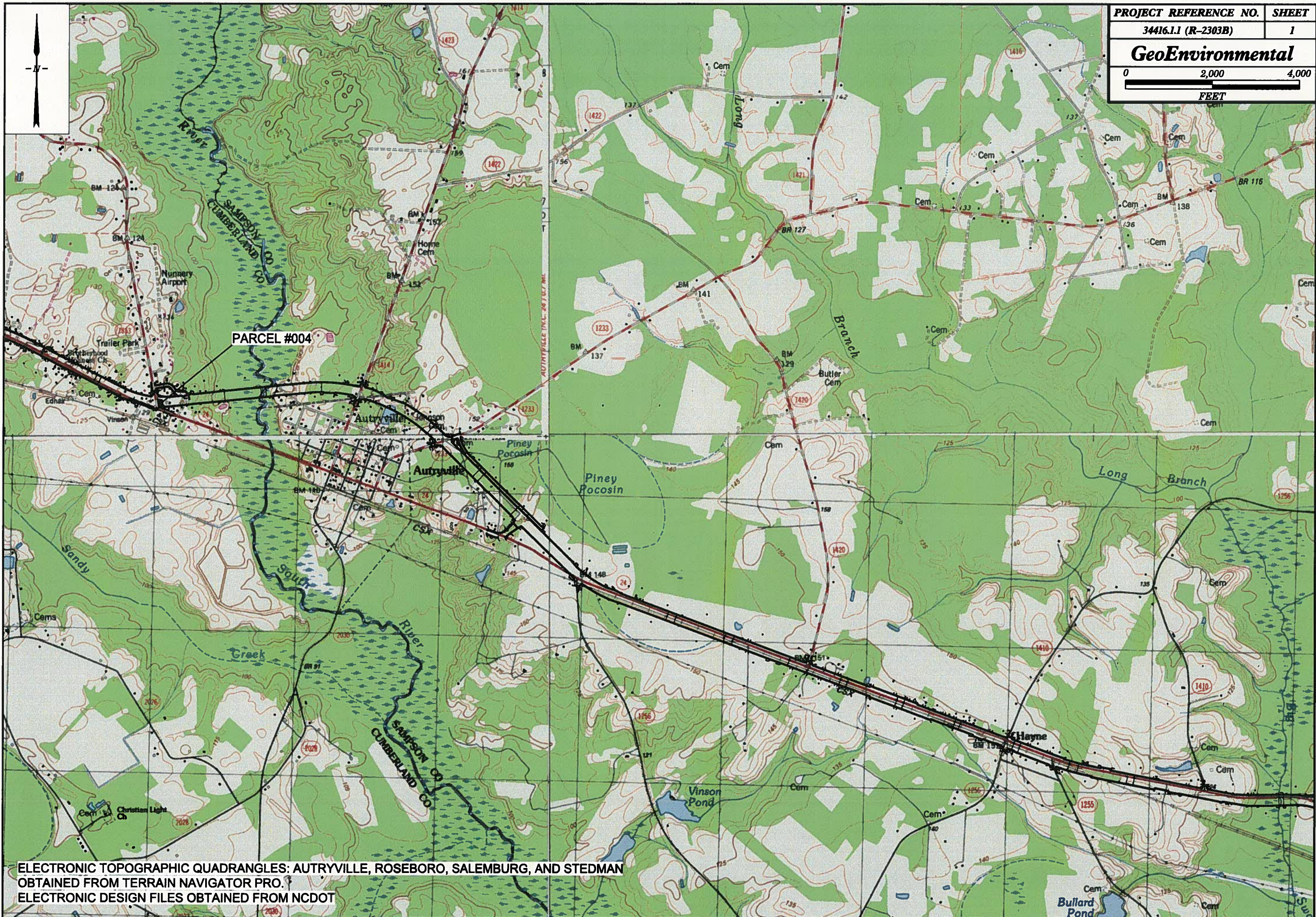
TABLE 6
SUMMARY OF SOIL LABORATORY RESULTS - MADEP EPH AND VPH

Parcel 004, Leiburn R Strickland Property
 Strickland Marathon
 9007 Clinton Road in Stedman
 FID# 0-036802
 GWI# 29271

Sample ID	Contaminant of Concern →	EPH Analytical Fraction			VPH Analytical Fraction			Final EPH and/or VPH Concentration Sum			
		C9-C18 Aliphatics	C19-C36 Aliphatics	C11-C22 Aromatics	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics	C5-C8 Aliphatics	C9-C18 Aliphatics	C19-C36 Aliphatics	C9-C22 Aromatics
	Date Collected										
GAS-NW (5-6ft)	9/25/2012	<6.23	<7.19	<14.0	<4.64	<4.64	<4.64	<4.64	<10.87	<7.19	<18.64
GAS-NE (5-6ft)	9/25/2012	<5.65	<6.52	<12.7	<4.91	<4.91	<4.91	<4.91	<10.56	<6.52	<17.61
GAS-E (5ft)	9/26/2012	<5.32	<6.15	<11.9	<4.86	<4.86	<4.86	<4.86	<10.18	<6.15	<16.76
GAS-W (5ft)	9/26/2012	<5.31	<6.14	<11.9	<4.88	<4.88	<4.88	<4.88	<10.19	<6.14	<16.78
Drainage-N (5ft)	9/26/2012	<5.90	<6.81	<13.2	<4.87	<4.87	<4.87	<4.87	<10.77	<6.81	<18.07
Drainage-S (5ft)	9/26/2012	<5.81	<6.71	<13.0	<4.58	<4.58	<4.58	<4.58	<10.39	<6.71	<17.58
Drainage-W (5ft)	9/26/2012	<5.98	<6.91	<13.4	<4.76	<4.76	<4.76	<4.76	<10.74	<6.91	<18.16
Residential Maximum Soil Contaminant Concentration (mg/kg)								939	1,500	31,000	469
Industrial/Commercial Maximum Soil Contaminant Concentration (mg/kg)								24,528	40,000	810,000	12,264
Soil to Groundwater Maximum Soil Contaminant Concentration (mg/kg)								68	540	Health-Based Level (>100%)	31

MADEP EPH and VPH = Massachusetts Department of Environmental Protection Extractable and Volatile Petroleum Hydrocarbons
 All results in milligrams per kilogram (mg/kg).
 Sample depth below land surface provided in parenthesis as part of the sample identification.
 < = Less than method detection limit

FIGURES



PARCEL #004

ELECTRONIC TOPOGRAPHIC QUADRANGLES: AUTRYVILLE, ROSEBORO, SALEMBURG, AND STEDMAN
 OBTAINED FROM TERRAIN NAVIGATOR PRO.
 ELECTRONIC DESIGN FILES OBTAINED FROM NCDOT

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	●
Property Corner	■
Property Monument	■
Parcel/Sequence Number	■
Existing Fence Line	-----
Proposed Woven Wire Fence	-----
Proposed Chain Link Fence	-----
Proposed Barbed Wire Fence	-----
Existing Wetland Boundary	-----
Proposed Wetland Boundary	-----
Existing Endangered Animal Boundary	-----
Existing Endangered Plant Boundary	-----
Known Soil Contamination: Area or Site	-----
Potential Soil Contamination: Area or Site	-----

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or UG Tank Cap	○
Sign	●
Well	●
Small Mine	✕
Foundation	▭
Area Outline	▭
Cemetery	▭
Building	▭
School	▭
Church	▭
Dam	▭

HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	-----
Jurisdictional Stream	-----
Buffer Zone 1	-----
Buffer Zone 2	-----
Flow Arrow	-----
Disappearing Stream	-----
Spring	-----
Wetland	-----
Proposed Lateral, Tail, Head Ditch	-----
False Sump	-----

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	-----
Switch	-----
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	-----
Proposed Right of Way Line with Concrete or Granite Marker	-----
Existing Control of Access	-----
Proposed Control of Access	-----
Existing Easement Line	-----
Proposed Temporary Construction Easement	-----
Proposed Temporary Drainage Easement	-----
Proposed Permanent Drainage Easement	-----
Proposed Permanent Drainage / Utility Easement	-----
Proposed Permanent Utility Easement	-----
Proposed Temporary Utility Easement	-----
Proposed Aerial Utility Easement	-----
Proposed Permanent Easement with Iron Pin and Cap Marker	◆

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-----
Proposed Slope Stakes Fill	-----
Proposed Curb Ramp	-----
Curb Cut Future Ramp	-----
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	-----

VEGETATION:

Single Tree	●
Single Shrub	●
Hedge	-----
Woods Line	-----

Orchard	-----
Vineyard	-----

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	-----
Bridge Wing Wall, Head Wall and End Wall	-----
MINOR:	
Head and End Wall	-----
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	-----
Paved Ditch Gutter	-----
Storm Sewer Manhole	-----
Storm Sewer	-----

UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	●
Existing Joint Use Pole	●
Proposed Joint Use Pole	●
Power Manhole	-----
Power Line Tower	-----
Power Transformer	-----
UG Power Cable Hand Hole	-----
H-Frame Pole	-----
Recorded UG Power Line	-----
Designated UG Power Line (S.U.E.*)	-----

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	●
Telephone Manhole	-----
Telephone Booth	-----
Telephone Pedestal	-----
Telephone Cell Tower	-----
UG Telephone Cable Hand Hole	-----
Recorded UG Telephone Cable	-----
Designated UG Telephone Cable (S.U.E.*)	-----
Recorded UG Telephone Conduit	-----
Designated UG Telephone Conduit (S.U.E.*)	-----
Recorded UG Fiber Optics Cable	-----
Designated UG Fiber Optics Cable (S.U.E.*)	-----

WATER:

Water Manhole	-----
Water Meter	-----
Water Valve	-----
Water Hydrant	-----
Recorded UG Water Line	-----
Designated UG Water Line (S.U.E.*)	-----
Above Ground Water Line	-----

TV:

TV Satellite Dish	-----
TV Pedestal	-----
TV Tower	-----
UG TV Cable Hand Hole	-----
Recorded UG TV Cable	-----
Designated UG TV Cable (S.U.E.*)	-----
Recorded UG Fiber Optic Cable	-----
Designated UG Fiber Optic Cable (S.U.E.*)	-----

GAS:

Gas Valve	-----
Gas Meter	-----
Recorded UG Gas Line	-----
Designated UG Gas Line (S.U.E.*)	-----
Above Ground Gas Line	-----

SANITARY SEWER:

Sanitary Sewer Manhole	-----
Sanitary Sewer Cleanout	-----
UG Sanitary Sewer Line	-----
Above Ground Sanitary Sewer	-----
Recorded SS Forced Main Line	-----
Designated SS Forced Main Line (S.U.E.*)	-----

MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	□
Utility Unknown UG Line	-----
UG Tank; Water, Gas, Oil	-----
Underground Storage Tank, Approx. Loc.	-----
AG Tank; Water, Gas, Oil	-----
Geoenvironmental Boring	-----
UG Test Hole (S.U.E.*)	-----
Abandoned According to Utility Records	-----
End of Information	-----

SUMMARY OF SOIL LABORATORY RESULTS - EPA METHODS 8260B AND 8270D AND MADEP EPH AND VPH

Sample ID	Analytical Method Contaminant of Concern	EPA Method 8260B			EPA Method 8270D	MADEP EPH and VPH
		Acetone	Methylene chloride	All other EPA Method 8260B Parameters	All EPA Method 8270D Parameters	All MADEP EPH and VPH Analytical and VPH Fractions
	Date Collected					
GAS-NW (5-6ft)	9/25/2012	4.64 J	1.34 J	BMDL	BMDL	BMDL
GAS-NE (5-6ft)	9/25/2012	<3.73	1.22 J	BMDL	BMDL	BMDL
GAS-E (5ft)	9/26/2012	<4.11	1.28 J	BMDL	BMDL	BMDL
GAS-W (5ft)	9/26/2012	<3.92	1.07 J	BMDL	BMDL	BMDL
Drainage-N (5ft)	9/26/2012	7.10 J	<0.903	BMDL	BMDL	BMDL
Drainage-S (5ft)	9/26/2012	5.24 J	<0.935	BMDL	BMDL	BMDL
Drainage-W (5ft)	9/26/2012	5.41 J	1.13 J	BMDL	BMDL	BMDL
Residential MSCC (ug/kg)		14,000,000	85,000	Varies	Varies	Varies
Industrial/Commercial MSCC (ug/kg)		360,000,000	763,000	Varies	Varies	Varies
Soil To Groundwater MSCC (ug/kg)		24,000	20	Varies	Varies	Varies

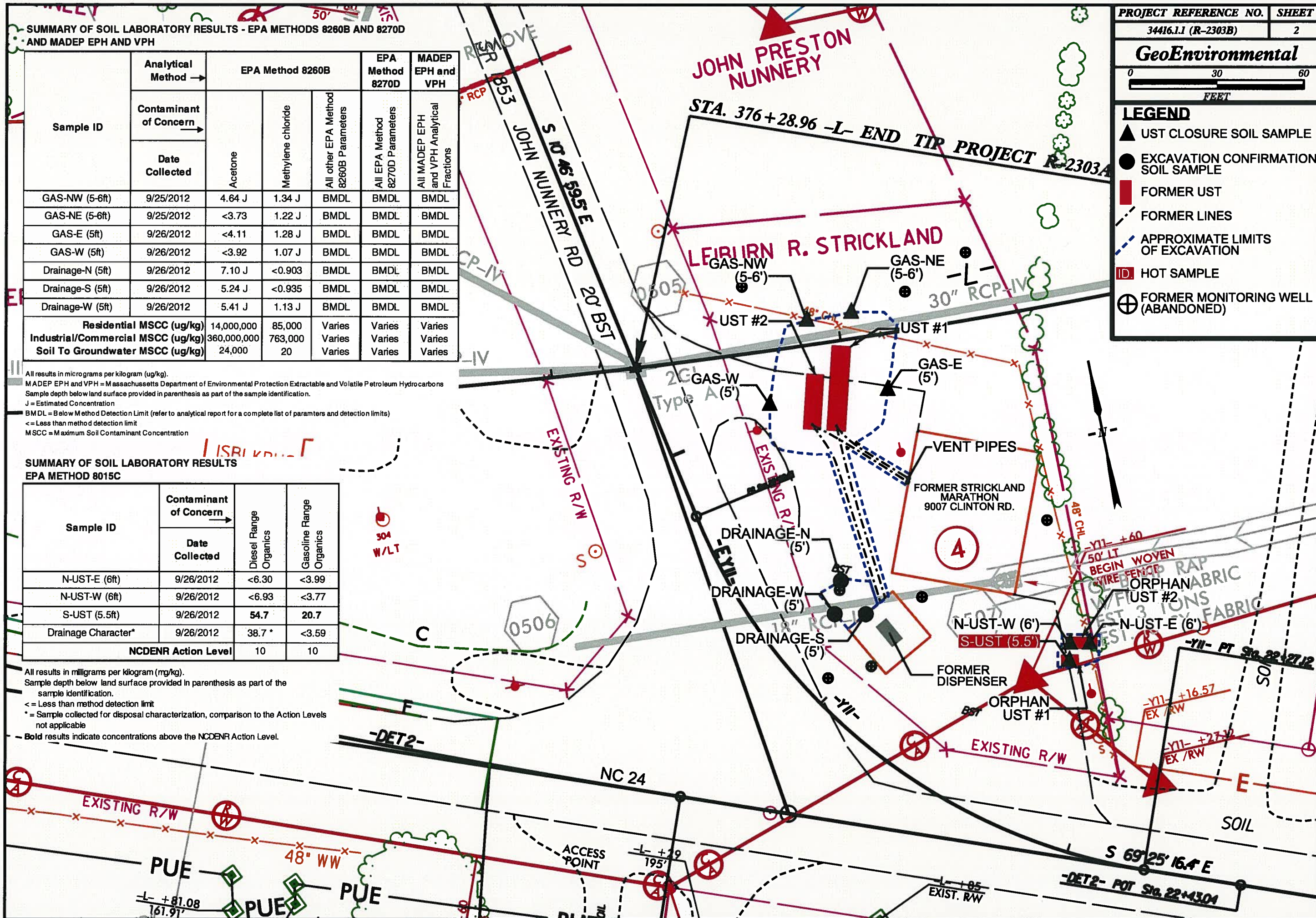
All results in micrograms per kilogram (ug/kg).
 MADEP EPH and VPH = Massachusetts Department of Environmental Protection Extractable and Volatile Petroleum Hydrocarbons
 Sample depth below land surface provided in parenthesis as part of the sample identification.
 J = Estimated Concentration
 BMDL = Below Method Detection Limit (refer to analytical report for a complete list of parameters and detection limits)
 < = Less than method detection limit
 MSCC = Maximum Soil Contaminant Concentration

SUMMARY OF SOIL LABORATORY RESULTS EPA METHOD 8015C

Sample ID	Contaminant of Concern Date Collected	Diesel Range Organics	Gasoline Range Organics
N-UST-E (6ft)	9/26/2012	<6.30	<3.99
N-UST-W (6ft)	9/26/2012	<6.93	<3.77
S-UST (5.5ft)	9/26/2012	54.7	20.7
Drainage Character*	9/26/2012	38.7 *	<3.59
NCDENR Action Level		10	10

All results in milligrams per kilogram (mg/kg).
 Sample depth below land surface provided in parenthesis as part of the sample identification.
 < = Less than method detection limit
 * = Sample collected for disposal characterization, comparison to the Action Levels not applicable
 Bold results indicate concentrations above the NCDENR Action Level.

- LEGEND**
- ▲ UST CLOSURE SOIL SAMPLE
 - EXCAVATION CONFIRMATION SOIL SAMPLE
 - FORMER UST
 - - - FORMER LINES
 - - - APPROXIMATE LIMITS OF EXCAVATION
 - Ⓜ HOT SAMPLE
 - ⊕ FORMER MONITORING WELL (ABANDONED)



APPENDIX A

UST-3 FORM

UST-3 Notice of Intent: UST Permanent Closure or Change-in-Service

Return completed form to:

The DWM Regional Office located in the area where the facility is located. Send a copy to the Central Office in Raleigh so that the status of the tank may be changed to "PERMANENTLY CLOSED" and your tank fee account can be closed out.
SEE MAP ON THE BACK OF THIS FORM FOR THE CENTRAL AND REGIONAL OFFICE ADDRESSES.

STATE USE ONLY
 I.D. # _____
 Date Received _____

INSTRUCTIONS (READ THIS FIRST)

Complete and return at least **thirty (30) days** prior to closure or change-in-service activities. If a Professional Engineer (P.E.) or a Licensed Geologist (L.G.) provides supervision for closure or change-in-service site assessment activities and signs and seals all closure reports then at least a **five (5) working days** notice is acceptable.

Completed UST closure or change-in-service site assessment reports, along with a copy of the UST-2 form, should be submitted to the appropriate Division of Waste Management (DWM) Regional Office within thirty (30) days following closure activities. The UST-2 form should also be submitted to the Central Office in Raleigh so that the status of the tanks may be changed to permanently closed and your tank fee account can be closed out.

UST closure and change-in-service site assessments must be completed in accordance with the latest version of the *Guidelines for Tank Closure*. The *Guidelines for Tank Closure* can be obtained at www.wastenotnc.org.

You must make sure that USTs removed from your property are disposed of properly. When choosing a closure contractor, ask where the tank(s) will be taken for disposal. Usually, USTs are cleaned and cut up for scrap metal. This is dangerous work and must be performed by a qualified company. Tanks disposed of illegally in fields or other dumpsites can leak petroleum products and sludge into the environment. If your tanks are disposed of improperly, you could be held responsible for the cleanup of any environmental damage that occurs.

I. OWNERSHIP OF TANKS		II. LOCATION		
Owner Name (Corporation, individual, Public Agency, or Other Entity) <u>Strickland Marathon</u>		Facility Name or Company <u>Strickland Marathon</u>		
Street Address <u>9007 Clinton Rd.</u>		Facility ID # (if known) <u>0-036802</u>		
City <u>Stedman</u>	County <u>Cumberland</u>	Street Address <u>9007 Clinton Rd.</u>		
State <u>NC</u>	Zip Code <u>28391</u>	City <u>Stedman</u>	County <u>Cumberland</u>	Zip Code <u>28391</u>
Phone Number <u>None</u>		Phone Number <u>NONE</u>		

III. CONTACT PERSONNEL

Name: <u>Terry Fox</u>	Company Name: <u>NCDOT</u>	Job Title: <u>Project Manager</u>	Phone Number: <u>919-707-6870</u>
---------------------------	-------------------------------	--------------------------------------	--------------------------------------

IV. TANK REMOVAL, CLOSURE IN PLACE, CHANGE-IN SERVICE

- | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> Contact local fire marshal. Plan entire closure event. Conduct Site Soil Assessment. If removing tanks or closing in place, refer to API Publication 2015 <i>Cleaning Petroleum Storage Tanks</i> and 1604 <i>Removal and Disposal of Used Underground Petroleum Storage Tanks</i>. | <ol style="list-style-type: none"> Provide a sketch locating piping, tanks and soil sampling locations. Submit a closure report in the format of UST-12 (including the form UST-2) within thirty (30) days following the site investigation. If a release from the tanks has occurred, the site assessment portion of the tank closure must be conducted under the supervision of | <p>a P.E. or L.G., with all closure site assessment reports bearing the signature and seal of the P.E. or L.G. If a release has not occurred, the supervision, signature or seal of a P.E. or L.G. is not required.</p> <ol style="list-style-type: none"> Keep closure records for three (3) years. |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

V. WORK TO BE PERFORMED BY

Contractor Name: <u>Tony Disher</u>		Contractor Company Name: <u>EVO</u>		
Address: <u>1703 Vargrave St. Winston-Salem, NC</u>		State: <u>NC</u>	Zip Code: <u>27107</u>	Phone No: <u>336-725-5844</u>
Primary Consultant Name: <u>Rick Garrett</u>		Primary Consultant Company Name: <u>CATLIN</u>		Consultant Phone No: <u>910-452-5861</u>

VI. TANKS SCHEDULED FOR CLOSURE OR CHANGE-IN-SERVICE

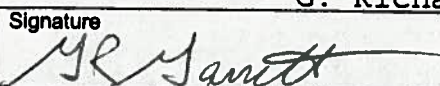
Tank ID No.	Size in Gallons	Last Contents	Proposed Activity			
			Removal	Closure		
				Abandonment in Place *	Change-In-Service	
			New Contents Stored			
<u>1</u>	<u>10,000</u>	<u>Gasoline</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<u>2</u>	<u>4,000</u>	<u>Gasonline</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<u>3</u>	<u>1,500</u>	<u>Unknown</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<u>4</u>	<u>560</u>	<u>Unknown</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
			<input type="checkbox"/>	<input type="checkbox"/>		

* Prior written approval to abandon a tank in place must be received from a DWM Regional Office.

VII. OWNER OR OWNER'S AUTHORIZED REPRESENTATIVE

I understand that I can be held responsible for environmental damage resulting from the improper disposal of my USTs.

Print name and official title: G. Richard Garrett, CATLIN agent for NCDOT

Signature 	Date Signed <u>9/21/12</u>	SCHEDULED REMOVAL DATE <u>9/24/2012</u>	Notify your DWM Regional Office 48 hours before this date if scheduled removal date changes
-------------------------------------------------------------------------------------------------	-------------------------------	--------------------------------------------	---------------------------------------------------------------------------------------------

APPENDIX B

UST-2 FORM

UST-2 Site Investigation Report for Permanent Closure or Change-in-Service of UST

Return completed form to:

The DWM Regional Office located in the area where the facility is located. Send a copy to the Central Office in Raleigh so that the status of the tank may be changed to "PERMANENTLY CLOSED" and your tank fee account can be closed out. SEE MAP ON THE BACK OF THIS FORM FOR THE CENTRAL AND REGIONAL OFFICE ADDRESSES.

STATE USE ONLY:

I.D. # _____

Date Received _____

INSTRUCTIONS (READ THIS FIRST)

For more than five UST systems you may attach additional forms as needed.

Permanent closure – For permanent closure, complete all sections of this form.

Change-in-service – For change-in-service where UST systems will be converted from containing a regulated substance to storing a non-regulated substance, complete sections I, II, III, IV, and VIII

Effective February 1, 1995, all UST closure/change-in-service reports must be submitted in the format provided in the UST-12 form. UST closure and change-in-services must be completed in accordance with the latest version of the *Guidelines for Tank Closure*. A copy of the UST-12 form and the *Guidelines for Tank Closure* can be obtained at www.wastenotnc.org.

You must make sure that USTs removed from your property are disposed of properly. When choosing a closure contractor, ask where the tank(s) will be taken for disposal. Usually, USTs are cleaned and cut up for scrap metal. This is dangerous work and must be performed by a qualified company. Tanks disposed of illegally in fields or other dumpsites can leak petroleum products and sludge into the environment. If your tanks are disposed of improperly, you could be held responsible for the cleanup of any environmental damage that occurs.

NOTE: If a release from the tank(s) has occurred, the site assessment portion of the tank closure must be conducted under the supervision of a P.E. or L.G., with all closure site assessment reports bearing the signature and seal of the P.E. or L.G.

I. OWNERSHIP OF TANKS				II. LOCATION OF TANKS			
Owner Name (Corporation, Individual, Public Agency, or Other Entity) Strickland Marathon				Facility Name or Company Former Strickland Marathon - Proposed NCDOT Right of Way			
Street Address 9007 Clinton Road				Facility ID # (if known) 0-036802			
City Stedman	County Cumberland			Street Address 9007 Clinton Road			
State NC	Zip Code 28391			City Stedman	County Cumberland	Zip Code 28391	
Phone Number None				Phone Number None			

III. CONTACT PERSONNEL

Contact for Facility: Terry Fox, LG		Job Title: NCDOT GeoEnvironmental Proj. Mgr.		Phone No: 919-707-6870	
Closure Contractor Name: Tony Disher		Closure Contractor Company: EVO		Address: 1703 Vargrave St. Winston-Salem, NC	
Primary Consultant Name: Rick Garrett, P.G.		Primary Consultant Company: CATLIN Engineers & Scientists		Address: 220 Old Dairy Rd. Wilmington, NC	
				Phone No: 910-452-5861	

IV. UST INFORMATION FOR REGISTERED UST SYSTEMS							V. EXCAVATION CONDITION					
Tank ID No.	Size in Gallons	Tank Dimensions	Last Contents	Last Use Date	Permanent Close Date	Change-in-Service Date	Water in excavation		Free product		Notable odor or visible soil contamination	
							Yes	No	Yes	No	Yes	No
1	10000	8' x30.5'	Gasoline, Ga	2012	9/25/12		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	4000	6'x19'	Gasoline, Ga	2012	9/25/12		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VI. UST INFORMATION FOR UNREGISTERED UST SYSTEMS							VII. EXCAVATION CONDITION					
Tank ID No.	Size in Gallons	Tank Dimensions	Last Contents	Last Use Date	Permanent Close Date	Tank Owner Name *	Water in excavation		Free product		Notable odor or visible soil contamination	
							Yes	No	Yes	No	Yes	No
Orph1	1000	3.7'x6'	Unknown	???	9/25/12	Orphan	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Orph2	1500	4'x10.9'	Unknown	???	9/25/12	Orphan	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* If the tank owner address is different from the one listed in Section I., then enter the street address, city, state, zip code and telephone no. below:

VIII. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true accurate and complete.

Print name and official title of owner or owner's authorized representative
G. Richard Garrett, P.G.: CATLIN agent for NCDOT

Signature



Date Signed

11/2/12

APPENDIX C
CERTIFICATES OF DISPOSAL AND
WASTE MATERIAL MANIFESTS

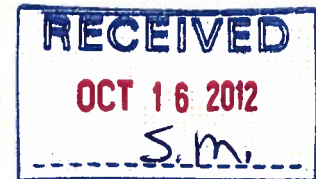
CERTIFICATE OF DISPOSAL

Evo Corporation does hereby certify that 400 gallons of non-hazardous contaminated water received on 09/25/2012 from:

Generator: NCDOT - Former Strickland Property

Originating at: 9007 Clinton Rd.
Stedman, NC

EC Waste ID #: 091233



has been disposed of by Evo Corporation in a manner approved by the North Carolina Department of Environment and Natural Resources.

A handwritten signature in black ink, appearing to read "Anthony H. Disher".

Signature

Anthony H. Disher
President
Evo Corporation

CERTIFICATE OF DISPOSAL

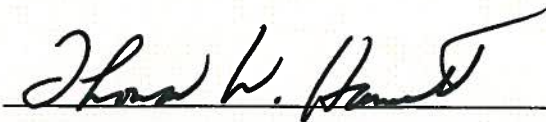
Evo Corporation does hereby certify that 66.88 tons of non-hazardous contaminated material received on 09/26/2012 and 09/27/2012 from:

Generator: NCDOT - Former Strickland Property

Originating at: 9007 Clinton Rd.
Stedman, NC

EC Waste ID #: 091233

has been disposed of by Evo Corporation in a manner approved by the North Carolina Department of Environment and Natural Resources.



Signature

Thomas W. Hammett
CEO
Evo Corporation

TANKS DISPOSAL CERTIFICATE

Tank Owner: NCDOT – Former Strickland Property

Site Address: 9007 Clinton Rd.
Stedman, NC

Description of Tanks:

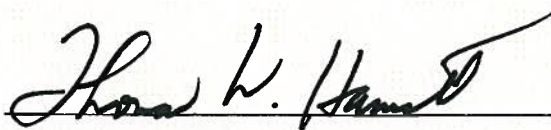
<u>Tank Number</u>	<u>Size of Tank</u>	<u>Contents</u>
1	1,000 Gallons	Gasoline
2	1,500 Gallons	Gasoline

Transporter: Evo Corporation

EC Project #: 091233

Disposal Certification:

Evo Corporation does hereby certify that the above named storage tanks were transported to Runion Recycling in Roseboro, NC for proper disposal and recycling.



Signature

Thomas W. Hammett
CEO
Evo Corporation

TANKS DISPOSAL CERTIFICATE

Tank Owner: NCDOT – Former Strickland Property

Site Address: 9007 Clinton Rd.
Stedman, NC

Description of Tanks:

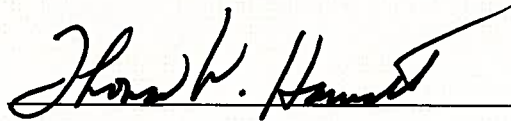
<u>Tank Number</u>	<u>Size of Tank</u>	<u>Contents</u>
1	10,000 Gallons	Gasoline
2	4,000 Gallons	Gasoline

Transporter: Evo Corporation

EC Project #: 091233

Disposal Certification:

Evo Corporation does hereby certify that the above named storage tanks were transported to Hanes Mill Subtitle D Landfill in Winston-Salem, NC for proper disposal. The tanks were disposed of in accordance with API 1604, 1987 "Removal and Disposal of Used Underground Petroleum Storage Tanks." Excess residue was disposed of in accordance with US EPA regulations. Scrap steel from the tanks will be recycled at OmniSource Southeast in Winston-Salem, NC. The fiberglass shells from the tanks will be disposed of properly at the Hanes Mill Landfill in Winston-Salem, NC.



Signature

Thomas W. Hammett
CEO
Evo Corporation

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number

2. Page 1 of

3. Emergency Response Phone

4. Waste Tracking Number

5. Generator's Name and Mailing Address

NCDOT Geo Enviro Engineering Unit
1589 MSC
Raleigh, NC 27699

Generator's Site Address (if different than mailing address)

9007 Clinton Rd (Hwy 24) Stedman
STRICKLANDS HWY 24

Generator's Phone

919-707-6850

6. Transporter 1 Company Name

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

E S & J ENTERPRISES, INC.
1555 HOLLAND RD. - AUTRYVILLE, NC 28318

U.S. EPA ID Number

SR0600035

Facility's Phone: (910) 567-6138

9. Waste Shipping Name and Description

10. Containers

11. Total Quantity

12. Unit Wt./Vol.

1.

PETROLEUM CONTAMINATED SOIL

No.

Type

LBS.

40,720

2.

20,360

3.

4.

13. Special Handling Instructions and Additional Information

73,120
32,400
40,720 20.36T

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offlor's Printed/Typed Name

X Ben Ashby - CAPUN agent for NCDOT

Signature

Ben Ashby

Month Day Year
9 26 12

15. International Shipments

Import to U.S.

Export from U.S.

Port of entry/exit:

Date leaving U.S.:

Transporter Signature (for exports only):

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

[Signature]

Signature

Month Day Year
9 26 12

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

Manifest Reference Number:

U.S. EPA ID Number

17b. Alternate Facility (or Generator)

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name

Rick Wms.

Signature

Rick Wms.

Month Day Year
9 26 12

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number
 2. Page 1 of
 3. Emergency Response Phone
 4. Waste Tracking Number

5. Generator's Name and Mailing Address
NCDOT GeoEnviro Engineering Unit
1589 MSC
Raleigh, NC 27699 919-707-6850
 Generator's Phone: **919-707-6850**

Generator's Site Address (if different than mailing address)
Former Strickland Marathon
9007 Clinton Rd (Hwy 24)
Stedman, NC

6. Transporter 1 Company Name
 U.S. EPA ID Number

7. Transporter 2 Company Name
 U.S. EPA ID Number

8. Designated Facility Name and Site Address
E S & J ENTERPRISES, INC.
1555 HOLLAND RD. - AUTRYVILLE, NC 28318
 Facility's Phone: **(910) 567-6138**
 U.S. EPA ID Number
SR0600035

9. Waste Shipping Name and Description	10. Containers		11. Total Quantity	12. Unit WL/Vol.
	No.	Type		
1. PETROLEUM CONTAMINATED SOIL				LBS. 48,400
2.				24.20 TONS
3.				
4.				

13. Special Handling Instructions and Additional Information

$$\begin{array}{r} 82,440 \\ 34,040 \\ \hline 48,400 \end{array} \quad 29.20$$

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offero's Printed/Typed Name
Ben Ashka: CATW agent for NCDOT
 Signature **Ben Ashka**
 Month **9** Day **27** Year **12**

15. International Shipments Import to U.S. Export from U.S.
 Port of entry/exit:
 Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
 Transporter Signature (for exports only):
 Date leaving U.S.:

Transporter 1 Printed/Typed Name
X MAC GRADING HARVEY
 Signature **Harvey**
 Month **9** Day **27** Year **12**

Transporter 2 Printed/Typed Name
 Signature
 Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space Quantity Type Residue Partial Rejection Full Rejection

17b. Alternate Facility (or Generator)
 Manifest Reference Number:
 U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
 Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in item 17a

Printed/Typed Name
Nick Wms
 Signature **Nick Wms**
 Month **9** Day **27** Year **12**

GENERATOR
 TRANSPORTER INT'L
 TRANSPORTER
 DESIGNATED FACILITY

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number				
5. Generator's Name and Mailing Address NC DOT Geo Enviro Engineering Unit 1589 MSC Raleigh, NC 27649 919-707-6850		Generator's Site Address (if different than mailing address) Former Strickland Marathon 9007 Clinton Rd. Stedman, NC						
6. Transporter 1 Company Name			U.S. EPA ID Number					
7. Transporter 2 Company Name			U.S. EPA ID Number					
8. Designated Facility Name and Site Address E S & J ENTERPRISES, INC. 1555 HOLLAND RD. - AUTRYVILLE, NC 28318			U.S. EPA ID Number SR0600035					
Facility's Phone: (910) 567-6138								
GENERATOR	9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Wt./Vol.		
			No.	Type				
	1. PETROLEUM CONTAMINATED SOIL					LBS.		
	2.					44,640		
	3.					22.32 Tons		
4.								
13. Special Handling Instructions and Additional Information 77,100 32,460 44,640 22.32T								
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.								
Generator's/Offeor's Printed/Typed Name Ben Ashby: CAPUN agent for NC DOT					Signature <i>Ben Ashby</i>			
					Month	Day	Year	
					9	27	12	
INT'L	15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____							
	Transporter Signature (for exports only): _____ Date leaving U.S.: _____							
TRANSPORTER	16. Transporter Acknowledgment of Receipt of Materials							
	Transporter 1 Printed/Typed Name Robert P Sessoms				Signature <i>Robert P Sessoms</i>			
					Month	Day	Year	
				9	27	12		
Transporter 2 Printed/Typed Name				Signature		Month	Day	Year
DESIGNATED FACILITY	17. Discrepancy							
	17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
	17b. Alternate Facility (or Generator) Manifest Reference Number: _____ U.S. EPA ID Number _____							
	Facility's Phone: _____							
	17c. Signature of Alternate Facility (or Generator) _____ Month _____ Day _____ Year _____							
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a								
Printed/Typed Name Rick Wms				Signature <i>Rick Wms</i>		Month	Day	Year
						9	27	12

NORTH CAROLINA
PUBLIC WEIGHMASTER
LICENSE EXPIRES JUNE 30, 2013
RICKY L. WILLIAMS 27363

Ricky Williams
INVALID UNLESS SIGNED

ID 41
GROSS 77100 lb
TARE 32460 lb
NET 44640 lb
09:49AM 09/27/2012

2232 Tons



MEASUREMENT PROFESSIONALS SINCE 1939

6541-C Franz Warner Parkway - Whitesett, NC 27377
Ph: (336) 292-0511 • Fax: (336) 294-9664

NORTH CAROLINA
PUBLIC WEIGHMASTER
LICENSE EXPIRES JUNE 30, 2013
RICKY L. WILLIAMS 27363

Ricky Williams
INVALID UNLESS SIGNED

ID 160
GROSS 73120 lb
TARE 32400 lb
NET 40720 lb
09:07AM 09/26/2012

20.26 Tons



MEASUREMENT PROFESSIONALS SINCE 1939

6541-C Franz Warner Parkway - Whitesett, NC 27377
Ph: (336) 292-0511 • Fax: (336) 294-9664

NORTH CAROLINA
PUBLIC WEIGHMASTER
LICENSE EXPIRES JUNE 30, 2013
RICKY L. WILLIAMS 27363

Ricky Williams
INVALID UNLESS SIGNED

24.20 Tons

ID 43
GROSS 62440 lb
TARE 34040 lb
NET 28400 lb
09:53AM 09/27/2012



MEASUREMENT PROFESSIONALS SINCE 1939

6541-C Franz Warner Parkway - Whitesett, NC 27377
Ph: (336) 292-0511 • Fax: (336) 294-9664

EVO CORPORATION

1703 Vargrave Street, Winston-Salem, NC 27107
www.evocorp.net

NON-HAZARDOUS MATERIALS MANIFEST

Load # _____

Manifest No. **75391**

GENERATOR INFORMATION

Generator: NCDOT/Former Strickland Prop Phone: 919-707-6870
Site Address: 9007 Clinton Road
Stedman, NC 28391 Contact: Terry Fox
City/State: _____

MATERIAL DESCRIPTION / QUANTITY / WEIGHT

Gross Weight (lbs): _____ Material: ~~Product Water~~ Gas/Diesel
Empty Weight (lbs): _____ Contaminant: _____
Net Weight (lbs): _____

Quantity

400

Tons _____ Drums _____ Pails _____ Sacs _____ Yards _____ Other: 50

TRANSPORTER INFORMATION

Transporter: Evo Corporation Phone: 336-725-5844
Truck #: 402 Contact: Tony Disher

As the transporter, I certify that the materials described above being shipped under this non-hazardous materials manifest are properly classified, packaged, labeled, secured and are in proper condition for transport in commerce under the applicable regulations governing transportation, and I hereby receive this material for delivery to the facility designate.

Driver Signature: [Signature] Date: 9/25/12

FACILITY INFORMATION

091233

EVO CORPORATION
1703 Vargrave Street
Winston-Salem, NC 27107

Evo Project #: _____

Phone: (336) 725-5844

Contact: Tony Disher

I certify that the carrier has delivered the materials described above to this facility, and I hereby accept this material for treatment and/or disposal in a manner that has been authorized by the State of North Carolina.

Facility Signature: [Signature] Date: 09/25/12

White/Facility

Canary/Invoice

Goldenrod/Generator

Pink/Carrier

APPENDIX D
PHOTOGRAPHS

**PARCEL 004 – LEIBURN R. STICKLAND PROPERTY
9007 CLINTON ROAD
STEDMAN, NC**



Looking North-northeast from south side of UST #1 and UST #2 excavation.



Looking East across UST #1 and UST #2 excavation.

**PARCEL 004 – LEIBURN R. STICKLAND PROPERTY
9007 CLINTON ROAD
STEDMAN, NC**

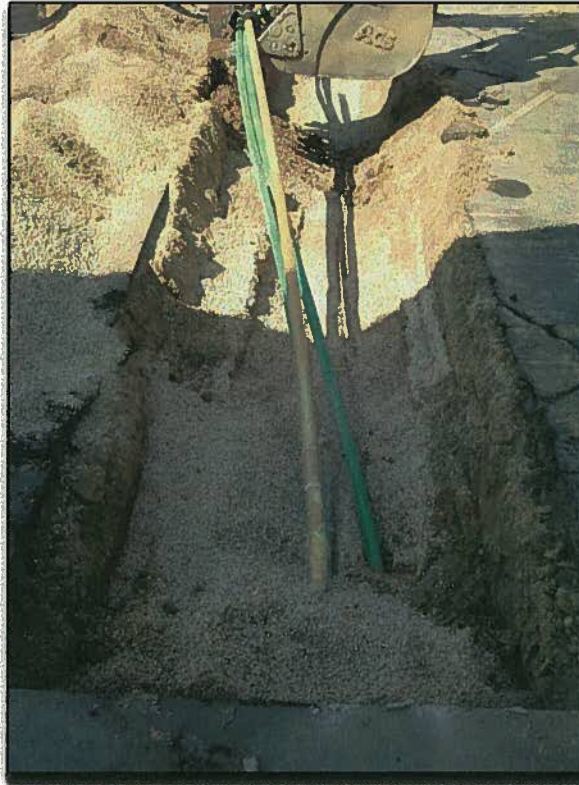


Looking Northeast across excavation, UST #1 being removed.



USTs #2 and #1 loaded (from left to right) for transportation off-site.

**PARCEL 004 – LEIBURN R. STICKLAND PROPERTY
9007 CLINTON ROAD
STEDMAN, NC**

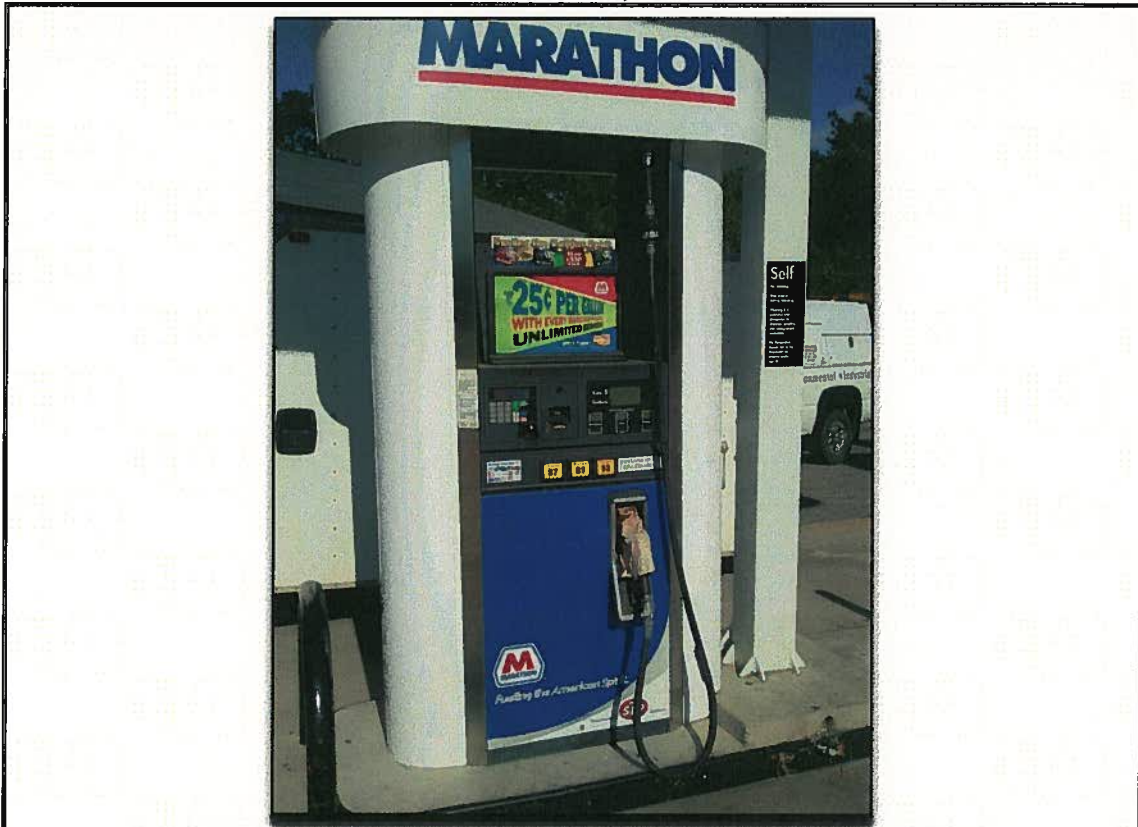


From edge of dispenser canopy, looking North along lines towards UST basin.



From Southeast side of UST Basin looking Northwest across excavation backfilled with "native" stone.

**PARCEL 004 – LEIBURN R. STICKLAND PROPERTY
9007 CLINTON ROAD
STEDMAN, NC**



From Southwest side of dispenser looking Northeast.
Dispenser subsequently removed.



Looking South across proposed drainage feature excavation Northwest
of former dispenser.

**PARCEL 004 – LEIBURN R. STICKLAND PROPERTY
9007 CLINTON ROAD
STEDMAN, NC**



Looking East across proposed drainage feature excavation Northwest of former dispenser.



Looking South across Orphan UST basin.

**PARCEL 004 – LEIBURN R. STICKLAND PROPERTY
9007 CLINTON ROAD
STEDMAN, NC**



Orphan UST #1 being loaded for transportation off-site.



Looking East following Orphan UST #2 removal.

**PARCEL 004 – LEIBURN R. STICKLAND PROPERTY
9007 CLINTON ROAD
STEDMAN, NC**



Orphan UST #2 being loaded for transportation off-site.



Orphan UST Basin backfilled and compacted.

**PARCEL 004 – LEIBURN R. STICKLAND PROPERTY
9007 CLINTON ROAD
STEDMAN, NC**



Looking East-northeast across UST basin being backfilled with off-site material.



Excavation backfill sand cone compaction testing (typical).

**PARCEL 004 – LEIBURN R. STICKLAND PROPERTY
9007 CLINTON ROAD
STEDMAN, NC**



Looking North-northeast from near NC 24 after backfilling, compaction, and finish grading.



Looking East from near John Nunnery Rd. after backfilling, compaction, and finish grading.

**PARCEL 004 – LEIBURN R. STICKLAND PROPERTY
9007 CLINTON ROAD
STEDMAN, NC**



Looking Northeast across former UST basin and lines excavation from near John Nunnery Rd. and NC 24 after backfilling, compaction, and finish grading.



Looking East across former UST basin from near John Nunnery Rd. after backfilling, compaction, and finish grading.

APPENDIX E
LABORATORY ANALYTICAL REPORT
AND
CHAIN-OF-CUSTODY DOCUMENTATION

Laboratory Report of Analysis

To: Ben Ashba
RICHARD CATLIN & ASSOCIATES
P.O. Box 10279
Wilmington, NC 28404

Report Number: **31203112**

Client Project: **NCDOT Former Strickland**

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. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. 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 A. 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.



Digitally signed by: Michael Page
Date: 2012.10.09 13:38:07 -04'00'

Barbara A. Hager
Project Manager
barbara.hager@sgs.com

Date

ANALYTICAL PERSPECTIVES IS NOW PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

Laboratory Qualifiers

Report Definitions

- DL Method, Instrument, or Estimated Detection Limit per Analytical Method
- CL Control Limits for the recovery result of a parameter
- LOQ Reporting Limit
- DF Dilution Factor
- RPD Relative Percent Difference
- LCS(D) Laboratory Control Spike (Duplicate)
- MS(D) Matrix Spike (Duplicate)
- MB Method Blank

Qualifier Definitions

- * Recovery or RPD outside of control limits
- B Analyte was detected in the Lab Method Blank at a level above the LOQ
- U Undetected (Reported as ND or < DL)
- V Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise and detection limit
- A Amount detected is less than the Lower Method Calibration Limit
- J Estimated Concentration.
- O The recovery of this analyte in the OPR is above the Method QC Limits and the reported concentration in the sample may be biased high
- E Amount detected is greater than the Upper Calibration Limit
- S The amount of analyte present has saturated the detector. This situation results in an underestimation of the affected analyte(s)
- Q Indicates the presence of a quantitative interference. This situation may result in an underestimation of the affected analyte(s)
- I Indicates the presence of a qualitative interference that could cause a false positive or an overestimation of the affected analyte(s)
- DPE Indicates the presence of a peak in the polychlorinated diphenylether channel that could cause a false positive or an overestimation of the affected analyte(s)
- TIC Tentatively Identified Compound
- EMPC Estimated Maximum possible Concentration due to ion ratio failure
- ND Not Detected
- K Result is estimated due to ion ratio failure in High Resolution PCB Analysis
- P RPD > 40% between results of dual columns
- D Spike or surrogate was diluted out in order to achieve a parameter result within instrument calibration range

Samples requiring manual integrations for various congeners and/or standards are marked and dated by the analyst. A code definition is provided below:

- M1 Mis-identified peak

Note Results pages that include a value for "Solids (%)" have been adjusted for moisture content.

Sample Summary

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
GAS-NW (5-6ft)	31203112001	09/25/2012 15:50	09/27/2012 15:25	Soil-Solid as dry weight
GAS-NE (5-6ft)	31203112002	09/25/2012 15:40	09/27/2012 15:25	Soil-Solid as dry weight
GAS-E (5ft)	31203112003	09/26/2012 09:00	09/27/2012 15:25	Soil-Solid as dry weight
GAS-W (5ft)	31203112004	09/26/2012 09:05	09/27/2012 15:25	Soil-Solid as dry weight
N-UST-E (6ft)	31203112005	09/26/2012 08:30	09/27/2012 15:25	Soil-Solid as dry weight
N-UST-W (6ft)	31203112006	09/26/2012 08:35	09/27/2012 15:25	Soil-Solid as dry weight
S-UST (5.5ft)	31203112007	09/26/2012 08:40	09/27/2012 15:25	Soil-Solid as dry weight
Drainage-N (5ft)	31203112008	09/26/2012 15:00	09/27/2012 15:25	Soil-Solid as dry weight
Drainage-S (5ft)	31203112009	09/26/2012 15:05	09/27/2012 15:25	Soil-Solid as dry weight
Drainage-W (5ft)	31203112010	09/26/2012 15:10	09/27/2012 15:25	Soil-Solid as dry weight
Drainage Character.	31203112011	09/26/2012 14:50	09/27/2012 15:25	Soil-Solid as dry weight
Trip Blanks (Not on COC)	31203112012	09/26/2012 00:00	09/27/2012 15:25	Soil-Solid as dry weight

Case Narrative

Drainage Character.

8015 GRO - An MS/MSD was not reported with batch VGC2164 as the parent sample required additional dilutions.

GAS-E (5ft)

8260 - The batch Duplicate for batch VMS2590 has reported Internal Standard recoveries that are below the QC limit. All of the spiked target analytes have acceptable recoveries.

GAS-NE (5-6ft)

8260 - The batch Duplicate for batch VMS2590 has reported Internal Standard recoveries that are below the QC limit. All of the spiked target analytes have acceptable recoveries.

GAS-NW (5-6ft)

8260 - The batch Duplicate for batch VMS2590 has reported Internal Standard recoveries that are below the QC limit. All of the spiked target analytes have acceptable recoveries.

GAS-W (5ft)

8260 - The batch Duplicate for batch VMS2590 has reported Internal Standard recoveries that are below the QC limit. All of the spiked target analytes have acceptable recoveries.

LCS for HBN 30022 [VXX/4087]

8015 GRO - An MS/MSD was not reported with batch VGC2164 as the parent sample required additional dilutions.

LCSD for HBN 30022 [VXX/4087]

8015 GRO - An MS/MSD was not reported with batch VGC2164 as the parent sample required additional dilutions.

LCSD-S for HBN 29520 [VXX/4064]

8260 - The batch Duplicate for batch VMS2590 has reported Internal Standard recoveries that are below the QC limit. All of the spiked target analytes have acceptable recoveries.

LCS-S for HBN 29520 [VXX/4064]

8260 - The batch Duplicate for batch VMS2590 has reported Internal Standard recoveries that are below the QC limit. All of the spiked target analytes have acceptable recoveries.

MB for HBN 30022 [VXX/4087]

8015 GRO - An MS/MSD was not reported with batch VGC2164 as the parent sample required additional dilutions.

MB-S for HBN 29520 [VXX/4064]

8260 - The batch Duplicate for batch VMS2590 has reported Internal Standard recoveries that are below the QC limit. All of the spiked target analytes have acceptable recoveries.

MWP-9-26-12-S003-2(91644MS)

8260 - The batch Duplicate for batch VMS2590 has reported Internal Standard recoveries that are below the QC limit. All of the spiked target analytes have acceptable recoveries.

MWP-9-26-12-S004-2(91643DUP)

8260 - The batch Duplicate for batch VMS2590 has reported Internal Standard recoveries that are below the QC limit. All of the spiked target analytes have acceptable recoveries.

N-UST-E (6ft)

8015 GRO - An MS/MSD was not reported with batch VGC2164 as the parent sample required additional dilutions.

Case Narrative

N-UST-W (6ft)

8015 GRO - An MS/MSD was not reported with batch VGC2164 as the parent sample required additional dilutions.

S-UST (5.5ft)

8015 GRO - An MS/MSD was not reported with batch VGC2164 as the parent sample required additional dilutions.

Trip Blanks (Not on COC)

8260 - This Trip Blank has a reported 'J' concentration for Methylene Chloride.

Detectable Results Summary

Client Sample ID: **GAS-NW (5-6ft)**

Lab Sample ID: 31203112001-A

SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Acetone	4.64	ug/Kg	J
Methylene chloride	1.34	ug/Kg	J

Client Sample ID: **GAS-NE (5-6ft)**

Lab Sample ID: 31203112002-A

SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Methylene chloride	1.22	ug/Kg	J

Client Sample ID: **GAS-E (5ft)**

Lab Sample ID: 31203112003-A

SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Methylene chloride	1.28	ug/Kg	J

Client Sample ID: **GAS-W (5ft)**

Lab Sample ID: 31203112004-A

SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Methylene chloride	1.07	ug/Kg	J

Client Sample ID: **S-UST (5.5ft)**

Lab Sample ID: 31203112007-C

SW-846 8015C DRO

SW-846 8015C GRO

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Diesel Range Organics (DRO)	54.7	mg/kg	
Gasoline Range Organics (GRO)	20.7	mg/kg	

Client Sample ID: **Drainage-N (5ft)**

Lab Sample ID: 31203112008-A

SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Acetone	7.10	ug/Kg	J

Client Sample ID: **Drainage-S (5ft)**

Lab Sample ID: 31203112009-A

SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Acetone	5.24	ug/Kg	J

Client Sample ID: **Drainage-W (5ft)**

Lab Sample ID: 31203112010-A

SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Acetone	5.41	ug/Kg	J
Methylene chloride	1.13	ug/Kg	J

Client Sample ID: **Drainage Character.**

Lab Sample ID: 31203112011-C

SW-846 8015C DRO

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Diesel Range Organics (DRO)	38.7	mg/kg	

Client Sample ID: **Trip Blanks (Not on COC)**

Lab Sample ID: 31203112012-A

SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Methylene chloride	3.40	ug/Kg	J

Results of GAS-NW (5-6ft)

Client Sample ID: **GAS-NW (5-6ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112001-A
 Lab Project ID: 31203112

Collection Date: 09/25/2012 15:50
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 89.70

Results by SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	U	0.648	4.57	ug/Kg	1	09/28/2012 16:01
1,1,1-Trichloroethane	ND	U	0.689	4.57	ug/Kg	1	09/28/2012 16:01
1,1,2,2-Tetrachloroethane	ND	U	1.07	4.57	ug/Kg	1	09/28/2012 16:01
1,1,2-Trichloroethane	ND	U	0.950	4.57	ug/Kg	1	09/28/2012 16:01
1,1-Dichloroethane	ND	U	0.492	4.57	ug/Kg	1	09/28/2012 16:01
1,1-Dichloroethene	ND	U	1.06	4.57	ug/Kg	1	09/28/2012 16:01
1,1-Dichloropropene	ND	U	0.618	4.57	ug/Kg	1	09/28/2012 16:01
1,2,3-Trichlorobenzene	ND	U	0.760	4.57	ug/Kg	1	09/28/2012 16:01
1,2,3-Trichloropropane	ND	U	0.941	4.57	ug/Kg	1	09/28/2012 16:01
1,2,4-Trichlorobenzene	ND	U	0.666	4.57	ug/Kg	1	09/28/2012 16:01
1,2,4-Trimethylbenzene	ND	U	0.582	4.57	ug/Kg	1	09/28/2012 16:01
1,2-Dibromo-3-chloropropane	ND	U	6.77	27.4	ug/Kg	1	09/28/2012 16:01
1,2-Dibromoethane	ND	U	1.20	4.57	ug/Kg	1	09/28/2012 16:01
1,2-Dichlorobenzene	ND	U	0.650	4.57	ug/Kg	1	09/28/2012 16:01
1,2-Dichloroethane	ND	U	0.834	4.57	ug/Kg	1	09/28/2012 16:01
1,2-Dichloropropane	ND	U	1.05	4.57	ug/Kg	1	09/28/2012 16:01
1,3,5-Trimethylbenzene	ND	U	0.556	4.57	ug/Kg	1	09/28/2012 16:01
1,3-Dichlorobenzene	ND	U	0.657	4.57	ug/Kg	1	09/28/2012 16:01
1,3-Dichloropropane	ND	U	0.803	4.57	ug/Kg	1	09/28/2012 16:01
1,4-Dichlorobenzene	ND	U	0.617	4.57	ug/Kg	1	09/28/2012 16:01
2,2-Dichloropropane	ND	U	0.674	4.57	ug/Kg	1	09/28/2012 16:01
2-Butanone	ND	U	3.09	22.8	ug/Kg	1	09/28/2012 16:01
2-Chlorotoluene	ND	U	0.856	4.57	ug/Kg	1	09/28/2012 16:01
2-Hexanone	ND	U	2.94	11.4	ug/Kg	1	09/28/2012 16:01
4-Chlorotoluene	ND	U	0.691	4.57	ug/Kg	1	09/28/2012 16:01
4-Isopropyltoluene	ND	U	0.589	4.57	ug/Kg	1	09/28/2012 16:01
4-Methyl-2-pentanone	ND	U	3.42	11.4	ug/Kg	1	09/28/2012 16:01
Acetone	4.64	J	3.66	45.7	ug/Kg	1	09/28/2012 16:01
Benzene	ND	U	0.650	4.57	ug/Kg	1	09/28/2012 16:01
Bromobenzene	ND	U	0.637	4.57	ug/Kg	1	09/28/2012 16:01
Bromochloromethane	ND	U	0.859	4.57	ug/Kg	1	09/28/2012 16:01
Bromodichloromethane	ND	U	0.643	4.57	ug/Kg	1	09/28/2012 16:01
Bromoform	ND	U	0.662	4.57	ug/Kg	1	09/28/2012 16:01
Bromomethane	ND	U	1.32	4.57	ug/Kg	1	09/28/2012 16:01
n-Butylbenzene	ND	U	0.600	4.57	ug/Kg	1	09/28/2012 16:01
Carbon disulfide	ND	U	0.478	4.57	ug/Kg	1	09/28/2012 16:01
Carbon tetrachloride	ND	U	0.520	4.57	ug/Kg	1	09/28/2012 16:01
Chlorobenzene	ND	U	0.638	4.57	ug/Kg	1	09/28/2012 16:01
Chloroethane	ND	U	0.914	4.57	ug/Kg	1	09/28/2012 16:01
Chloroform	ND	U	0.582	4.57	ug/Kg	1	09/28/2012 16:01
Chloromethane	ND	U	1.31	4.57	ug/Kg	1	09/28/2012 16:01
Dibromochloromethane	ND	U	1.01	4.57	ug/Kg	1	09/28/2012 16:01
Dibromomethane	ND	U	0.806	4.57	ug/Kg	1	09/28/2012 16:01

Results of GAS-NW (5-6ft)

Client Sample ID: **GAS-NW (5-6ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112001-A
 Lab Project ID: 31203112

Collection Date: 09/25/2012 15:50
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 89.70

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	0.959	4.57	ug/Kg	1	09/28/2012 16:01
cis-1,3-Dichloropropene	ND	U	0.941	4.57	ug/Kg	1	09/28/2012 16:01
trans-1,3-Dichloropropene	ND	U	0.863	4.57	ug/Kg	1	09/28/2012 16:01
Diisopropyl Ether	ND	U	0.750	4.57	ug/Kg	1	09/28/2012 16:01
Ethyl Benzene	ND	U	0.644	4.57	ug/Kg	1	09/28/2012 16:01
Hexachlorobutadiene	ND	U	0.628	4.57	ug/Kg	1	09/28/2012 16:01
Isopropylbenzene (Cumene)	ND	U	0.568	4.57	ug/Kg	1	09/28/2012 16:01
Methyl iodide	ND	U	0.700	4.57	ug/Kg	1	09/28/2012 16:01
Methylene chloride	1.34	J	0.959	18.3	ug/Kg	1	09/28/2012 16:01
Naphthalene	ND	U	0.831	4.57	ug/Kg	1	09/28/2012 16:01
Styrene	ND	U	0.526	4.57	ug/Kg	1	09/28/2012 16:01
Tetrachloroethene	ND	U	0.686	4.57	ug/Kg	1	09/28/2012 16:01
Toluene	ND	U	0.629	4.57	ug/Kg	1	09/28/2012 16:01
Trichloroethene	ND	U	0.769	4.57	ug/Kg	1	09/28/2012 16:01
Trichlorofluoromethane	ND	U	0.923	4.57	ug/Kg	1	09/28/2012 16:01
Vinyl chloride	ND	U	0.868	4.57	ug/Kg	1	09/28/2012 16:01
Xylene (total)	ND	U	1.62	9.14	ug/Kg	1	09/28/2012 16:01
cis-1,2-Dichloroethene	ND	U	0.558	4.57	ug/Kg	1	09/28/2012 16:01
m,p-Xylene	ND	U	1.54	9.14	ug/Kg	1	09/28/2012 16:01
n-Propylbenzene	ND	U	0.669	4.57	ug/Kg	1	09/28/2012 16:01
o-Xylene	ND	U	0.700	4.57	ug/Kg	1	09/28/2012 16:01
sec-Butylbenzene	ND	U	0.548	4.57	ug/Kg	1	09/28/2012 16:01
tert-Butyl methyl ether (MTBE)	ND	U	0.726	4.57	ug/Kg	1	09/28/2012 16:01
tert-Butylbenzene	ND	U	0.615	4.57	ug/Kg	1	09/28/2012 16:01
trans-1,2-Dichloroethene	ND	U	0.667	4.57	ug/Kg	1	09/28/2012 16:01
trans-1,4-Dichloro-2-butene	ND	U	3.84	22.8	ug/Kg	1	09/28/2012 16:01

Surrogates

1,2-Dichloroethane-d4	117			55.0-173	%	1	09/28/2012 16:01
4-Bromofluorobenzene	103			23.0-141	%	1	09/28/2012 16:01
Toluene d8	106			57.0-134	%	1	09/28/2012 16:01

Batch Information

Analytical Batch: **VMS2590**
 Analytical Method: **SW-846 8260B**
 Instrument: **MSD9**
 Analyst: **DVO**

Prep Batch: **VXX4064**
 Prep Method: **SW-846 5035 SL**
 Prep Date/Time: **09/28/2012 10:59**
 Prep Initial Wt./Vol.: **6.1 g**
 Prep Extract Vol: **5 mL**

Results of GAS-NW (5-6ft)

Client Sample ID: **GAS-NW (5-6ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112001-E
 Lab Project ID: 31203112

Collection Date: 09/25/2012 15:50
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 89.70

Results by MADEP VPH

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
C5-C8 Aliphatics	ND	U	4.64	4.64	mg/kg	1	09/28/2012 14:12
C9-C10 Aromatics	ND	U	4.64	4.64	mg/kg	1	09/28/2012 14:12
C9-C12 Aliphatics	ND	U	4.64	4.64	mg/kg	1	09/28/2012 14:12

Surrogates

FID - 4-Bromofluorobenzene	88.0			70.0-130	%	1	09/28/2012 14:12
PID - 4-Bromofluorobenzene	74.0			70.0-130	%	1	09/28/2012 14:12

Batch Information

Analytical Batch: **VGC2161**
 Analytical Method: **MADEP VPH**
 Instrument: **GC4**
 Analyst: **MDY**

Prep Batch: **VXX4063**
 Prep Method: **SW-846 5035 VPH prep**
 Prep Date/Time: **09/28/2012 10:59**
 Prep Initial Wt./Vol.: **6.01 g**
 Prep Extract Vol: **5 mL**

Results of GAS-NW (5-6ft)

Client Sample ID: **GAS-NW (5-6ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112001-G
 Lab Project ID: 31203112

Collection Date: 09/25/2012 15:50
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 89.70

Results by SW-846 8270D

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	ND	U	31.5	357	ug/Kg	1	10/2/2012 21:31
1,2-Dichlorobenzene	ND	U	17.8	357	ug/Kg	1	10/2/2012 21:31
1,3-Dichlorobenzene	ND	U	24.1	357	ug/Kg	1	10/2/2012 21:31
1,4-Dichlorobenzene	ND	U	25.2	357	ug/Kg	1	10/2/2012 21:31
2,4,5-Trichlorophenol	ND	U	23.8	357	ug/Kg	1	10/2/2012 21:31
2,4,6-Trichlorophenol	ND	U	24.2	357	ug/Kg	1	10/2/2012 21:31
2,4-Dichlorophenol	ND	U	20.7	357	ug/Kg	1	10/2/2012 21:31
2,4-Dinitrophenol	ND	U	33.1	1790	ug/Kg	1	10/2/2012 21:31
2,4-Dinitrotoluene	ND	U	18.0	357	ug/Kg	1	10/2/2012 21:31
2,6-Dinitrotoluene	ND	U	25.6	357	ug/Kg	1	10/2/2012 21:31
2-Chloronaphthalene	ND	U	21.0	357	ug/Kg	1	10/2/2012 21:31
2-Chlorophenol	ND	U	18.9	357	ug/Kg	1	10/2/2012 21:31
2-Methylnaphthalene	ND	U	28.9	357	ug/Kg	1	10/2/2012 21:31
2-Methylphenol	ND	U	19.7	357	ug/Kg	1	10/2/2012 21:31
2-Nitroaniline	ND	U	23.5	357	ug/Kg	1	10/2/2012 21:31
2-Nitrophenol	ND	U	17.1	357	ug/Kg	1	10/2/2012 21:31
3 and/or 4-Methylphenol	ND	U	23.2	357	ug/Kg	1	10/2/2012 21:31
3,3'-Dichlorobenzidine	ND	U	17.1	714	ug/Kg	1	10/2/2012 21:31
3-Nitroaniline	ND	U	16.1	1790	ug/Kg	1	10/2/2012 21:31
4,6-Dinitro-2-methylphenol	ND	U	16.8	1790	ug/Kg	1	10/2/2012 21:31
4-Chloro-3-methylphenol	ND	U	17.8	357	ug/Kg	1	10/2/2012 21:31
4-Chloroaniline	ND	U	28.5	357	ug/Kg	1	10/2/2012 21:31
4-Chlorophenyl phenyl ether	ND	U	38.1	357	ug/Kg	1	10/2/2012 21:31
Acenaphthene	ND	U	46.1	357	ug/Kg	1	10/2/2012 21:31
Acenaphthylene	ND	U	54.2	357	ug/Kg	1	10/2/2012 21:31
Anthracene	ND	U	47.5	357	ug/Kg	1	10/2/2012 21:31
Benzo(a)anthracene	ND	U	46.9	357	ug/Kg	1	10/2/2012 21:31
Benzo(a)pyrene	ND	U	55.6	357	ug/Kg	1	10/2/2012 21:31
Benzo(b)fluoranthene	ND	U	54.2	357	ug/Kg	1	10/2/2012 21:31
Benzo(g,h,i)perylene	ND	U	46.7	357	ug/Kg	1	10/2/2012 21:31
Benzo(k)fluoranthene	ND	U	55.8	357	ug/Kg	1	10/2/2012 21:31
Benzoic acid	ND	U	104	1790	ug/Kg	1	10/2/2012 21:31
Bis(2-Chloroethoxy)methane	ND	U	16.1	357	ug/Kg	1	10/2/2012 21:31
Bis(2-Chloroethyl)ether	ND	U	33.3	357	ug/Kg	1	10/2/2012 21:31
Bis(2-Chloroisopropyl)ether	ND	U	31.2	357	ug/Kg	1	10/2/2012 21:31
Bis(2-Ethylhexyl)phthalate	ND	U	17.1	357	ug/Kg	1	10/2/2012 21:31
4-Bromophenyl phenyl ether	ND	U	23.5	357	ug/Kg	1	10/2/2012 21:31
Butyl benzyl phthalate	ND	U	31.0	357	ug/Kg	1	10/2/2012 21:31
Chrysene	ND	U	41.5	357	ug/Kg	1	10/2/2012 21:31
Di-n-butyl phthalate	ND	U	16.9	357	ug/Kg	1	10/2/2012 21:31
Di-n-octyl phthalate	ND	U	19.7	357	ug/Kg	1	10/2/2012 21:31
Dibenz(a,h)anthracene	ND	U	16.1	357	ug/Kg	1	10/2/2012 21:31
Dibenzofuran	ND	U	28.0	357	ug/Kg	1	10/2/2012 21:31

Results of GAS-NW (5-6ft)

Client Sample ID: **GAS-NW (5-6ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112001-G
 Lab Project ID: 31203112

Collection Date: 09/25/2012 15:50
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 89.70

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diethyl phthalate	ND	U	19.3	357	ug/Kg	1	10/2/2012 21:31
Dimethyl phthalate	ND	U	27.4	357	ug/Kg	1	10/2/2012 21:31
2,4-Dimethylphenol	ND	U	26.1	357	ug/Kg	1	10/2/2012 21:31
Diphenylamine	ND	U	16.1	357	ug/Kg	1	10/2/2012 21:31
Fluoranthene	ND	U	33.5	357	ug/Kg	1	10/2/2012 21:31
Fluorene	ND	U	18.9	357	ug/Kg	1	10/2/2012 21:31
Hexachlorobenzene	ND	U	33.8	1790	ug/Kg	1	10/2/2012 21:31
Hexachlorobutadiene	ND	U	21.3	357	ug/Kg	1	10/2/2012 21:31
Hexachlorocyclopentadiene	ND	U	108	714	ug/Kg	1	10/2/2012 21:31
Hexachloroethane	ND	U	20.5	357	ug/Kg	1	10/2/2012 21:31
Indeno(1,2,3-cd)pyrene	ND	U	27.8	357	ug/Kg	1	10/2/2012 21:31
Isophorone	ND	U	16.2	357	ug/Kg	1	10/2/2012 21:31
Naphthalene	ND	U	30.8	357	ug/Kg	1	10/2/2012 21:31
4-Nitroaniline	ND	U	20.5	1790	ug/Kg	1	10/2/2012 21:31
Nitrobenzene	ND	U	20.5	357	ug/Kg	1	10/2/2012 21:31
4-Nitrophenol	ND	U	35.1	1790	ug/Kg	1	10/2/2012 21:31
Pentachlorophenol	ND	U	28.5	1790	ug/Kg	1	10/2/2012 21:31
Phenanthrene	ND	U	23.5	357	ug/Kg	1	10/2/2012 21:31
Phenol	ND	U	33.3	357	ug/Kg	1	10/2/2012 21:31
Pyrene	ND	U	15.1	357	ug/Kg	1	10/2/2012 21:31
n-Nitrosodi-n-propylamine	ND	U	102	357	ug/Kg	1	10/2/2012 21:31
Surrogates							
2,4,6-Tribromophenol	77.0			41.0-129	%	1	10/2/2012 21:31
2-Fluorobiphenyl	81.0			48.0-123	%	1	10/2/2012 21:31
2-Fluorophenol	71.0			42.0-123	%	1	10/2/2012 21:31
Nitrobenzene-d5	73.0			46.0-117	%	1	10/2/2012 21:31
Phenol-d6	76.0			48.0-125	%	1	10/2/2012 21:31
Terphenyl-d14	91.0			44.0-140	%	1	10/2/2012 21:31

Batch Information

Analytical Batch: **XMS1687**
 Analytical Method: **SW-846 8270D**
 Instrument: **MSD10**
 Analyst: **CMP**

Prep Batch: **XXX3128**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **10/01/2012 10:14**
 Prep Initial Wt./Vol.: **31.26 g**
 Prep Extract Vol: **10 mL**

Results of GAS-NW (5-6ft)

Client Sample ID: **GAS-NW (5-6ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: **31203112001-G**
 Lab Project ID: **31203112**

Collection Date: **09/25/2012 15:50**
 Received Date: **09/27/2012 15:25**
 Matrix: **Soil-Solid as dry weight**
 Solids (%): **89.70**

Results by MADEP EPH

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
C11-C22 Aromatics	ND	U	14.0	14.0	mg/kg	1	10/2/2012 17:34
C19-C36 Aliphatics	ND	U	7.19	7.19	mg/kg	1	10/2/2012 17:06
C9-C18 Aliphatics	ND	U	6.23	6.23	mg/kg	1	10/2/2012 17:06

Surrogates

2-Bromonaphthalene	87.4			40.0-140	%	1	10/2/2012 17:34
2-Fluorobiphenyl	81.0			40.0-140	%	1	10/2/2012 17:34
n-Tricosane	126			40.0-140	%	1	10/2/2012 17:06
o-Terphenyl	91.0			40.0-140	%	1	10/2/2012 17:34

Batch Information

Analytical Batch: **XGC2580**
 Analytical Method: **MADEP EPH**
 Instrument: **GC6**
 Analyst: **DTF**

Prep Batch: **XXX3123**
 Prep Method: **SW-846 3541/8015 EPH**
 Prep Date/Time: **09/28/2012 11:49**
 Prep Initial Wt./Vol.: **12.46 g**
 Prep Extract Vol: **10 mL**

Results of GAS-NE (5-6ft)

Client Sample ID: **GAS-NE (5-6ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112002-A
 Lab Project ID: 31203112

Collection Date: 09/25/2012 15:40
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 91.10

Results by SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	U	0.660	4.65	ug/Kg	1	10/1/2012 12:03
1,1,1-Trichloroethane	ND	U	0.701	4.65	ug/Kg	1	10/1/2012 12:03
1,1,2,2-Tetrachloroethane	ND	U	1.09	4.65	ug/Kg	1	10/1/2012 12:03
1,1,2-Trichloroethane	ND	U	0.967	4.65	ug/Kg	1	10/1/2012 12:03
1,1-Dichloroethane	ND	U	0.500	4.65	ug/Kg	1	10/1/2012 12:03
1,1-Dichloroethene	ND	U	1.08	4.65	ug/Kg	1	10/1/2012 12:03
1,1-Dichloropropene	ND	U	0.629	4.65	ug/Kg	1	10/1/2012 12:03
1,2,3-Trichlorobenzene	ND	U	0.774	4.65	ug/Kg	1	10/1/2012 12:03
1,2,3-Trichloropropane	ND	U	0.958	4.65	ug/Kg	1	10/1/2012 12:03
1,2,4-Trichlorobenzene	ND	U	0.678	4.65	ug/Kg	1	10/1/2012 12:03
1,2,4-Trimethylbenzene	ND	U	0.593	4.65	ug/Kg	1	10/1/2012 12:03
1,2-Dibromo-3-chloropropane	ND	U	6.89	27.9	ug/Kg	1	10/1/2012 12:03
1,2-Dibromoethane	ND	U	1.22	4.65	ug/Kg	1	10/1/2012 12:03
1,2-Dichlorobenzene	ND	U	0.661	4.65	ug/Kg	1	10/1/2012 12:03
1,2-Dichloroethane	ND	U	0.849	4.65	ug/Kg	1	10/1/2012 12:03
1,2-Dichloropropane	ND	U	1.07	4.65	ug/Kg	1	10/1/2012 12:03
1,3,5-Trimethylbenzene	ND	U	0.566	4.65	ug/Kg	1	10/1/2012 12:03
1,3-Dichlorobenzene	ND	U	0.669	4.65	ug/Kg	1	10/1/2012 12:03
1,3-Dichloropropane	ND	U	0.818	4.65	ug/Kg	1	10/1/2012 12:03
1,4-Dichlorobenzene	ND	U	0.628	4.65	ug/Kg	1	10/1/2012 12:03
2,2-Dichloropropane	ND	U	0.687	4.65	ug/Kg	1	10/1/2012 12:03
2-Butanone	ND	U	3.14	23.3	ug/Kg	1	10/1/2012 12:03
2-Chlorotoluene	ND	U	0.872	4.65	ug/Kg	1	10/1/2012 12:03
2-Hexanone	ND	U	3.00	11.6	ug/Kg	1	10/1/2012 12:03
4-Chlorotoluene	ND	U	0.703	4.65	ug/Kg	1	10/1/2012 12:03
4-Isopropyltoluene	ND	U	0.600	4.65	ug/Kg	1	10/1/2012 12:03
4-Methyl-2-pentanone	ND	U	3.48	11.6	ug/Kg	1	10/1/2012 12:03
Acetone	ND	U	3.73	46.5	ug/Kg	1	10/1/2012 12:03
Benzene	ND	U	0.661	4.65	ug/Kg	1	10/1/2012 12:03
Bromobenzene	ND	U	0.648	4.65	ug/Kg	1	10/1/2012 12:03
Bromochloromethane	ND	U	0.874	4.65	ug/Kg	1	10/1/2012 12:03
Bromodichloromethane	ND	U	0.655	4.65	ug/Kg	1	10/1/2012 12:03
Bromoform	ND	U	0.673	4.65	ug/Kg	1	10/1/2012 12:03
Bromomethane	ND	U	1.35	4.65	ug/Kg	1	10/1/2012 12:03
n-Butylbenzene	ND	U	0.611	4.65	ug/Kg	1	10/1/2012 12:03
Carbon disulfide	ND	U	0.487	4.65	ug/Kg	1	10/1/2012 12:03
Carbon tetrachloride	ND	U	0.529	4.65	ug/Kg	1	10/1/2012 12:03
Chlorobenzene	ND	U	0.649	4.65	ug/Kg	1	10/1/2012 12:03
Chloroethane	ND	U	0.930	4.65	ug/Kg	1	10/1/2012 12:03
Chloroform	ND	U	0.593	4.65	ug/Kg	1	10/1/2012 12:03
Chloromethane	ND	U	1.33	4.65	ug/Kg	1	10/1/2012 12:03
Dibromochloromethane	ND	U	1.03	4.65	ug/Kg	1	10/1/2012 12:03
Dibromomethane	ND	U	0.820	4.65	ug/Kg	1	10/1/2012 12:03

Results of GAS-NE (5-6ft)

Client Sample ID: **GAS-NE (5-6ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112002-A
 Lab Project ID: 31203112

Collection Date: 09/25/2012 15:40
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 91.10

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	0.977	4.65	ug/Kg	1	10/1/2012 12:03
cis-1,3-Dichloropropene	ND	U	0.958	4.65	ug/Kg	1	10/1/2012 12:03
trans-1,3-Dichloropropene	ND	U	0.878	4.65	ug/Kg	1	10/1/2012 12:03
Diisopropyl Ether	ND	U	0.764	4.65	ug/Kg	1	10/1/2012 12:03
Ethyl Benzene	ND	U	0.656	4.65	ug/Kg	1	10/1/2012 12:03
Hexachlorobutadiene	ND	U	0.639	4.65	ug/Kg	1	10/1/2012 12:03
Isopropylbenzene (Cumene)	ND	U	0.579	4.65	ug/Kg	1	10/1/2012 12:03
Methyl iodide	ND	U	0.713	4.65	ug/Kg	1	10/1/2012 12:03
Methylene chloride	1.22	J	0.977	18.6	ug/Kg	1	10/1/2012 12:03
Naphthalene	ND	U	0.846	4.65	ug/Kg	1	10/1/2012 12:03
Styrene	ND	U	0.536	4.65	ug/Kg	1	10/1/2012 12:03
Tetrachloroethene	ND	U	0.699	4.65	ug/Kg	1	10/1/2012 12:03
Toluene	ND	U	0.640	4.65	ug/Kg	1	10/1/2012 12:03
Trichloroethene	ND	U	0.783	4.65	ug/Kg	1	10/1/2012 12:03
Trichlorofluoromethane	ND	U	0.940	4.65	ug/Kg	1	10/1/2012 12:03
Vinyl chloride	ND	U	0.884	4.65	ug/Kg	1	10/1/2012 12:03
Xylene (total)	ND	U	1.65	9.30	ug/Kg	1	10/1/2012 12:03
cis-1,2-Dichloroethene	ND	U	0.568	4.65	ug/Kg	1	10/1/2012 12:03
m,p-Xylene	ND	U	1.57	9.30	ug/Kg	1	10/1/2012 12:03
n-Propylbenzene	ND	U	0.681	4.65	ug/Kg	1	10/1/2012 12:03
o-Xylene	ND	U	0.713	4.65	ug/Kg	1	10/1/2012 12:03
sec-Butylbenzene	ND	U	0.558	4.65	ug/Kg	1	10/1/2012 12:03
tert-Butyl methyl ether (MTBE)	ND	U	0.740	4.65	ug/Kg	1	10/1/2012 12:03
tert-Butylbenzene	ND	U	0.626	4.65	ug/Kg	1	10/1/2012 12:03
trans-1,2-Dichloroethene	ND	U	0.679	4.65	ug/Kg	1	10/1/2012 12:03
trans-1,4-Dichloro-2-butene	ND	U	3.91	23.3	ug/Kg	1	10/1/2012 12:03

Surrogates

1,2-Dichloroethane-d4	113			55.0-173	%	1	10/1/2012 12:03
4-Bromofluorobenzene	106			23.0-141	%	1	10/1/2012 12:03
Toluene d8	107			57.0-134	%	1	10/1/2012 12:03

Batch Information

Analytical Batch: **VMS2595**
 Analytical Method: **SW-846 8260B**
 Instrument: **MSD9**
 Analyst: **DVO**

Prep Batch: **VXX4069**
 Prep Method: **SW-846 5035 SL**
 Prep Date/Time: **09/28/2012 11:02**
 Prep Initial Wt./Vol.: **5.9 g**
 Prep Extract Vol: **5 mL**

Results of GAS-NE (5-6ft)

Client Sample ID: **GAS-NE (5-6ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: **31203112002-E**
 Lab Project ID: **31203112**

Collection Date: **09/25/2012 15:40**
 Received Date: **09/27/2012 15:25**
 Matrix: **Soil-Solid as dry weight**
 Solids (%): **91.10**

Results by MADEP VPH

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
C5-C8 Aliphatics	ND	U	4.91	4.91	mg/kg	1	09/28/2012 14:38
C9-C10 Aromatics	ND	U	4.91	4.91	mg/kg	1	09/28/2012 14:38
C9-C12 Aliphatics	ND	U	4.91	4.91	mg/kg	1	09/28/2012 14:38
Surrogates							
FID - 4-Bromofluorobenzene	88.0			70.0-130	%	1	09/28/2012 14:38
PID - 4-Bromofluorobenzene	75.0			70.0-130	%	1	09/28/2012 14:38

Batch Information

Analytical Batch: **VGC2161**
 Analytical Method: **MADEP VPH**
 Instrument: **GC4**
 Analyst: **MDY**

Prep Batch: **VXX4063**
 Prep Method: **SW-846 5035 VPH prep**
 Prep Date/Time: **09/28/2012 11:02**
 Prep Initial Wt./Vol.: **5.59 g**
 Prep Extract Vol: **5 mL**

Results of GAS-NE (5-6ft)

Client Sample ID: **GAS-NE (5-6ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: **31203112002-G**
 Lab Project ID: **31203112**

Collection Date: **09/25/2012 15:40**
 Received Date: **09/27/2012 15:25**
 Matrix: **Soil-Solid as dry weight**
 Solids (%): **91.10**

Results by SW-846 8270D

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	ND	U	28.4	322	ug/Kg	1	10/2/2012 21:54
1,2-Dichlorobenzene	ND	U	16.1	322	ug/Kg	1	10/2/2012 21:54
1,3-Dichlorobenzene	ND	U	21.7	322	ug/Kg	1	10/2/2012 21:54
1,4-Dichlorobenzene	ND	U	22.7	322	ug/Kg	1	10/2/2012 21:54
2,4,5-Trichlorophenol	ND	U	21.5	322	ug/Kg	1	10/2/2012 21:54
2,4,6-Trichlorophenol	ND	U	21.8	322	ug/Kg	1	10/2/2012 21:54
2,4-Dichlorophenol	ND	U	18.6	322	ug/Kg	1	10/2/2012 21:54
2,4-Dinitrophenol	ND	U	29.8	1610	ug/Kg	1	10/2/2012 21:54
2,4-Dinitrotoluene	ND	U	16.3	322	ug/Kg	1	10/2/2012 21:54
2,6-Dinitrotoluene	ND	U	23.0	322	ug/Kg	1	10/2/2012 21:54
2-Chloronaphthalene	ND	U	18.9	322	ug/Kg	1	10/2/2012 21:54
2-Chlorophenol	ND	U	17.1	322	ug/Kg	1	10/2/2012 21:54
2-Methylnaphthalene	ND	U	26.0	322	ug/Kg	1	10/2/2012 21:54
2-Methylphenol	ND	U	17.8	322	ug/Kg	1	10/2/2012 21:54
2-Nitroaniline	ND	U	21.2	322	ug/Kg	1	10/2/2012 21:54
2-Nitrophenol	ND	U	15.4	322	ug/Kg	1	10/2/2012 21:54
3 and/or 4-Methylphenol	ND	U	20.9	322	ug/Kg	1	10/2/2012 21:54
3,3'-Dichlorobenzidine	ND	U	15.4	644	ug/Kg	1	10/2/2012 21:54
3-Nitroaniline	ND	U	14.5	1610	ug/Kg	1	10/2/2012 21:54
4,6-Dinitro-2-methylphenol	ND	U	15.1	1610	ug/Kg	1	10/2/2012 21:54
4-Chloro-3-methylphenol	ND	U	16.1	322	ug/Kg	1	10/2/2012 21:54
4-Chloroaniline	ND	U	25.7	322	ug/Kg	1	10/2/2012 21:54
4-Chlorophenyl phenyl ether	ND	U	34.4	322	ug/Kg	1	10/2/2012 21:54
Acenaphthene	ND	U	41.6	322	ug/Kg	1	10/2/2012 21:54
Acenaphthylene	ND	U	48.9	322	ug/Kg	1	10/2/2012 21:54
Anthracene	ND	U	42.8	322	ug/Kg	1	10/2/2012 21:54
Benzo(a)anthracene	ND	U	42.3	322	ug/Kg	1	10/2/2012 21:54
Benzo(a)pyrene	ND	U	50.1	322	ug/Kg	1	10/2/2012 21:54
Benzo(b)fluoranthene	ND	U	48.9	322	ug/Kg	1	10/2/2012 21:54
Benzo(g,h,i)perylene	ND	U	42.1	322	ug/Kg	1	10/2/2012 21:54
Benzo(k)fluoranthene	ND	U	50.3	322	ug/Kg	1	10/2/2012 21:54
Benzoic acid	ND	U	93.4	1610	ug/Kg	1	10/2/2012 21:54
Bis(2-Chloroethoxy)methane	ND	U	14.5	322	ug/Kg	1	10/2/2012 21:54
Bis(2-Chloroethyl)ether	ND	U	30.0	322	ug/Kg	1	10/2/2012 21:54
Bis(2-Chloroisopropyl)ether	ND	U	28.1	322	ug/Kg	1	10/2/2012 21:54
Bis(2-Ethylhexyl)phthalate	ND	U	15.4	322	ug/Kg	1	10/2/2012 21:54
4-Bromophenyl phenyl ether	ND	U	21.2	322	ug/Kg	1	10/2/2012 21:54
Butyl benzyl phthalate	ND	U	28.0	322	ug/Kg	1	10/2/2012 21:54
Chrysene	ND	U	37.5	322	ug/Kg	1	10/2/2012 21:54
Di-n-butyl phthalate	ND	U	15.2	322	ug/Kg	1	10/2/2012 21:54
Di-n-octyl phthalate	ND	U	17.8	322	ug/Kg	1	10/2/2012 21:54
Dibenz(a,h)anthracene	ND	U	14.5	322	ug/Kg	1	10/2/2012 21:54
Dibenzofuran	ND	U	25.2	322	ug/Kg	1	10/2/2012 21:54

Results of GAS-NE (5-6ft)

Client Sample ID: **GAS-NE (5-6ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: **31203112002-G**
 Lab Project ID: **31203112**

Collection Date: **09/25/2012 15:40**
 Received Date: **09/27/2012 15:25**
 Matrix: **Soil-Solid as dry weight**
 Solids (%): **91.10**

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diethyl phthalate	ND	U	17.4	322	ug/Kg	1	10/2/2012 21:54
Dimethyl phthalate	ND	U	24.7	322	ug/Kg	1	10/2/2012 21:54
2,4-Dimethylphenol	ND	U	23.6	322	ug/Kg	1	10/2/2012 21:54
Diphenylamine	ND	U	14.5	322	ug/Kg	1	10/2/2012 21:54
Fluoranthene	ND	U	30.2	322	ug/Kg	1	10/2/2012 21:54
Fluorene	ND	U	17.1	322	ug/Kg	1	10/2/2012 21:54
Hexachlorobenzene	ND	U	30.5	1610	ug/Kg	1	10/2/2012 21:54
Hexachlorobutadiene	ND	U	19.2	322	ug/Kg	1	10/2/2012 21:54
Hexachlorocyclopentadiene	ND	U	97.4	644	ug/Kg	1	10/2/2012 21:54
Hexachloroethane	ND	U	18.5	322	ug/Kg	1	10/2/2012 21:54
Indeno(1,2,3-cd)pyrene	ND	U	25.1	322	ug/Kg	1	10/2/2012 21:54
Isophorone	ND	U	14.6	322	ug/Kg	1	10/2/2012 21:54
Naphthalene	ND	U	27.8	322	ug/Kg	1	10/2/2012 21:54
4-Nitroaniline	ND	U	18.5	1610	ug/Kg	1	10/2/2012 21:54
Nitrobenzene	ND	U	18.5	322	ug/Kg	1	10/2/2012 21:54
4-Nitrophenol	ND	U	31.7	1610	ug/Kg	1	10/2/2012 21:54
Pentachlorophenol	ND	U	25.7	1610	ug/Kg	1	10/2/2012 21:54
Phenanthrene	ND	U	21.2	322	ug/Kg	1	10/2/2012 21:54
Phenol	ND	U	30.0	322	ug/Kg	1	10/2/2012 21:54
Pyrene	ND	U	13.6	322	ug/Kg	1	10/2/2012 21:54
n-Nitrosodi-n-propylamine	ND	U	92.2	322	ug/Kg	1	10/2/2012 21:54
Surrogates							
2,4,6-Tribromophenol	83.0			41.0-129	%	1	10/2/2012 21:54
2-Fluorobiphenyl	82.0			48.0-123	%	1	10/2/2012 21:54
2-Fluorophenol	68.0			42.0-123	%	1	10/2/2012 21:54
Nitrobenzene-d5	71.0			46.0-117	%	1	10/2/2012 21:54
Phenol-d6	74.0			48.0-125	%	1	10/2/2012 21:54
Terphenyl-d14	91.0			44.0-140	%	1	10/2/2012 21:54

Batch Information

Analytical Batch: **XMS1687**
 Analytical Method: **SW-846 8270D**
 Instrument: **MSD10**
 Analyst: **CMP**

Prep Batch: **XXX3128**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **10/01/2012 10:14**
 Prep Initial Wt./Vol.: **34.14 g**
 Prep Extract Vol: **10 mL**

Results of GAS-NE (5-6ft)

Client Sample ID: **GAS-NE (5-6ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112002-G
 Lab Project ID: 31203112

Collection Date: 09/25/2012 15:40
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 91.10

Results by MADEP EPH

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
C11-C22 Aromatics	ND	U	12.7	12.7	mg/kg	1	10/2/2012 18:32
C19-C36 Aliphatics	ND	U	6.52	6.52	mg/kg	1	10/2/2012 18:03
C9-C18 Aliphatics	ND	U	5.65	5.65	mg/kg	1	10/2/2012 18:03
Surrogates							
2-Bromonaphthalene	84.1			40.0-140	%	1	10/2/2012 18:32
2-Fluorobiphenyl	78.0			40.0-140	%	1	10/2/2012 18:32
n-Tricosane	118			40.0-140	%	1	10/2/2012 18:03
o-Terphenyl	87.0			40.0-140	%	1	10/2/2012 18:32

Batch Information

Analytical Batch: **XGC2580**
 Analytical Method: **MADEP EPH**
 Instrument: **GC6**
 Analyst: **DTF**

Prep Batch: **XXX3123**
 Prep Method: **SW-846 3541/8015 EPH**
 Prep Date/Time: **09/28/2012 11:49**
 Prep Initial Wt./Vol.: **13.53 g**
 Prep Extract Vol: **10 mL**

Results of GAS-E (5ft)

Client Sample ID: **GAS-E (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112003-A
 Lab Project ID: 31203112

Collection Date: 09/26/2012 09:00
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 94.40

Results by SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	U	0.726	5.12	ug/Kg	1	09/28/2012 16:55
1,1,1-Trichloroethane	ND	U	0.772	5.12	ug/Kg	1	09/28/2012 16:55
1,1,2,2-Tetrachloroethane	ND	U	1.20	5.12	ug/Kg	1	09/28/2012 16:55
1,1,2-Trichloroethane	ND	U	1.06	5.12	ug/Kg	1	09/28/2012 16:55
1,1-Dichloroethane	ND	U	0.551	5.12	ug/Kg	1	09/28/2012 16:55
1,1-Dichloroethene	ND	U	1.19	5.12	ug/Kg	1	09/28/2012 16:55
1,1-Dichloropropene	ND	U	0.692	5.12	ug/Kg	1	09/28/2012 16:55
1,2,3-Trichlorobenzene	ND	U	0.852	5.12	ug/Kg	1	09/28/2012 16:55
1,2,3-Trichloropropane	ND	U	1.05	5.12	ug/Kg	1	09/28/2012 16:55
1,2,4-Trichlorobenzene	ND	U	0.747	5.12	ug/Kg	1	09/28/2012 16:55
1,2,4-Trimethylbenzene	ND	U	0.652	5.12	ug/Kg	1	09/28/2012 16:55
1,2-Dibromo-3-chloropropane	ND	U	7.59	30.7	ug/Kg	1	09/28/2012 16:55
1,2-Dibromoethane	ND	U	1.34	5.12	ug/Kg	1	09/28/2012 16:55
1,2-Dichlorobenzene	ND	U	0.728	5.12	ug/Kg	1	09/28/2012 16:55
1,2-Dichloroethane	ND	U	0.935	5.12	ug/Kg	1	09/28/2012 16:55
1,2-Dichloropropane	ND	U	1.18	5.12	ug/Kg	1	09/28/2012 16:55
1,3,5-Trimethylbenzene	ND	U	0.623	5.12	ug/Kg	1	09/28/2012 16:55
1,3-Dichlorobenzene	ND	U	0.736	5.12	ug/Kg	1	09/28/2012 16:55
1,3-Dichloropropane	ND	U	0.900	5.12	ug/Kg	1	09/28/2012 16:55
1,4-Dichlorobenzene	ND	U	0.691	5.12	ug/Kg	1	09/28/2012 16:55
2,2-Dichloropropane	ND	U	0.756	5.12	ug/Kg	1	09/28/2012 16:55
2-Butanone	ND	U	3.46	25.6	ug/Kg	1	09/28/2012 16:55
2-Chlorotoluene	ND	U	0.959	5.12	ug/Kg	1	09/28/2012 16:55
2-Hexanone	ND	U	3.30	12.8	ug/Kg	1	09/28/2012 16:55
4-Chlorotoluene	ND	U	0.774	5.12	ug/Kg	1	09/28/2012 16:55
4-Isopropyltoluene	ND	U	0.660	5.12	ug/Kg	1	09/28/2012 16:55
4-Methyl-2-pentanone	ND	U	3.83	12.8	ug/Kg	1	09/28/2012 16:55
Acetone	ND	U	4.11	51.2	ug/Kg	1	09/28/2012 16:55
Benzene	ND	U	0.728	5.12	ug/Kg	1	09/28/2012 16:55
Bromobenzene	ND	U	0.714	5.12	ug/Kg	1	09/28/2012 16:55
Bromochloromethane	ND	U	0.963	5.12	ug/Kg	1	09/28/2012 16:55
Bromodichloromethane	ND	U	0.721	5.12	ug/Kg	1	09/28/2012 16:55
Bromoform	ND	U	0.741	5.12	ug/Kg	1	09/28/2012 16:55
Bromomethane	ND	U	1.48	5.12	ug/Kg	1	09/28/2012 16:55
n-Butylbenzene	ND	U	0.673	5.12	ug/Kg	1	09/28/2012 16:55
Carbon disulfide	ND	U	0.536	5.12	ug/Kg	1	09/28/2012 16:55
Carbon tetrachloride	ND	U	0.583	5.12	ug/Kg	1	09/28/2012 16:55
Chlorobenzene	ND	U	0.715	5.12	ug/Kg	1	09/28/2012 16:55
Chloroethane	ND	U	1.02	5.12	ug/Kg	1	09/28/2012 16:55
Chloroform	ND	U	0.652	5.12	ug/Kg	1	09/28/2012 16:55
Chloromethane	ND	U	1.46	5.12	ug/Kg	1	09/28/2012 16:55
Dibromochloromethane	ND	U	1.14	5.12	ug/Kg	1	09/28/2012 16:55
Dibromomethane	ND	U	0.903	5.12	ug/Kg	1	09/28/2012 16:55

Results of GAS-E (5ft)

Client Sample ID: **GAS-E (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112003-A
 Lab Project ID: 31203112

Collection Date: 09/26/2012 09:00
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 94.40

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	1.08	5.12	ug/Kg	1	09/28/2012 16:55
cis-1,3-Dichloropropene	ND	U	1.05	5.12	ug/Kg	1	09/28/2012 16:55
trans-1,3-Dichloropropene	ND	U	0.967	5.12	ug/Kg	1	09/28/2012 16:55
Diisopropyl Ether	ND	U	0.841	5.12	ug/Kg	1	09/28/2012 16:55
Ethyl Benzene	ND	U	0.722	5.12	ug/Kg	1	09/28/2012 16:55
Hexachlorobutadiene	ND	U	0.703	5.12	ug/Kg	1	09/28/2012 16:55
Isopropylbenzene (Cumene)	ND	U	0.637	5.12	ug/Kg	1	09/28/2012 16:55
Methyl iodide	ND	U	0.784	5.12	ug/Kg	1	09/28/2012 16:55
Methylene chloride	1.28	J	1.08	20.5	ug/Kg	1	09/28/2012 16:55
Naphthalene	ND	U	0.931	5.12	ug/Kg	1	09/28/2012 16:55
Styrene	ND	U	0.590	5.12	ug/Kg	1	09/28/2012 16:55
Tetrachloroethene	ND	U	0.769	5.12	ug/Kg	1	09/28/2012 16:55
Toluene	ND	U	0.705	5.12	ug/Kg	1	09/28/2012 16:55
Trichloroethene	ND	U	0.862	5.12	ug/Kg	1	09/28/2012 16:55
Trichlorofluoromethane	ND	U	1.03	5.12	ug/Kg	1	09/28/2012 16:55
Vinyl chloride	ND	U	0.973	5.12	ug/Kg	1	09/28/2012 16:55
Xylene (total)	ND	U	1.81	10.2	ug/Kg	1	09/28/2012 16:55
cis-1,2-Dichloroethene	ND	U	0.626	5.12	ug/Kg	1	09/28/2012 16:55
m,p-Xylene	ND	U	1.73	10.2	ug/Kg	1	09/28/2012 16:55
n-Propylbenzene	ND	U	0.750	5.12	ug/Kg	1	09/28/2012 16:55
o-Xylene	ND	U	0.784	5.12	ug/Kg	1	09/28/2012 16:55
sec-Butylbenzene	ND	U	0.614	5.12	ug/Kg	1	09/28/2012 16:55
tert-Butyl methyl ether (MTBE)	ND	U	0.814	5.12	ug/Kg	1	09/28/2012 16:55
tert-Butylbenzene	ND	U	0.689	5.12	ug/Kg	1	09/28/2012 16:55
trans-1,2-Dichloroethene	ND	U	0.748	5.12	ug/Kg	1	09/28/2012 16:55
trans-1,4-Dichloro-2-butene	ND	U	4.30	25.6	ug/Kg	1	09/28/2012 16:55
Surrogates							
1,2-Dichloroethane-d4	114			55.0-173	%	1	09/28/2012 16:55
4-Bromofluorobenzene	101			23.0-141	%	1	09/28/2012 16:55
Toluene d8	105			57.0-134	%	1	09/28/2012 16:55

Batch Information

Analytical Batch: **VMS2590**
 Analytical Method: **SW-846 8260B**
 Instrument: **MSD9**
 Analyst: **DVO**

Prep Batch: **VXX4064**
 Prep Method: **SW-846 5035 SL**
 Prep Date/Time: **09/28/2012 11:06**
 Prep Initial Wt./Vol.: **5.17 g**
 Prep Extract Vol: **5 mL**

Results of GAS-E (5ft)

Client Sample ID: **GAS-E (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112003-E
 Lab Project ID: 31203112

Collection Date: 09/26/2012 09:00
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 94.40

Results by MADEP VPH

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
C5-C8 Aliphatics	ND	U	4.86	4.86	mg/kg	1	09/28/2012 15:04
C9-C10 Aromatics	ND	U	4.86	4.86	mg/kg	1	09/28/2012 15:04
C9-C12 Aliphatics	ND	U	4.86	4.86	mg/kg	1	09/28/2012 15:04

Surrogates

FID - 4-Bromofluorobenzene	91.0			70.0-130	%	1	09/28/2012 15:04
PID - 4-Bromofluorobenzene	78.0			70.0-130	%	1	09/28/2012 15:04

Batch Information

Analytical Batch: **VGC2161**
 Analytical Method: **MADEP VPH**
 Instrument: **GC4**
 Analyst: **MDY**

Prep Batch: **VXX4063**
 Prep Method: **SW-846 5035 VPH prep**
 Prep Date/Time: **09/28/2012 11:06**
 Prep Initial Wt./Vol.: **5.45 g**
 Prep Extract Vol: **5 mL**

Results of GAS-E (5ft)

Client Sample ID: **GAS-E (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112003-G
 Lab Project ID: 31203112

Collection Date: 09/26/2012 09:00
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 94.40

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	U	39.7	331	ug/Kg	1	10/8/2012 18:52
1,2-Dichlorobenzene	ND	U	34.9	331	ug/Kg	1	10/8/2012 18:52
1,3-Dichlorobenzene	ND	U	36.6	331	ug/Kg	1	10/8/2012 18:52
1,4-Dichlorobenzene	ND	U	39.3	331	ug/Kg	1	10/8/2012 18:52
2,4,5-Trichlorophenol	ND	U	76.0	331	ug/Kg	1	10/8/2012 18:52
2,4,6-Trichlorophenol	ND	U	56.1	331	ug/Kg	1	10/8/2012 18:52
2,4-Dichlorophenol	ND	U	37.7	331	ug/Kg	1	10/8/2012 18:52
2,4-Dinitrophenol	ND	U	30.7	1660	ug/Kg	1	10/8/2012 18:52
2,4-Dinitrotoluene	ND	U	47.4	331	ug/Kg	1	10/8/2012 18:52
2,6-Dinitrotoluene	ND	U	45.9	331	ug/Kg	1	10/8/2012 18:52
2-Chloronaphthalene	ND	U	65.2	331	ug/Kg	1	10/8/2012 18:52
2-Chlorophenol	ND	U	42.3	331	ug/Kg	1	10/8/2012 18:52
2-Methylnaphthalene	ND	U	41.4	331	ug/Kg	1	10/8/2012 18:52
2-Methylphenol	ND	U	52.2	331	ug/Kg	1	10/8/2012 18:52
2-Nitroaniline	ND	U	62.2	331	ug/Kg	1	10/8/2012 18:52
2-Nitrophenol	ND	U	58.8	331	ug/Kg	1	10/8/2012 18:52
3 and/or 4-Methylphenol	ND	U	46.8	331	ug/Kg	1	10/8/2012 18:52
3,3'-Dichlorobenzidine	ND	U	45.5	662	ug/Kg	1	10/8/2012 18:52
3-Nitroaniline	ND	U	37.4	1660	ug/Kg	1	10/8/2012 18:52
4,6-Dinitro-2-methylphenol	ND	U	15.6	1660	ug/Kg	1	10/8/2012 18:52
4-Chloro-3-methylphenol	ND	U	43.7	331	ug/Kg	1	10/8/2012 18:52
4-Chloroaniline	ND	U	47.1	331	ug/Kg	1	10/8/2012 18:52
4-Chlorophenyl phenyl ether	ND	U	42.7	331	ug/Kg	1	10/8/2012 18:52
Acenaphthene	ND	U	42.7	331	ug/Kg	1	10/8/2012 18:52
Acenaphthylene	ND	U	50.3	331	ug/Kg	1	10/8/2012 18:52
Anthracene	ND	U	44.0	331	ug/Kg	1	10/8/2012 18:52
Benzo(a)anthracene	ND	U	43.5	331	ug/Kg	1	10/8/2012 18:52
Benzo(a)pyrene	ND	U	51.5	331	ug/Kg	1	10/8/2012 18:52
Benzo(b)fluoranthene	ND	U	50.3	331	ug/Kg	1	10/8/2012 18:52
Benzo(g,h,i)perylene	ND	U	43.3	331	ug/Kg	1	10/8/2012 18:52
Benzo(k)fluoranthene	ND	U	51.7	331	ug/Kg	1	10/8/2012 18:52
Benzoic acid	ND	U	96.1	1660	ug/Kg	1	10/8/2012 18:52
Bis(2-Chloroethoxy)methane	ND	U	52.2	331	ug/Kg	1	10/8/2012 18:52
Bis(2-Chloroethyl)ether	ND	U	47.9	331	ug/Kg	1	10/8/2012 18:52
Bis(2-Chloroisopropyl)ether	ND	U	29.5	331	ug/Kg	1	10/8/2012 18:52
Bis(2-Ethylhexyl)phthalate	ND	U	52.5	331	ug/Kg	1	10/8/2012 18:52
4-Bromophenyl phenyl ether	ND	U	49.3	331	ug/Kg	1	10/8/2012 18:52
Butyl benzyl phthalate	ND	U	43.0	331	ug/Kg	1	10/8/2012 18:52
Chrysene	ND	U	37.4	331	ug/Kg	1	10/8/2012 18:52
Di-n-butyl phthalate	ND	U	40.6	331	ug/Kg	1	10/8/2012 18:52
Di-n-octyl phthalate	ND	U	47.1	331	ug/Kg	1	10/8/2012 18:52
Dibenz(a,h)anthracene	ND	U	57.0	331	ug/Kg	1	10/8/2012 18:52
Dibenzofuran	ND	U	47.7	331	ug/Kg	1	10/8/2012 18:52

Results of GAS-E (5ft)

Client Sample ID: **GAS-E (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112003-G
 Lab Project ID: 31203112

Collection Date: 09/26/2012 09:00
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 94.40

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diethyl phthalate	ND	U	48.9	331	ug/Kg	1	10/8/2012 18:52
Dimethyl phthalate	ND	U	43.9	331	ug/Kg	1	10/8/2012 18:52
2,4-Dimethylphenol	ND	U	73.0	331	ug/Kg	1	10/8/2012 18:52
Diphenylamine	ND	U	42.4	331	ug/Kg	1	10/8/2012 18:52
Fluoranthene	ND	U	43.2	331	ug/Kg	1	10/8/2012 18:52
Fluorene	ND	U	45.7	331	ug/Kg	1	10/8/2012 18:52
Hexachlorobenzene	ND	U	64.9	1660	ug/Kg	1	10/8/2012 18:52
Hexachlorobutadiene	ND	U	38.1	331	ug/Kg	1	10/8/2012 18:52
Hexachlorocyclopentadiene	ND	U	29.7	662	ug/Kg	1	10/8/2012 18:52
Hexachloroethane	ND	U	33.5	331	ug/Kg	1	10/8/2012 18:52
Indeno(1,2,3-cd)pyrene	ND	U	48.7	331	ug/Kg	1	10/8/2012 18:52
Isophorone	ND	U	41.0	331	ug/Kg	1	10/8/2012 18:52
Naphthalene	ND	U	49.4	331	ug/Kg	1	10/8/2012 18:52
4-Nitroaniline	ND	U	55.0	1660	ug/Kg	1	10/8/2012 18:52
Nitrobenzene	ND	U	48.3	331	ug/Kg	1	10/8/2012 18:52
4-Nitrophenol	ND	U	32.6	1660	ug/Kg	1	10/8/2012 18:52
Pentachlorophenol	ND	U	105	1660	ug/Kg	1	10/8/2012 18:52
Phenanthrene	ND	U	35.1	331	ug/Kg	1	10/8/2012 18:52
Phenol	ND	U	42.7	331	ug/Kg	1	10/8/2012 18:52
Pyrene	ND	U	44.7	331	ug/Kg	1	10/8/2012 18:52
n-Nitrosodi-n-propylamine	ND	U	52.5	331	ug/Kg	1	10/8/2012 18:52
Surrogates							
2,4,6-Tribromophenol	76.0			41.0-129	%	1	10/8/2012 18:52
2-Fluorobiphenyl	89.0			48.0-123	%	1	10/8/2012 18:52
2-Fluorophenol	81.0			42.0-123	%	1	10/8/2012 18:52
Nitrobenzene-d5	84.0			46.0-117	%	1	10/8/2012 18:52
Phenol-d6	87.0			48.0-125	%	1	10/8/2012 18:52
Terphenyl-d14	89.0			44.0-140	%	1	10/8/2012 18:52

Batch Information

Analytical Batch: XMS1695
 Analytical Method: SW-846 8270D
 Instrument: MSD10
 Analyst: CMP

Prep Batch: XXX3161
 Prep Method: SW-846 3541
 Prep Date/Time: 10/08/2012 09:48
 Prep Initial Wt./Vol.: 32.02 g
 Prep Extract Vol: 10 mL

Results of GAS-E (5ft)

Client Sample ID: **GAS-E (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112003-G
 Lab Project ID: 31203112

Collection Date: 09/26/2012 09:00
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 94.40

Results by MADEP EPH

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
C11-C22 Aromatics	ND	U	11.9	11.9	mg/kg	1	10/2/2012 19:29
C19-C36 Aliphatics	ND	U	6.15	6.15	mg/kg	1	10/2/2012 19:00
C9-C18 Aliphatics	ND	U	5.32	5.32	mg/kg	1	10/2/2012 19:00

Surrogates

2-Bromonaphthalene	86.2			40.0-140	%	1	10/2/2012 19:29
2-Fluorobiphenyl	80.0			40.0-140	%	1	10/2/2012 19:29
n-Tricosane	124			40.0-140	%	1	10/2/2012 19:00
o-Terphenyl	94.0			40.0-140	%	1	10/2/2012 19:29

Batch Information

Analytical Batch: **XGC2580**
 Analytical Method: **MADEP EPH**
 Instrument: **GC6**
 Analyst: **DTF**

Prep Batch: **XXX3123**
 Prep Method: **SW-846 3541/8015 EPH**
 Prep Date/Time: **09/28/2012 11:49**
 Prep Initial Wt./Vol.: **13.85 g**
 Prep Extract Vol: **10 mL**

Results of GAS-W (5ft)

Client Sample ID: **GAS-W (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112004-A
 Lab Project ID: 31203112

Collection Date: 09/26/2012 09:05
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 95.40

Results by SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	U	0.693	4.89	ug/Kg	1	09/28/2012 18:41
1,1,1-Trichloroethane	ND	U	0.737	4.89	ug/Kg	1	09/28/2012 18:41
1,1,2,2-Tetrachloroethane	ND	U	1.14	4.89	ug/Kg	1	09/28/2012 18:41
1,1,2-Trichloroethane	ND	U	1.02	4.89	ug/Kg	1	09/28/2012 18:41
1,1-Dichloroethane	ND	U	0.526	4.89	ug/Kg	1	09/28/2012 18:41
1,1-Dichloroethene	ND	U	1.13	4.89	ug/Kg	1	09/28/2012 18:41
1,1-Dichloropropene	ND	U	0.661	4.89	ug/Kg	1	09/28/2012 18:41
1,2,3-Trichlorobenzene	ND	U	0.813	4.89	ug/Kg	1	09/28/2012 18:41
1,2,3-Trichloropropane	ND	U	1.01	4.89	ug/Kg	1	09/28/2012 18:41
1,2,4-Trichlorobenzene	ND	U	0.713	4.89	ug/Kg	1	09/28/2012 18:41
1,2,4-Trimethylbenzene	ND	U	0.623	4.89	ug/Kg	1	09/28/2012 18:41
1,2-Dibromo-3-chloropropane	ND	U	7.24	29.3	ug/Kg	1	09/28/2012 18:41
1,2-Dibromoethane	ND	U	1.28	4.89	ug/Kg	1	09/28/2012 18:41
1,2-Dichlorobenzene	ND	U	0.695	4.89	ug/Kg	1	09/28/2012 18:41
1,2-Dichloroethane	ND	U	0.893	4.89	ug/Kg	1	09/28/2012 18:41
1,2-Dichloropropane	ND	U	1.12	4.89	ug/Kg	1	09/28/2012 18:41
1,3,5-Trimethylbenzene	ND	U	0.594	4.89	ug/Kg	1	09/28/2012 18:41
1,3-Dichlorobenzene	ND	U	0.703	4.89	ug/Kg	1	09/28/2012 18:41
1,3-Dichloropropane	ND	U	0.859	4.89	ug/Kg	1	09/28/2012 18:41
1,4-Dichlorobenzene	ND	U	0.660	4.89	ug/Kg	1	09/28/2012 18:41
2,2-Dichloropropane	ND	U	0.721	4.89	ug/Kg	1	09/28/2012 18:41
2-Butanone	ND	U	3.30	24.4	ug/Kg	1	09/28/2012 18:41
2-Chlorotoluene	ND	U	0.916	4.89	ug/Kg	1	09/28/2012 18:41
2-Hexanone	ND	U	3.15	12.2	ug/Kg	1	09/28/2012 18:41
4-Chlorotoluene	ND	U	0.739	4.89	ug/Kg	1	09/28/2012 18:41
4-Isopropyltoluene	ND	U	0.631	4.89	ug/Kg	1	09/28/2012 18:41
4-Methyl-2-pentanone	ND	U	3.66	12.2	ug/Kg	1	09/28/2012 18:41
Acetone	ND	U	3.92	48.9	ug/Kg	1	09/28/2012 18:41
Benzene	ND	U	0.695	4.89	ug/Kg	1	09/28/2012 18:41
Bromobenzene	ND	U	0.681	4.89	ug/Kg	1	09/28/2012 18:41
Bromochloromethane	ND	U	0.919	4.89	ug/Kg	1	09/28/2012 18:41
Bromodichloromethane	ND	U	0.688	4.89	ug/Kg	1	09/28/2012 18:41
Bromoform	ND	U	0.708	4.89	ug/Kg	1	09/28/2012 18:41
Bromomethane	ND	U	1.42	4.89	ug/Kg	1	09/28/2012 18:41
n-Butylbenzene	ND	U	0.642	4.89	ug/Kg	1	09/28/2012 18:41
Carbon disulfide	ND	U	0.511	4.89	ug/Kg	1	09/28/2012 18:41
Carbon tetrachloride	ND	U	0.556	4.89	ug/Kg	1	09/28/2012 18:41
Chlorobenzene	ND	U	0.682	4.89	ug/Kg	1	09/28/2012 18:41
Chloroethane	ND	U	0.978	4.89	ug/Kg	1	09/28/2012 18:41
Chloroform	ND	U	0.623	4.89	ug/Kg	1	09/28/2012 18:41
Chloromethane	ND	U	1.40	4.89	ug/Kg	1	09/28/2012 18:41
Dibromochloromethane	ND	U	1.09	4.89	ug/Kg	1	09/28/2012 18:41
Dibromomethane	ND	U	0.862	4.89	ug/Kg	1	09/28/2012 18:41

Results of GAS-W (5ft)

Client Sample ID: **GAS-W (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112004-A
 Lab Project ID: 31203112

Collection Date: 09/26/2012 09:05
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 95.40

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	1.03	4.89	ug/Kg	1	09/28/2012 18:41
cis-1,3-Dichloropropene	ND	U	1.01	4.89	ug/Kg	1	09/28/2012 18:41
trans-1,3-Dichloropropene	ND	U	0.923	4.89	ug/Kg	1	09/28/2012 18:41
Diisopropyl Ether	ND	U	0.803	4.89	ug/Kg	1	09/28/2012 18:41
Ethyl Benzene	ND	U	0.689	4.89	ug/Kg	1	09/28/2012 18:41
Hexachlorobutadiene	ND	U	0.672	4.89	ug/Kg	1	09/28/2012 18:41
Isopropylbenzene (Cumene)	ND	U	0.608	4.89	ug/Kg	1	09/28/2012 18:41
Methyl iodide	ND	U	0.749	4.89	ug/Kg	1	09/28/2012 18:41
Methylene chloride	1.07	J	1.03	19.6	ug/Kg	1	09/28/2012 18:41
Naphthalene	ND	U	0.889	4.89	ug/Kg	1	09/28/2012 18:41
Styrene	ND	U	0.563	4.89	ug/Kg	1	09/28/2012 18:41
Tetrachloroethene	ND	U	0.734	4.89	ug/Kg	1	09/28/2012 18:41
Toluene	ND	U	0.673	4.89	ug/Kg	1	09/28/2012 18:41
Trichloroethene	ND	U	0.823	4.89	ug/Kg	1	09/28/2012 18:41
Trichlorofluoromethane	ND	U	0.987	4.89	ug/Kg	1	09/28/2012 18:41
Vinyl chloride	ND	U	0.929	4.89	ug/Kg	1	09/28/2012 18:41
Xylene (total)	ND	U	1.73	9.78	ug/Kg	1	09/28/2012 18:41
cis-1,2-Dichloroethene	ND	U	0.597	4.89	ug/Kg	1	09/28/2012 18:41
m,p-Xylene	ND	U	1.65	9.78	ug/Kg	1	09/28/2012 18:41
n-Propylbenzene	ND	U	0.716	4.89	ug/Kg	1	09/28/2012 18:41
o-Xylene	ND	U	0.749	4.89	ug/Kg	1	09/28/2012 18:41
sec-Butylbenzene	ND	U	0.587	4.89	ug/Kg	1	09/28/2012 18:41
tert-Butyl methyl ether (MTBE)	ND	U	0.777	4.89	ug/Kg	1	09/28/2012 18:41
tert-Butylbenzene	ND	U	0.658	4.89	ug/Kg	1	09/28/2012 18:41
trans-1,2-Dichloroethene	ND	U	0.714	4.89	ug/Kg	1	09/28/2012 18:41
trans-1,4-Dichloro-2-butene	ND	U	4.11	24.4	ug/Kg	1	09/28/2012 18:41

Surrogates

1,2-Dichloroethane-d4	114			55.0-173	%	1	09/28/2012 18:41
4-Bromofluorobenzene	104			23.0-141	%	1	09/28/2012 18:41
Toluene d8	108			57.0-134	%	1	09/28/2012 18:41

Batch Information

Analytical Batch: **VMS2590**
 Analytical Method: **SW-846 8260B**
 Instrument: **MSD9**
 Analyst: **DVO**

Prep Batch: **VXX4064**
 Prep Method: **SW-846 5035 SL**
 Prep Date/Time: **09/28/2012 11:09**
 Prep Initial Wt./Vol.: **5.36 g**
 Prep Extract Vol: **5 mL**

Results of GAS-W (5ft)

Client Sample ID: **GAS-W (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112004-E
 Lab Project ID: 31203112

Collection Date: 09/26/2012 09:05
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 95.40

Results by MADEP VPH

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
C5-C8 Aliphatics	ND	U	4.88	4.88	mg/kg	1	09/28/2012 15:30
C9-C10 Aromatics	ND	U	4.88	4.88	mg/kg	1	09/28/2012 15:30
C9-C12 Aliphatics	ND	U	4.88	4.88	mg/kg	1	09/28/2012 15:30
Surrogates							
FID - 4-Bromofluorobenzene	89.0			70.0-130	%	1	09/28/2012 15:30
PID - 4-Bromofluorobenzene	78.0			70.0-130	%	1	09/28/2012 15:30

Batch Information

Analytical Batch: **VGC2161**
 Analytical Method: **MADEP VPH**
 Instrument: **GC4**
 Analyst: **MDY**

Prep Batch: **VXX4063**
 Prep Method: **SW-846 5035 VPH prep**
 Prep Date/Time: **09/28/2012 11:09**
 Prep Initial Wt./Vol.: **5.37 g**
 Prep Extract Vol: **5 mL**

Results of GAS-W (5ft)

Client Sample ID: **GAS-W (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112004-G
 Lab Project ID: 31203112

Collection Date: 09/26/2012 09:05
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 95.40

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	U	36.3	303	ug/Kg	1	10/5/2012 17:31
1,2-Dichlorobenzene	ND	U	32.0	303	ug/Kg	1	10/5/2012 17:31
1,3-Dichlorobenzene	ND	U	33.5	303	ug/Kg	1	10/5/2012 17:31
1,4-Dichlorobenzene	ND	U	35.9	303	ug/Kg	1	10/5/2012 17:31
2,4,5-Trichlorophenol	ND	U	69.6	303	ug/Kg	1	10/5/2012 17:31
2,4,6-Trichlorophenol	ND	U	51.4	303	ug/Kg	1	10/5/2012 17:31
2,4-Dichlorophenol	ND	U	34.5	303	ug/Kg	1	10/5/2012 17:31
2,4-Dinitrophenol	ND	U	28.1	1520	ug/Kg	1	10/5/2012 17:31
2,4-Dinitrotoluene	ND	U	43.4	303	ug/Kg	1	10/5/2012 17:31
2,6-Dinitrotoluene	ND	U	42.1	303	ug/Kg	1	10/5/2012 17:31
2-Chloronaphthalene	ND	U	59.7	303	ug/Kg	1	10/5/2012 17:31
2-Chlorophenol	ND	U	38.8	303	ug/Kg	1	10/5/2012 17:31
2-Methylnaphthalene	ND	U	37.9	303	ug/Kg	1	10/5/2012 17:31
2-Methylphenol	ND	U	47.8	303	ug/Kg	1	10/5/2012 17:31
2-Nitroaniline	ND	U	57.0	303	ug/Kg	1	10/5/2012 17:31
2-Nitrophenol	ND	U	53.9	303	ug/Kg	1	10/5/2012 17:31
3 and/or 4-Methylphenol	ND	U	42.8	303	ug/Kg	1	10/5/2012 17:31
3,3'-Dichlorobenzidine	ND	U	41.7	607	ug/Kg	1	10/5/2012 17:31
3-Nitroaniline	ND	U	34.2	1520	ug/Kg	1	10/5/2012 17:31
4,6-Dinitro-2-methylphenol	ND	U	14.2	1520	ug/Kg	1	10/5/2012 17:31
4-Chloro-3-methylphenol	ND	U	40.0	303	ug/Kg	1	10/5/2012 17:31
4-Chloroaniline	ND	U	43.1	303	ug/Kg	1	10/5/2012 17:31
4-Chlorophenyl phenyl ether	ND	U	39.1	303	ug/Kg	1	10/5/2012 17:31
Acenaphthene	ND	U	39.1	303	ug/Kg	1	10/5/2012 17:31
Acenaphthylene	ND	U	46.0	303	ug/Kg	1	10/5/2012 17:31
Anthracene	ND	U	40.3	303	ug/Kg	1	10/5/2012 17:31
Benzo(a)anthracene	ND	U	39.8	303	ug/Kg	1	10/5/2012 17:31
Benzo(a)pyrene	ND	U	47.2	303	ug/Kg	1	10/5/2012 17:31
Benzo(b)fluoranthene	ND	U	46.0	303	ug/Kg	1	10/5/2012 17:31
Benzo(g,h,i)perylene	ND	U	39.6	303	ug/Kg	1	10/5/2012 17:31
Benzo(k)fluoranthene	ND	U	47.4	303	ug/Kg	1	10/5/2012 17:31
Benzoic acid	ND	U	88.0	1520	ug/Kg	1	10/5/2012 17:31
Bis(2-Chloroethoxy)methane	ND	U	47.8	303	ug/Kg	1	10/5/2012 17:31
Bis(2-Chloroethyl)ether	ND	U	43.9	303	ug/Kg	1	10/5/2012 17:31
Bis(2-Chloroisopropyl)ether	ND	U	27.0	303	ug/Kg	1	10/5/2012 17:31
Bis(2-Ethylhexyl)phthalate	ND	U	48.1	303	ug/Kg	1	10/5/2012 17:31
4-Bromophenyl phenyl ether	ND	U	45.2	303	ug/Kg	1	10/5/2012 17:31
Butyl benzyl phthalate	ND	U	39.3	303	ug/Kg	1	10/5/2012 17:31
Chrysene	ND	U	34.2	303	ug/Kg	1	10/5/2012 17:31
Di-n-butyl phthalate	ND	U	37.2	303	ug/Kg	1	10/5/2012 17:31
Di-n-octyl phthalate	ND	U	43.1	303	ug/Kg	1	10/5/2012 17:31
Dibenz(a,h)anthracene	ND	U	52.2	303	ug/Kg	1	10/5/2012 17:31
Dibenzofuran	ND	U	43.7	303	ug/Kg	1	10/5/2012 17:31

Results of GAS-W (5ft)

Client Sample ID: **GAS-W (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112004-G
 Lab Project ID: 31203112

Collection Date: 09/26/2012 09:05
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 95.40

Results by SW-846 8270D

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diethyl phthalate	ND	U	44.8	303	ug/Kg	1	10/5/2012 17:31
Dimethyl phthalate	ND	U	40.2	303	ug/Kg	1	10/5/2012 17:31
2,4-Dimethylphenol	ND	U	66.9	303	ug/Kg	1	10/5/2012 17:31
Diphenylamine	ND	U	38.9	303	ug/Kg	1	10/5/2012 17:31
Fluoranthene	ND	U	39.5	303	ug/Kg	1	10/5/2012 17:31
Fluorene	ND	U	41.9	303	ug/Kg	1	10/5/2012 17:31
Hexachlorobenzene	ND	U	59.4	1520	ug/Kg	1	10/5/2012 17:31
Hexachlorobutadiene	ND	U	34.9	303	ug/Kg	1	10/5/2012 17:31
Hexachlorocyclopentadiene	ND	U	27.2	607	ug/Kg	1	10/5/2012 17:31
Hexachloroethane	ND	U	30.7	303	ug/Kg	1	10/5/2012 17:31
Indeno(1,2,3-cd)pyrene	ND	U	44.6	303	ug/Kg	1	10/5/2012 17:31
Isophorone	ND	U	37.5	303	ug/Kg	1	10/5/2012 17:31
Naphthalene	ND	U	45.3	303	ug/Kg	1	10/5/2012 17:31
4-Nitroaniline	ND	U	50.4	1520	ug/Kg	1	10/5/2012 17:31
Nitrobenzene	ND	U	44.2	303	ug/Kg	1	10/5/2012 17:31
4-Nitrophenol	ND	U	29.8	1520	ug/Kg	1	10/5/2012 17:31
Pentachlorophenol	ND	U	96.4	1520	ug/Kg	1	10/5/2012 17:31
Phenanthrene	ND	U	32.2	303	ug/Kg	1	10/5/2012 17:31
Phenol	ND	U	39.1	303	ug/Kg	1	10/5/2012 17:31
Pyrene	ND	U	40.9	303	ug/Kg	1	10/5/2012 17:31
n-Nitrosodi-n-propylamine	ND	U	48.1	303	ug/Kg	1	10/5/2012 17:31
Surrogates							
2,4,6-Tribromophenol	82.0			41.0-129	%	1	10/5/2012 17:31
2-Fluorobiphenyl	88.0			48.0-123	%	1	10/5/2012 17:31
2-Fluorophenol	74.0			42.0-123	%	1	10/5/2012 17:31
Nitrobenzene-d5	79.0			46.0-117	%	1	10/5/2012 17:31
Phenol-d6	80.0			48.0-125	%	1	10/5/2012 17:31
Terphenyl-d14	96.0			44.0-140	%	1	10/5/2012 17:31

Batch Information

Analytical Batch: **XMS1693**
 Analytical Method: **SW-846 8270D**
 Instrument: **MSD10**
 Analyst: **CMP**

Prep Batch: **XXX3128**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **10/01/2012 10:14**
 Prep Initial Wt./Vol.: **34.61 g**
 Prep Extract Vol: **10 mL**

Results of GAS-W (5ft)

Client Sample ID: **GAS-W (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112004-G
 Lab Project ID: 31203112

Collection Date: 09/26/2012 09:05
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 95.40

Results by MADEP EPH

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
C11-C22 Aromatics	ND	U	11.9	11.9	mg/kg	1	10/2/2012 20:26
C19-C36 Aliphatics	ND	U	6.14	6.14	mg/kg	1	10/2/2012 19:57
C9-C18 Aliphatics	ND	U	5.31	5.31	mg/kg	1	10/2/2012 19:57
Surrogates							
2-Bromonaphthalene	84.9			40.0-140	%	1	10/2/2012 20:26
2-Fluorobiphenyl	79.0			40.0-140	%	1	10/2/2012 20:26
n-Tricosane	125			40.0-140	%	1	10/2/2012 19:57
o-Terphenyl	90.0			40.0-140	%	1	10/2/2012 20:26

Batch Information

Analytical Batch: **XGC2580**
 Analytical Method: **MADEP EPH**
 Instrument: **GC6**
 Analyst: **DTF**

Prep Batch: **XXX3123**
 Prep Method: **SW-846 3541/8015 EPH**
 Prep Date/Time: **09/28/2012 11:49**
 Prep Initial Wt./Vol.: **13.73 g**
 Prep Extract Vol: **10 mL**

Results of N-UST-E (6ft)

Client Sample ID: **N-UST-E (6ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112005-F
 Lab Project ID: 31203112

Collection Date: 09/26/2012 08:30
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 94.80

Results by SW-846 8015C GRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND	U	3.99	3.99	mg/kg	1	10/3/2012 17:17

Surrogates

4-Bromofluorobenzene	106			70.0-130	%	1	10/3/2012 17:17
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Batch Information

Analytical Batch: **VGC2164**
 Analytical Method: **SW-846 8015C GRO**
 Instrument: **GC7**
 Analyst: **MDY**

Prep Batch: **VXX4087**
 Prep Method: **SW-846 5035**
 Prep Date/Time: **09/28/2012 11:11**
 Prep Initial Wt./Vol.: **5.29 g**
 Prep Extract Vol: **5 mL**

Results of N-UST-E (6ft)

Client Sample ID: **N-UST-E (6ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112005-C
 Lab Project ID: 31203112

Collection Date: 09/26/2012 08:30
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 94.80

Results by SW-846 8015C DRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics (DRO)	ND	U	6.30	6.30	mg/kg	1	10/2/2012 21:22

Surrogates

o-Terphenyl	105			40.0-140	%	1	10/2/2012 21:22
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Batch Information

Analytical Batch: **XGC2577**
 Analytical Method: **SW-846 8015C DRO**
 Instrument: **GC6**
 Analyst: **DTF**

Prep Batch: **XXX3129**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **10/01/2012 10:18**
 Prep Initial Wt./Vol.: **33.5 g**
 Prep Extract Vol: **10 mL**

Results of N-UST-W (6ft)

Client Sample ID: **N-UST-W (6ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112006-F
 Lab Project ID: 31203112

Collection Date: 09/26/2012 08:35
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 94.40

Results by SW-846 8015C GRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND	U	3.77	3.77	mg/kg	1	10/3/2012 17:42
Surrogates							
4-Bromofluorobenzene	104			70.0-130	%	1	10/3/2012 17:42

Batch information

Analytical Batch: **VGC2164**
 Analytical Method: **SW-846 8015C GRO**
 Instrument: **GC7**
 Analyst: **MDY**

Prep Batch: **VXX4087**
 Prep Method: **SW-846 5035**
 Prep Date/Time: **09/28/2012 11:14**
 Prep Initial Wt./Vol.: **5.617 g**
 Prep Extract Vol: **5 mL**

Results of N-UST-W (6ft)

Client Sample ID: **N-UST-W (6ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112006-C
 Lab Project ID: 31203112

Collection Date: 09/26/2012 08:35
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 94.40

Results by SW-846 8015C DRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics (DRO)	ND	U	6.93	6.93	mg/kg	1	10/2/2012 21:50

Surrogates

o-Terphenyl	102			40.0-140	%	1	10/2/2012 21:50
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Batch Information

Analytical Batch: **XGC2577**
 Analytical Method: **SW-846 8015C DRO**
 Instrument: **GC6**
 Analyst: **DTF**

Prep Batch: **XXX3129**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **10/01/2012 10:18**
 Prep Initial Wt./Vol.: **30.58 g**
 Prep Extract Vol: **10 mL**

Results of S-UST (5.5ft)

Client Sample ID: **S-UST (5.5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112007-F
 Lab Project ID: 31203112

Collection Date: 09/26/2012 08:40
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 95.50

Results by SW-846 8015C GRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics (GRO)	20.7		3.93	3.93	mg/kg	1	10/3/2012 18:08

Surrogates

4-Bromofluorobenzene	106			70.0-130	%	1	10/3/2012 18:08
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Batch Information

Analytical Batch: **VGC2164**
 Analytical Method: **SW-846 8015C GRO**
 Instrument: **GC7**
 Analyst: **MDY**

Prep Batch: **VXX4087**
 Prep Method: **SW-846 5035**
 Prep Date/Time: **09/28/2012 11:16**
 Prep Initial Wt./Vol.: **5.33 g**
 Prep Extract Vol: **5 mL**

Results of S-UST (5.5ft)

Client Sample ID: **S-UST (5.5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112007-C
 Lab Project ID: 31203112

Collection Date: 09/26/2012 08:40
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 95.50

Results by SW-846 8015C DRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics (DRO)	54.7		6.29	6.29	mg/kg	1	10/2/2012 22:19
Surrogates							
o-Terphenyl	99.2			40.0-140	%	1	10/2/2012 22:19

Batch Information

Analytical Batch: **XGC2577**
 Analytical Method: **SW-846 8015C DRO**
 Instrument: **GC6**
 Analyst: **DTF**

Prep Batch: **XXX3129**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **10/01/2012 10:18**
 Prep Initial Wt./Vol.: **33.3 g**
 Prep Extract Vol: **10 mL**

Results of Drainage-N (5ft)

Client Sample ID: **Drainage-N (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112008-A
 Lab Project ID: 31203112

Collection Date: 09/26/2012 15:00
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 91.80

Results by SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	U	0.610	4.30	ug/Kg	1	10/1/2012 12:30
1,1,1-Trichloroethane	ND	U	0.649	4.30	ug/Kg	1	10/1/2012 12:30
1,1,2,2-Tetrachloroethane	ND	U	1.01	4.30	ug/Kg	1	10/1/2012 12:30
1,1,2-Trichloroethane	ND	U	0.895	4.30	ug/Kg	1	10/1/2012 12:30
1,1-Dichloroethane	ND	U	0.463	4.30	ug/Kg	1	10/1/2012 12:30
1,1-Dichloroethene	ND	U	0.998	4.30	ug/Kg	1	10/1/2012 12:30
1,1-Dichloropropene	ND	U	0.581	4.30	ug/Kg	1	10/1/2012 12:30
1,2,3-Trichlorobenzene	ND	U	0.716	4.30	ug/Kg	1	10/1/2012 12:30
1,2,3-Trichloropropane	ND	U	0.886	4.30	ug/Kg	1	10/1/2012 12:30
1,2,4-Trichlorobenzene	ND	U	0.627	4.30	ug/Kg	1	10/1/2012 12:30
1,2,4-Trimethylbenzene	ND	U	0.548	4.30	ug/Kg	1	10/1/2012 12:30
1,2-Dibromo-3-chloropropane	ND	U	6.37	25.8	ug/Kg	1	10/1/2012 12:30
1,2-Dibromoethane	ND	U	1.13	4.30	ug/Kg	1	10/1/2012 12:30
1,2-Dichlorobenzene	ND	U	0.612	4.30	ug/Kg	1	10/1/2012 12:30
1,2-Dichloroethane	ND	U	0.785	4.30	ug/Kg	1	10/1/2012 12:30
1,2-Dichloropropane	ND	U	0.989	4.30	ug/Kg	1	10/1/2012 12:30
1,3,5-Trimethylbenzene	ND	U	0.523	4.30	ug/Kg	1	10/1/2012 12:30
1,3-Dichlorobenzene	ND	U	0.618	4.30	ug/Kg	1	10/1/2012 12:30
1,3-Dichloropropane	ND	U	0.756	4.30	ug/Kg	1	10/1/2012 12:30
1,4-Dichlorobenzene	ND	U	0.581	4.30	ug/Kg	1	10/1/2012 12:30
2,2-Dichloropropane	ND	U	0.635	4.30	ug/Kg	1	10/1/2012 12:30
2-Butanone	ND	U	2.91	21.5	ug/Kg	1	10/1/2012 12:30
2-Chlorotoluene	ND	U	0.806	4.30	ug/Kg	1	10/1/2012 12:30
2-Hexanone	ND	U	2.77	10.8	ug/Kg	1	10/1/2012 12:30
4-Chlorotoluene	ND	U	0.650	4.30	ug/Kg	1	10/1/2012 12:30
4-Isopropyltoluene	ND	U	0.555	4.30	ug/Kg	1	10/1/2012 12:30
4-Methyl-2-pentanone	ND	U	3.22	10.8	ug/Kg	1	10/1/2012 12:30
Acetone	7.10	J	3.45	43.0	ug/Kg	1	10/1/2012 12:30
Benzene	ND	U	0.612	4.30	ug/Kg	1	10/1/2012 12:30
Bromobenzene	ND	U	0.599	4.30	ug/Kg	1	10/1/2012 12:30
Bromochloromethane	ND	U	0.808	4.30	ug/Kg	1	10/1/2012 12:30
Bromodichloromethane	ND	U	0.606	4.30	ug/Kg	1	10/1/2012 12:30
Bromoform	ND	U	0.623	4.30	ug/Kg	1	10/1/2012 12:30
Bromomethane	ND	U	1.25	4.30	ug/Kg	1	10/1/2012 12:30
n-Butylbenzene	ND	U	0.565	4.30	ug/Kg	1	10/1/2012 12:30
Carbon disulfide	ND	U	0.450	4.30	ug/Kg	1	10/1/2012 12:30
Carbon tetrachloride	ND	U	0.489	4.30	ug/Kg	1	10/1/2012 12:30
Chlorobenzene	ND	U	0.600	4.30	ug/Kg	1	10/1/2012 12:30
Chloroethane	ND	U	0.860	4.30	ug/Kg	1	10/1/2012 12:30
Chloroform	ND	U	0.548	4.30	ug/Kg	1	10/1/2012 12:30
Chloromethane	ND	U	1.23	4.30	ug/Kg	1	10/1/2012 12:30
Dibromochloromethane	ND	U	0.955	4.30	ug/Kg	1	10/1/2012 12:30
Dibromomethane	ND	U	0.759	4.30	ug/Kg	1	10/1/2012 12:30

Results of Drainage-N (5ft)

Client Sample ID: **Drainage-N (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112008-A
 Lab Project ID: 31203112

Collection Date: 09/26/2012 15:00
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 91.80

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	0.903	4.30	ug/Kg	1	10/1/2012 12:30
cis-1,3-Dichloropropene	ND	U	0.886	4.30	ug/Kg	1	10/1/2012 12:30
trans-1,3-Dichloropropene	ND	U	0.812	4.30	ug/Kg	1	10/1/2012 12:30
Diisopropyl Ether	ND	U	0.706	4.30	ug/Kg	1	10/1/2012 12:30
Ethyl Benzene	ND	U	0.606	4.30	ug/Kg	1	10/1/2012 12:30
Hexachlorobutadiene	ND	U	0.591	4.30	ug/Kg	1	10/1/2012 12:30
Isopropylbenzene (Cumene)	ND	U	0.535	4.30	ug/Kg	1	10/1/2012 12:30
Methyl iodide	ND	U	0.659	4.30	ug/Kg	1	10/1/2012 12:30
Methylene chloride	ND	U	0.903	17.2	ug/Kg	1	10/1/2012 12:30
Naphthalene	ND	U	0.782	4.30	ug/Kg	1	10/1/2012 12:30
Styrene	ND	U	0.495	4.30	ug/Kg	1	10/1/2012 12:30
Tetrachloroethene	ND	U	0.646	4.30	ug/Kg	1	10/1/2012 12:30
Toluene	ND	U	0.592	4.30	ug/Kg	1	10/1/2012 12:30
Trichloroethene	ND	U	0.724	4.30	ug/Kg	1	10/1/2012 12:30
Trichlorofluoromethane	ND	U	0.869	4.30	ug/Kg	1	10/1/2012 12:30
Vinyl chloride	ND	U	0.817	4.30	ug/Kg	1	10/1/2012 12:30
Xylene (total)	ND	U	1.52	8.60	ug/Kg	1	10/1/2012 12:30
cis-1,2-Dichloroethene	ND	U	0.526	4.30	ug/Kg	1	10/1/2012 12:30
m,p-Xylene	ND	U	1.45	8.60	ug/Kg	1	10/1/2012 12:30
n-Propylbenzene	ND	U	0.630	4.30	ug/Kg	1	10/1/2012 12:30
o-Xylene	ND	U	0.659	4.30	ug/Kg	1	10/1/2012 12:30
sec-Butylbenzene	ND	U	0.516	4.30	ug/Kg	1	10/1/2012 12:30
tert-Butyl methyl ether (MTBE)	ND	U	0.684	4.30	ug/Kg	1	10/1/2012 12:30
tert-Butylbenzene	ND	U	0.579	4.30	ug/Kg	1	10/1/2012 12:30
trans-1,2-Dichloroethene	ND	U	0.628	4.30	ug/Kg	1	10/1/2012 12:30
trans-1,4-Dichloro-2-butene	ND	U	3.61	21.5	ug/Kg	1	10/1/2012 12:30

Surrogates

1,2-Dichloroethane-d4	116			55.0-173	%	1	10/1/2012 12:30
4-Bromofluorobenzene	101			23.0-141	%	1	10/1/2012 12:30
Toluene d8	107			57.0-134	%	1	10/1/2012 12:30

Batch Information

Analytical Batch: VMS2595
 Analytical Method: SW-846 8260B
 Instrument: MSD9
 Analyst: DVO

Prep Batch: VXX4069
 Prep Method: SW-846 5035 SL
 Prep Date/Time: 09/28/2012 11:22
 Prep Initial Wt./Vol.: 6.33 g
 Prep Extract Vol: 5 mL

Results of Drainage-N (5ft)

Client Sample ID: **Drainage-N (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112008-E
 Lab Project ID: 31203112

Collection Date: 09/26/2012 15:00
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 91.80

Results by MADEP VPH

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
C5-C8 Aliphatics	ND	U	4.87	4.87	mg/kg	1	09/28/2012 15:57
C9-C10 Aromatics	ND	U	4.87	4.87	mg/kg	1	09/28/2012 15:57
C9-C12 Aliphatics	ND	U	4.87	4.87	mg/kg	1	09/28/2012 15:57

Surrogates

FID - 4-Bromofluorobenzene	90.0			70.0-130	%	1	09/28/2012 15:57
PID - 4-Bromofluorobenzene	79.0			70.0-130	%	1	09/28/2012 15:57

Batch Information

Analytical Batch: **VGC2161**
 Analytical Method: **MADEP VPH**
 Instrument: **GC4**
 Analyst: **MDY**

Prep Batch: **VXX4063**
 Prep Method: **SW-846 5035 VPH prep**
 Prep Date/Time: **09/28/2012 11:22**
 Prep Initial Wt./Vol.: **5.59 g**
 Prep Extract Vol: **5 mL**

Results of Drainage-N (5ft)

Client Sample ID: **Drainage-N (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112008-G
 Lab Project ID: 31203112

Collection Date: 09/26/2012 15:00
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 91.80

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	U	39.8	333	ug/Kg	1	10/5/2012 17:54
1,2-Dichlorobenzene	ND	U	35.1	333	ug/Kg	1	10/5/2012 17:54
1,3-Dichlorobenzene	ND	U	36.8	333	ug/Kg	1	10/5/2012 17:54
1,4-Dichlorobenzene	ND	U	39.4	333	ug/Kg	1	10/5/2012 17:54
2,4,5-Trichlorophenol	ND	U	76.3	333	ug/Kg	1	10/5/2012 17:54
2,4,6-Trichlorophenol	ND	U	56.3	333	ug/Kg	1	10/5/2012 17:54
2,4-Dichlorophenol	ND	U	37.8	333	ug/Kg	1	10/5/2012 17:54
2,4-Dinitrophenol	ND	U	30.8	1660	ug/Kg	1	10/5/2012 17:54
2,4-Dinitrotoluene	ND	U	47.6	333	ug/Kg	1	10/5/2012 17:54
2,6-Dinitrotoluene	ND	U	46.1	333	ug/Kg	1	10/5/2012 17:54
2-Chloronaphthalene	ND	U	65.5	333	ug/Kg	1	10/5/2012 17:54
2-Chlorophenol	ND	U	42.5	333	ug/Kg	1	10/5/2012 17:54
2-Methylnaphthalene	ND	U	41.5	333	ug/Kg	1	10/5/2012 17:54
2-Methylphenol	ND	U	52.4	333	ug/Kg	1	10/5/2012 17:54
2-Nitroaniline	ND	U	62.5	333	ug/Kg	1	10/5/2012 17:54
2-Nitrophenol	ND	U	59.1	333	ug/Kg	1	10/5/2012 17:54
3 and/or 4-Methylphenol	ND	U	47.0	333	ug/Kg	1	10/5/2012 17:54
3,3'-Dichlorobenzidine	ND	U	45.7	665	ug/Kg	1	10/5/2012 17:54
3-Nitroaniline	ND	U	37.5	1660	ug/Kg	1	10/5/2012 17:54
4,6-Dinitro-2-methylphenol	ND	U	15.6	1660	ug/Kg	1	10/5/2012 17:54
4-Chloro-3-methylphenol	ND	U	43.9	333	ug/Kg	1	10/5/2012 17:54
4-Chloroaniline	ND	U	47.3	333	ug/Kg	1	10/5/2012 17:54
4-Chlorophenyl phenyl ether	ND	U	42.9	333	ug/Kg	1	10/5/2012 17:54
Acenaphthene	ND	U	42.9	333	ug/Kg	1	10/5/2012 17:54
Acenaphthylene	ND	U	50.5	333	ug/Kg	1	10/5/2012 17:54
Anthracene	ND	U	44.2	333	ug/Kg	1	10/5/2012 17:54
Benzo(a)anthracene	ND	U	43.7	333	ug/Kg	1	10/5/2012 17:54
Benzo(a)pyrene	ND	U	51.8	333	ug/Kg	1	10/5/2012 17:54
Benzo(b)fluoranthene	ND	U	50.5	333	ug/Kg	1	10/5/2012 17:54
Benzo(g,h,i)perylene	ND	U	43.5	333	ug/Kg	1	10/5/2012 17:54
Benzo(k)fluoranthene	ND	U	52.0	333	ug/Kg	1	10/5/2012 17:54
Benzoic acid	ND	U	96.5	1660	ug/Kg	1	10/5/2012 17:54
Bis(2-Chloroethoxy)methane	ND	U	52.4	333	ug/Kg	1	10/5/2012 17:54
Bis(2-Chloroethyl)ether	ND	U	48.1	333	ug/Kg	1	10/5/2012 17:54
Bis(2-Chloroisopropyl)ether	ND	U	29.6	333	ug/Kg	1	10/5/2012 17:54
Bis(2-Ethylhexyl)phthalate	ND	U	52.7	333	ug/Kg	1	10/5/2012 17:54
4-Bromophenyl phenyl ether	ND	U	49.5	333	ug/Kg	1	10/5/2012 17:54
Butyl benzyl phthalate	ND	U	43.1	333	ug/Kg	1	10/5/2012 17:54
Chrysene	ND	U	37.5	333	ug/Kg	1	10/5/2012 17:54
Di-n-butyl phthalate	ND	U	40.8	333	ug/Kg	1	10/5/2012 17:54
Di-n-octyl phthalate	ND	U	47.3	333	ug/Kg	1	10/5/2012 17:54
Dibenz(a,h)anthracene	ND	U	57.3	333	ug/Kg	1	10/5/2012 17:54
Dibenzofuran	ND	U	47.9	333	ug/Kg	1	10/5/2012 17:54

Results of Drainage-N (5ft)

Client Sample ID: **Drainage-N (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112008-G
 Lab Project ID: 31203112

Collection Date: 09/26/2012 15:00
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 91.80

Results by SW-846 8270D

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diethyl phthalate	ND	U	49.1	333	ug/Kg	1	10/5/2012 17:54
Dimethyl phthalate	ND	U	44.1	333	ug/Kg	1	10/5/2012 17:54
2,4-Dimethylphenol	ND	U	73.3	333	ug/Kg	1	10/5/2012 17:54
Diphenylamine	ND	U	42.6	333	ug/Kg	1	10/5/2012 17:54
Fluoranthene	ND	U	43.4	333	ug/Kg	1	10/5/2012 17:54
Fluorene	ND	U	45.9	333	ug/Kg	1	10/5/2012 17:54
Hexachlorobenzene	ND	U	65.1	1660	ug/Kg	1	10/5/2012 17:54
Hexachlorobutadiene	ND	U	38.3	333	ug/Kg	1	10/5/2012 17:54
Hexachlorocyclopentadiene	ND	U	29.9	665	ug/Kg	1	10/5/2012 17:54
Hexachloroethane	ND	U	33.7	333	ug/Kg	1	10/5/2012 17:54
Indeno(1,2,3-cd)pyrene	ND	U	48.9	333	ug/Kg	1	10/5/2012 17:54
Isophorone	ND	U	41.1	333	ug/Kg	1	10/5/2012 17:54
Naphthalene	ND	U	49.6	333	ug/Kg	1	10/5/2012 17:54
4-Nitroaniline	ND	U	55.3	1660	ug/Kg	1	10/5/2012 17:54
Nitrobenzene	ND	U	48.5	333	ug/Kg	1	10/5/2012 17:54
4-Nitrophenol	ND	U	32.7	1660	ug/Kg	1	10/5/2012 17:54
Pentachlorophenol	ND	U	106	1660	ug/Kg	1	10/5/2012 17:54
Phenanthrene	ND	U	35.3	333	ug/Kg	1	10/5/2012 17:54
Phenol	ND	U	42.9	333	ug/Kg	1	10/5/2012 17:54
Pyrene	ND	U	44.8	333	ug/Kg	1	10/5/2012 17:54
n-Nitrosodi-n-propylamine	ND	U	52.7	333	ug/Kg	1	10/5/2012 17:54
Surrogates							
2,4,6-Tribromophenol	80.0			41.0-129	%	1	10/5/2012 17:54
2-Fluorobiphenyl	93.0			48.0-123	%	1	10/5/2012 17:54
2-Fluorophenol	73.0			42.0-123	%	1	10/5/2012 17:54
Nitrobenzene-d5	86.0			46.0-117	%	1	10/5/2012 17:54
Phenol-d6	84.0			48.0-125	%	1	10/5/2012 17:54
Terphenyl-d14	92.0			44.0-140	%	1	10/5/2012 17:54

Batch Information

Analytical Batch: XMS1693
 Analytical Method: SW-846 8270D
 Instrument: MSD10
 Analyst: CMP

Prep Batch: XXX3128
 Prep Method: SW-846 3541
 Prep Date/Time: 10/01/2012 10:14
 Prep Initial Wt./Vol.: 32.79 g
 Prep Extract Vol: 10 mL

Results of Drainage-N (5ft)

Client Sample ID: **Drainage-N (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: **31203112008-G**
 Lab Project ID: **31203112**

Collection Date: **09/26/2012 15:00**
 Received Date: **09/27/2012 15:25**
 Matrix: **Soil-Solid as dry weight**
 Solids (%): **91.80**

Results by MADEP EPH

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
C11-C22 Aromatics	ND	U	13.2	13.2	mg/kg	1	10/2/2012 21:22
C19-C36 Aliphatics	ND	U	6.81	6.81	mg/kg	1	10/2/2012 20:54
C9-C18 Aliphatics	ND	U	5.90	5.90	mg/kg	1	10/2/2012 20:54
Surrogates							
2-Bromonaphthalene	71.3			40.0-140	%	1	10/2/2012 21:22
2-Fluorobiphenyl	67.0			40.0-140	%	1	10/2/2012 21:22
n-Tricosane	124			40.0-140	%	1	10/2/2012 20:54
o-Terphenyl	69.0			40.0-140	%	1	10/2/2012 21:22

Batch Information

Analytical Batch: **XGC2580**
 Analytical Method: **MADEP EPH**
 Instrument: **GC6**
 Analyst: **DTF**

Prep Batch: **XXX3123**
 Prep Method: **SW-846 3541/8015 EPH**
 Prep Date/Time: **09/28/2012 11:49**
 Prep Initial Wt./Vol.: **12.85 g**
 Prep Extract Vol: **10 mL**

Results of Drainage-S (5ft)

Client Sample ID: **Drainage-S (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112009-A
 Lab Project ID: 31203112

Collection Date: 09/26/2012 15:05
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 92.10

Results by SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	U	0.631	4.45	ug/Kg	1	10/1/2012 12:56
1,1,1-Trichloroethane	ND	U	0.671	4.45	ug/Kg	1	10/1/2012 12:56
1,1,2,2-Tetrachloroethane	ND	U	1.04	4.45	ug/Kg	1	10/1/2012 12:56
1,1,2-Trichloroethane	ND	U	0.926	4.45	ug/Kg	1	10/1/2012 12:56
1,1-Dichloroethane	ND	U	0.479	4.45	ug/Kg	1	10/1/2012 12:56
1,1-Dichloroethene	ND	U	1.03	4.45	ug/Kg	1	10/1/2012 12:56
1,1-Dichloropropene	ND	U	0.602	4.45	ug/Kg	1	10/1/2012 12:56
1,2,3-Trichlorobenzene	ND	U	0.741	4.45	ug/Kg	1	10/1/2012 12:56
1,2,3-Trichloropropane	ND	U	0.917	4.45	ug/Kg	1	10/1/2012 12:56
1,2,4-Trichlorobenzene	ND	U	0.649	4.45	ug/Kg	1	10/1/2012 12:56
1,2,4-Trimethylbenzene	ND	U	0.567	4.45	ug/Kg	1	10/1/2012 12:56
1,2-Dibromo-3-chloropropane	ND	U	6.60	26.7	ug/Kg	1	10/1/2012 12:56
1,2-Dibromoethane	ND	U	1.17	4.45	ug/Kg	1	10/1/2012 12:56
1,2-Dichlorobenzene	ND	U	0.633	4.45	ug/Kg	1	10/1/2012 12:56
1,2-Dichloroethane	ND	U	0.813	4.45	ug/Kg	1	10/1/2012 12:56
1,2-Dichloropropane	ND	U	1.02	4.45	ug/Kg	1	10/1/2012 12:56
1,3,5-Trimethylbenzene	ND	U	0.541	4.45	ug/Kg	1	10/1/2012 12:56
1,3-Dichlorobenzene	ND	U	0.640	4.45	ug/Kg	1	10/1/2012 12:56
1,3-Dichloropropane	ND	U	0.782	4.45	ug/Kg	1	10/1/2012 12:56
1,4-Dichlorobenzene	ND	U	0.601	4.45	ug/Kg	1	10/1/2012 12:56
2,2-Dichloropropane	ND	U	0.657	4.45	ug/Kg	1	10/1/2012 12:56
2-Butanone	ND	U	3.01	22.3	ug/Kg	1	10/1/2012 12:56
2-Chlorotoluene	ND	U	0.834	4.45	ug/Kg	1	10/1/2012 12:56
2-Hexanone	ND	U	2.87	11.1	ug/Kg	1	10/1/2012 12:56
4-Chlorotoluene	ND	U	0.673	4.45	ug/Kg	1	10/1/2012 12:56
4-Isopropyltoluene	ND	U	0.574	4.45	ug/Kg	1	10/1/2012 12:56
4-Methyl-2-pentanone	ND	U	3.33	11.1	ug/Kg	1	10/1/2012 12:56
Acetone	5.24	J	3.57	44.5	ug/Kg	1	10/1/2012 12:56
Benzene	ND	U	0.633	4.45	ug/Kg	1	10/1/2012 12:56
Bromobenzene	ND	U	0.620	4.45	ug/Kg	1	10/1/2012 12:56
Bromochloromethane	ND	U	0.837	4.45	ug/Kg	1	10/1/2012 12:56
Bromodichloromethane	ND	U	0.627	4.45	ug/Kg	1	10/1/2012 12:56
Bromoform	ND	U	0.645	4.45	ug/Kg	1	10/1/2012 12:56
Bromomethane	ND	U	1.29	4.45	ug/Kg	1	10/1/2012 12:56
n-Butylbenzene	ND	U	0.585	4.45	ug/Kg	1	10/1/2012 12:56
Carbon disulfide	ND	U	0.466	4.45	ug/Kg	1	10/1/2012 12:56
Carbon tetrachloride	ND	U	0.507	4.45	ug/Kg	1	10/1/2012 12:56
Chlorobenzene	ND	U	0.621	4.45	ug/Kg	1	10/1/2012 12:56
Chloroethane	ND	U	0.890	4.45	ug/Kg	1	10/1/2012 12:56
Chloroform	ND	U	0.567	4.45	ug/Kg	1	10/1/2012 12:56
Chloromethane	ND	U	1.27	4.45	ug/Kg	1	10/1/2012 12:56
Dibromochloromethane	ND	U	0.988	4.45	ug/Kg	1	10/1/2012 12:56
Dibromomethane	ND	U	0.785	4.45	ug/Kg	1	10/1/2012 12:56

Results of Drainage-S (5ft)

Client Sample ID: **Drainage-S (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112009-A
 Lab Project ID: 31203112

Collection Date: 09/26/2012 15:05
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 92.10

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	0.935	4.45	ug/Kg	1	10/1/2012 12:56
cis-1,3-Dichloropropene	ND	U	0.917	4.45	ug/Kg	1	10/1/2012 12:56
trans-1,3-Dichloropropene	ND	U	0.840	4.45	ug/Kg	1	10/1/2012 12:56
Diisopropyl Ether	ND	U	0.731	4.45	ug/Kg	1	10/1/2012 12:56
Ethyl Benzene	ND	U	0.628	4.45	ug/Kg	1	10/1/2012 12:56
Hexachlorobutadiene	ND	U	0.612	4.45	ug/Kg	1	10/1/2012 12:56
Isopropylbenzene (Cumene)	ND	U	0.554	4.45	ug/Kg	1	10/1/2012 12:56
Methyl iodide	ND	U	0.682	4.45	ug/Kg	1	10/1/2012 12:56
Methylene chloride	ND	U	0.935	17.8	ug/Kg	1	10/1/2012 12:56
Naphthalene	ND	U	0.809	4.45	ug/Kg	1	10/1/2012 12:56
Styrene	ND	U	0.513	4.45	ug/Kg	1	10/1/2012 12:56
Tetrachloroethene	ND	U	0.669	4.45	ug/Kg	1	10/1/2012 12:56
Toluene	ND	U	0.612	4.45	ug/Kg	1	10/1/2012 12:56
Trichloroethene	ND	U	0.750	4.45	ug/Kg	1	10/1/2012 12:56
Trichlorofluoromethane	ND	U	0.899	4.45	ug/Kg	1	10/1/2012 12:56
Vinyl chloride	ND	U	0.846	4.45	ug/Kg	1	10/1/2012 12:56
Xylene (total)	ND	U	1.58	8.90	ug/Kg	1	10/1/2012 12:56
cis-1,2-Dichloroethene	ND	U	0.544	4.45	ug/Kg	1	10/1/2012 12:56
m,p-Xylene	ND	U	1.50	8.90	ug/Kg	1	10/1/2012 12:56
n-Propylbenzene	ND	U	0.652	4.45	ug/Kg	1	10/1/2012 12:56
o-Xylene	ND	U	0.682	4.45	ug/Kg	1	10/1/2012 12:56
sec-Butylbenzene	ND	U	0.534	4.45	ug/Kg	1	10/1/2012 12:56
tert-Butyl methyl ether (MTBE)	ND	U	0.708	4.45	ug/Kg	1	10/1/2012 12:56
tert-Butylbenzene	ND	U	0.599	4.45	ug/Kg	1	10/1/2012 12:56
trans-1,2-Dichloroethene	ND	U	0.650	4.45	ug/Kg	1	10/1/2012 12:56
trans-1,4-Dichloro-2-butene	ND	U	3.74	22.3	ug/Kg	1	10/1/2012 12:56

Surrogates

1,2-Dichloroethane-d4	117			55.0-173	%	1	10/1/2012 12:56
4-Bromofluorobenzene	103			23.0-141	%	1	10/1/2012 12:56
Toluene d8	108			57.0-134	%	1	10/1/2012 12:56

Batch Information

Analytical Batch: **VMS2595**
 Analytical Method: **SW-846 8260B**
 Instrument: **MSD9**
 Analyst: **DVO**

Prep Batch: **VXX4069**
 Prep Method: **SW-846 5035 SL**
 Prep Date/Time: **09/28/2012 11:24**
 Prep Initial Wt./Vol.: **6.1 g**
 Prep Extract Vol: **5 mL**

Results of Drainage-S (5ft)

Client Sample ID: **Drainage-S (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112009-E
 Lab Project ID: 31203112

Collection Date: 09/26/2012 15:05
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 92.10

Results by MADEP VPH

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
C5-C8 Aliphatics	ND	U	4.58	4.58	mg/kg	1	09/28/2012 16:23
C9-C10 Aromatics	ND	U	4.58	4.58	mg/kg	1	09/28/2012 16:23
C9-C12 Aliphatics	ND	U	4.58	4.58	mg/kg	1	09/28/2012 16:23

Surrogates

FID - 4-Bromofluorobenzene	92.0			70.0-130	%	1	09/28/2012 16:23
PID - 4-Bromofluorobenzene	79.0			70.0-130	%	1	09/28/2012 16:23

Batch Information

Analytical Batch: **VGC2161**
 Analytical Method: **MADEP VPH**
 Instrument: **GC4**
 Analyst: **MDY**

Prep Batch: **VXX4063**
 Prep Method: **SW-846 5035 VPH prep**
 Prep Date/Time: **09/28/2012 11:24**
 Prep Initial Wt./Vol.: **5.93 g**
 Prep Extract Vol: **5 mL**

Results of Drainage-S (5ft)

Client Sample ID: **Drainage-S (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112009-G
 Lab Project ID: 31203112

Collection Date: 09/26/2012 15:05
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 92.10

Results by SW-846 8270D

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	ND	U	41.6	347	ug/Kg	1	10/5/2012 18:17
1,2-Dichlorobenzene	ND	U	36.6	347	ug/Kg	1	10/5/2012 18:17
1,3-Dichlorobenzene	ND	U	38.4	347	ug/Kg	1	10/5/2012 18:17
1,4-Dichlorobenzene	ND	U	41.2	347	ug/Kg	1	10/5/2012 18:17
2,4,5-Trichlorophenol	ND	U	79.7	347	ug/Kg	1	10/5/2012 18:17
2,4,6-Trichlorophenol	ND	U	58.8	347	ug/Kg	1	10/5/2012 18:17
2,4-Dichlorophenol	ND	U	39.5	347	ug/Kg	1	10/5/2012 18:17
2,4-Dinitrophenol	ND	U	32.2	1740	ug/Kg	1	10/5/2012 18:17
2,4-Dinitrotoluene	ND	U	49.7	347	ug/Kg	1	10/5/2012 18:17
2,6-Dinitrotoluene	ND	U	48.2	347	ug/Kg	1	10/5/2012 18:17
2-Chloronaphthalene	ND	U	68.4	347	ug/Kg	1	10/5/2012 18:17
2-Chlorophenol	ND	U	44.4	347	ug/Kg	1	10/5/2012 18:17
2-Methylnaphthalene	ND	U	43.4	347	ug/Kg	1	10/5/2012 18:17
2-Methylphenol	ND	U	54.7	347	ug/Kg	1	10/5/2012 18:17
2-Nitroaniline	ND	U	65.3	347	ug/Kg	1	10/5/2012 18:17
2-Nitrophenol	ND	U	61.7	347	ug/Kg	1	10/5/2012 18:17
3 and/or 4-Methylphenol	ND	U	49.1	347	ug/Kg	1	10/5/2012 18:17
3,3'-Dichlorobenzidine	ND	U	47.7	695	ug/Kg	1	10/5/2012 18:17
3-Nitroaniline	ND	U	39.2	1740	ug/Kg	1	10/5/2012 18:17
4,6-Dinitro-2-methylphenol	ND	U	16.3	1740	ug/Kg	1	10/5/2012 18:17
4-Chloro-3-methylphenol	ND	U	45.8	347	ug/Kg	1	10/5/2012 18:17
4-Chloroaniline	ND	U	49.4	347	ug/Kg	1	10/5/2012 18:17
4-Chlorophenyl phenyl ether	ND	U	44.8	347	ug/Kg	1	10/5/2012 18:17
Acenaphthene	ND	U	44.8	347	ug/Kg	1	10/5/2012 18:17
Acenaphthylene	ND	U	52.7	347	ug/Kg	1	10/5/2012 18:17
Anthracene	ND	U	46.2	347	ug/Kg	1	10/5/2012 18:17
Benzo(a)anthracene	ND	U	45.6	347	ug/Kg	1	10/5/2012 18:17
Benzo(a)pyrene	ND	U	54.1	347	ug/Kg	1	10/5/2012 18:17
Benzo(b)fluoranthene	ND	U	52.7	347	ug/Kg	1	10/5/2012 18:17
Benzo(g,h,i)perylene	ND	U	45.4	347	ug/Kg	1	10/5/2012 18:17
Benzo(k)fluoranthene	ND	U	54.3	347	ug/Kg	1	10/5/2012 18:17
Benzoic acid	ND	U	101	1740	ug/Kg	1	10/5/2012 18:17
Bis(2-Chloroethoxy)methane	ND	U	54.7	347	ug/Kg	1	10/5/2012 18:17
Bis(2-Chloroethyl)ether	ND	U	50.3	347	ug/Kg	1	10/5/2012 18:17
Bis(2-Chloroisopropyl)ether	ND	U	31.0	347	ug/Kg	1	10/5/2012 18:17
Bis(2-Ethylhexyl)phthalate	ND	U	55.1	347	ug/Kg	1	10/5/2012 18:17
4-Bromophenyl phenyl ether	ND	U	51.7	347	ug/Kg	1	10/5/2012 18:17
Butyl benzyl phthalate	ND	U	45.1	347	ug/Kg	1	10/5/2012 18:17
Chrysene	ND	U	39.2	347	ug/Kg	1	10/5/2012 18:17
Di-n-butyl phthalate	ND	U	42.6	347	ug/Kg	1	10/5/2012 18:17
Di-n-octyl phthalate	ND	U	49.4	347	ug/Kg	1	10/5/2012 18:17
Dibenz(a,h)anthracene	ND	U	59.8	347	ug/Kg	1	10/5/2012 18:17
Dibenzofuran	ND	U	50.1	347	ug/Kg	1	10/5/2012 18:17

Results of Drainage-S (5ft)

Client Sample ID: **Drainage-S (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112009-G
 Lab Project ID: 31203112

Collection Date: 09/26/2012 15:05
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 92.10

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diethyl phthalate	ND	U	51.3	347	ug/Kg	1	10/5/2012 18:17
Dimethyl phthalate	ND	U	46.1	347	ug/Kg	1	10/5/2012 18:17
2,4-Dimethylphenol	ND	U	76.6	347	ug/Kg	1	10/5/2012 18:17
Diphenylamine	ND	U	44.5	347	ug/Kg	1	10/5/2012 18:17
Fluoranthene	ND	U	45.3	347	ug/Kg	1	10/5/2012 18:17
Fluorene	ND	U	48.0	347	ug/Kg	1	10/5/2012 18:17
Hexachlorobenzene	ND	U	68.0	1740	ug/Kg	1	10/5/2012 18:17
Hexachlorobutadiene	ND	U	40.0	347	ug/Kg	1	10/5/2012 18:17
Hexachlorocyclopentadiene	ND	U	31.2	695	ug/Kg	1	10/5/2012 18:17
Hexachloroethane	ND	U	35.2	347	ug/Kg	1	10/5/2012 18:17
Indeno(1,2,3-cd)pyrene	ND	U	51.1	347	ug/Kg	1	10/5/2012 18:17
Isophorone	ND	U	43.0	347	ug/Kg	1	10/5/2012 18:17
Naphthalene	ND	U	51.8	347	ug/Kg	1	10/5/2012 18:17
4-Nitroaniline	ND	U	57.7	1740	ug/Kg	1	10/5/2012 18:17
Nitrobenzene	ND	U	50.6	347	ug/Kg	1	10/5/2012 18:17
4-Nitrophenol	ND	U	34.2	1740	ug/Kg	1	10/5/2012 18:17
Pentachlorophenol	ND	U	110	1740	ug/Kg	1	10/5/2012 18:17
Phenanthrene	ND	U	36.9	347	ug/Kg	1	10/5/2012 18:17
Phenol	ND	U	44.8	347	ug/Kg	1	10/5/2012 18:17
Pyrene	ND	U	46.8	347	ug/Kg	1	10/5/2012 18:17
n-Nitrosodi-n-propylamine	ND	U	55.1	347	ug/Kg	1	10/5/2012 18:17
Surrogates							
2,4,6-Tribromophenol	81.0			41.0-129	%	1	10/5/2012 18:17
2-Fluorobiphenyl	89.0			48.0-123	%	1	10/5/2012 18:17
2-Fluorophenol	82.0			42.0-123	%	1	10/5/2012 18:17
Nitrobenzene-d5	85.0			46.0-117	%	1	10/5/2012 18:17
Phenol-d6	87.0			48.0-125	%	1	10/5/2012 18:17
Terphenyl-d14	91.0			44.0-140	%	1	10/5/2012 18:17

Batch Information

Analytical Batch: XMS1693
 Analytical Method: SW-846 8270D
 Instrument: MSD10
 Analyst: CMP

Prep Batch: XXX3128
 Prep Method: SW-846 3541
 Prep Date/Time: 10/01/2012 10:14
 Prep Initial Wt./Vol.: 31.31 g
 Prep Extract Vol: 10 mL

Results of Drainage-S (5ft)

Client Sample ID: **Drainage-S (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112009-G
 Lab Project ID: 31203112

Collection Date: 09/26/2012 15:05
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 92.10

Results by MADEP EPH

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
C11-C22 Aromatics	ND	U	13.0	13.0	mg/kg	1	10/2/2012 22:19
C19-C36 Aliphatics	ND	U	6.71	6.71	mg/kg	1	10/2/2012 21:50
C9-C18 Aliphatics	ND	U	5.81	5.81	mg/kg	1	10/2/2012 21:50
Surrogates							
2-Bromonaphthalene	89.3			40.0-140	%	1	10/2/2012 22:19
2-Fluorobiphenyl	83.0			40.0-140	%	1	10/2/2012 22:19
n-Tricosane	125			40.0-140	%	1	10/2/2012 21:50
o-Terphenyl	94.0			40.0-140	%	1	10/2/2012 22:19

Batch Information

Analytical Batch: XGC2580
 Analytical Method: MADEP EPH
 Instrument: GC6
 Analyst: DTF

Prep Batch: XXX3123
 Prep Method: SW-846 3541/8015 EPH
 Prep Date/Time: 09/28/2012 11:49
 Prep Initial Wt./Vol.: 13.02 g
 Prep Extract Vol: 10 mL

Results of Drainage-W (5ft)

Client Sample ID: **Drainage-W (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112010-A
 Lab Project ID: 31203112

Collection Date: 09/26/2012 15:10
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 94.00

Results by SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	U	0.837	4.49	ug/Kg	1	10/1/2012 13:23
1,1,1-Trichloroethane	ND	U	0.678	4.49	ug/Kg	1	10/1/2012 13:23
1,1,2,2-Tetrachloroethane	ND	U	1.05	4.49	ug/Kg	1	10/1/2012 13:23
1,1,2-Trichloroethane	ND	U	0.935	4.49	ug/Kg	1	10/1/2012 13:23
1,1-Dichloroethane	ND	U	0.484	4.49	ug/Kg	1	10/1/2012 13:23
1,1-Dichloroethene	ND	U	1.04	4.49	ug/Kg	1	10/1/2012 13:23
1,1-Dichloropropene	ND	U	0.608	4.49	ug/Kg	1	10/1/2012 13:23
1,2,3-Trichlorobenzene	ND	U	0.748	4.49	ug/Kg	1	10/1/2012 13:23
1,2,3-Trichloropropane	ND	U	0.926	4.49	ug/Kg	1	10/1/2012 13:23
1,2,4-Trichlorobenzene	ND	U	0.655	4.49	ug/Kg	1	10/1/2012 13:23
1,2,4-Trimethylbenzene	ND	U	0.573	4.49	ug/Kg	1	10/1/2012 13:23
1,2-Dibromo-3-chloropropane	ND	U	6.66	27.0	ug/Kg	1	10/1/2012 13:23
1,2-Dibromoethane	ND	U	1.18	4.49	ug/Kg	1	10/1/2012 13:23
1,2-Dichlorobenzene	ND	U	0.639	4.49	ug/Kg	1	10/1/2012 13:23
1,2-Dichloroethane	ND	U	0.821	4.49	ug/Kg	1	10/1/2012 13:23
1,2-Dichloropropane	ND	U	1.03	4.49	ug/Kg	1	10/1/2012 13:23
1,3,5-Trimethylbenzene	ND	U	0.547	4.49	ug/Kg	1	10/1/2012 13:23
1,3-Dichlorobenzene	ND	U	0.646	4.49	ug/Kg	1	10/1/2012 13:23
1,3-Dichloropropane	ND	U	0.790	4.49	ug/Kg	1	10/1/2012 13:23
1,4-Dichlorobenzene	ND	U	0.607	4.49	ug/Kg	1	10/1/2012 13:23
2,2-Dichloropropane	ND	U	0.663	4.49	ug/Kg	1	10/1/2012 13:23
2-Butanone	ND	U	3.04	22.5	ug/Kg	1	10/1/2012 13:23
2-Chlorotoluene	ND	U	0.842	4.49	ug/Kg	1	10/1/2012 13:23
2-Hexanone	ND	U	2.89	11.2	ug/Kg	1	10/1/2012 13:23
4-Chlorotoluene	ND	U	0.680	4.49	ug/Kg	1	10/1/2012 13:23
4-Isopropyltoluene	ND	U	0.580	4.49	ug/Kg	1	10/1/2012 13:23
4-Methyl-2-pentanone	ND	U	3.36	11.2	ug/Kg	1	10/1/2012 13:23
Acetone	5.41	J	3.60	44.9	ug/Kg	1	10/1/2012 13:23
Benzene	ND	U	0.639	4.49	ug/Kg	1	10/1/2012 13:23
Bromobenzene	ND	U	0.627	4.49	ug/Kg	1	10/1/2012 13:23
Bromochloromethane	ND	U	0.845	4.49	ug/Kg	1	10/1/2012 13:23
Bromodichloromethane	ND	U	0.633	4.49	ug/Kg	1	10/1/2012 13:23
Bromoform	ND	U	0.651	4.49	ug/Kg	1	10/1/2012 13:23
Bromomethane	ND	U	1.30	4.49	ug/Kg	1	10/1/2012 13:23
n-Butylbenzene	ND	U	0.591	4.49	ug/Kg	1	10/1/2012 13:23
Carbon disulfide	ND	U	0.470	4.49	ug/Kg	1	10/1/2012 13:23
Carbon tetrachloride	ND	U	0.511	4.49	ug/Kg	1	10/1/2012 13:23
Chlorobenzene	ND	U	0.627	4.49	ug/Kg	1	10/1/2012 13:23
Chloroethane	ND	U	0.899	4.49	ug/Kg	1	10/1/2012 13:23
Chloroform	ND	U	0.573	4.49	ug/Kg	1	10/1/2012 13:23
Chloromethane	ND	U	1.29	4.49	ug/Kg	1	10/1/2012 13:23
Dibromochloromethane	ND	U	0.998	4.49	ug/Kg	1	10/1/2012 13:23
Dibromomethane	ND	U	0.793	4.49	ug/Kg	1	10/1/2012 13:23

Results of Drainage-W (5ft)

Client Sample ID: **Drainage-W (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112010-A
 Lab Project ID: 31203112

Collection Date: 09/26/2012 15:10
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 94.00

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	0.944	4.49	ug/Kg	1	10/1/2012 13:23
cis-1,3-Dichloropropene	ND	U	0.926	4.49	ug/Kg	1	10/1/2012 13:23
trans-1,3-Dichloropropene	ND	U	0.849	4.49	ug/Kg	1	10/1/2012 13:23
Diisopropyl Ether	ND	U	0.738	4.49	ug/Kg	1	10/1/2012 13:23
Ethyl Benzene	ND	U	0.634	4.49	ug/Kg	1	10/1/2012 13:23
Hexachlorobutadiene	ND	U	0.618	4.49	ug/Kg	1	10/1/2012 13:23
Isopropylbenzene (Cumene)	ND	U	0.559	4.49	ug/Kg	1	10/1/2012 13:23
Methyl iodide	ND	U	0.689	4.49	ug/Kg	1	10/1/2012 13:23
Methylene chloride	1.13	J	0.944	18.0	ug/Kg	1	10/1/2012 13:23
Naphthalene	ND	U	0.817	4.49	ug/Kg	1	10/1/2012 13:23
Styrene	ND	U	0.518	4.49	ug/Kg	1	10/1/2012 13:23
Tetrachloroethene	ND	U	0.675	4.49	ug/Kg	1	10/1/2012 13:23
Toluene	ND	U	0.618	4.49	ug/Kg	1	10/1/2012 13:23
Trichloroethene	ND	U	0.757	4.49	ug/Kg	1	10/1/2012 13:23
Trichlorofluoromethane	ND	U	0.908	4.49	ug/Kg	1	10/1/2012 13:23
Vinyl chloride	ND	U	0.854	4.49	ug/Kg	1	10/1/2012 13:23
Xylene (total)	ND	U	1.59	8.99	ug/Kg	1	10/1/2012 13:23
cis-1,2-Dichloroethene	ND	U	0.549	4.49	ug/Kg	1	10/1/2012 13:23
m,p-Xylene	ND	U	1.52	8.99	ug/Kg	1	10/1/2012 13:23
n-Propylbenzene	ND	U	0.658	4.49	ug/Kg	1	10/1/2012 13:23
o-Xylene	ND	U	0.689	4.49	ug/Kg	1	10/1/2012 13:23
sec-Butylbenzene	ND	U	0.539	4.49	ug/Kg	1	10/1/2012 13:23
tert-Butyl methyl ether (MTBE)	ND	U	0.715	4.49	ug/Kg	1	10/1/2012 13:23
tert-Butylbenzene	ND	U	0.605	4.49	ug/Kg	1	10/1/2012 13:23
trans-1,2-Dichloroethene	ND	U	0.656	4.49	ug/Kg	1	10/1/2012 13:23
trans-1,4-Dichloro-2-butene	ND	U	3.78	22.5	ug/Kg	1	10/1/2012 13:23

Surrogates

1,2-Dichloroethane-d4	110			55.0-173	%	1	10/1/2012 13:23
4-Bromofluorobenzene	104			23.0-141	%	1	10/1/2012 13:23
Toluene d8	105			57.0-134	%	1	10/1/2012 13:23

Batch Information

Analytical Batch: **VMS2595**
 Analytical Method: **SW-846 8260B**
 Instrument: **MSD9**
 Analyst: **DVO**

Prep Batch: **VXX4069**
 Prep Method: **SW-846 5035 SL**
 Prep Date/Time: **09/28/2012 11:26**
 Prep Initial Wt./Vol.: **5.92 g**
 Prep Extract Vol: **5 mL**

Results of Drainage-W (5ft)

Client Sample ID: **Drainage-W (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112010-E
 Lab Project ID: 31203112

Collection Date: 09/26/2012 15:10
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 94.00

Results by MADEP VPH

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
C5-C8 Aliphatics	ND	U	4.76	4.76	mg/kg	1	09/28/2012 17:41
C9-C10 Aromatics	ND	U	4.76	4.76	mg/kg	1	09/28/2012 17:41
C9-C12 Aliphatics	ND	U	4.76	4.76	mg/kg	1	09/28/2012 17:41
Surrogates							
FID - 4-Bromofluorobenzene	89.0			70.0-130	%	1	09/28/2012 17:41
PID - 4-Bromofluorobenzene	80.0			70.0-130	%	1	09/28/2012 17:41

Batch Information

Analytical Batch: **VGC2161**
 Analytical Method: **MADEP VPH**
 Instrument: **GC4**
 Analyst: **MDY**

Prep Batch: **VXX4063**
 Prep Method: **SW-846 5035 VPH prep**
 Prep Date/Time: **09/28/2012 11:26**
 Prep Initial Wt./Vol.: **5.59 g**
 Prep Extract Vol: **5 mL**

Results of Drainage-W (5ft)

Client Sample ID: **Drainage-W (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112010-G
 Lab Project ID: 31203112

Collection Date: 09/26/2012 15:10
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 94.00

Results by SW-846 8270D

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	ND	U	40.7	339	ug/Kg	1	10/5/2012 18:39
1,2-Dichlorobenzene	ND	U	35.8	339	ug/Kg	1	10/5/2012 18:39
1,3-Dichlorobenzene	ND	U	37.5	339	ug/Kg	1	10/5/2012 18:39
1,4-Dichlorobenzene	ND	U	40.2	339	ug/Kg	1	10/5/2012 18:39
2,4,5-Trichlorophenol	ND	U	77.9	339	ug/Kg	1	10/5/2012 18:39
2,4,6-Trichlorophenol	ND	U	57.5	339	ug/Kg	1	10/5/2012 18:39
2,4-Dichlorophenol	ND	U	38.6	339	ug/Kg	1	10/5/2012 18:39
2,4-Dinitrophenol	ND	U	31.5	1700	ug/Kg	1	10/5/2012 18:39
2,4-Dinitrotoluene	ND	U	48.6	339	ug/Kg	1	10/5/2012 18:39
2,6-Dinitrotoluene	ND	U	47.1	339	ug/Kg	1	10/5/2012 18:39
2-Chloronaphthalene	ND	U	66.8	339	ug/Kg	1	10/5/2012 18:39
2-Chlorophenol	ND	U	43.4	339	ug/Kg	1	10/5/2012 18:39
2-Methylnaphthalene	ND	U	42.4	339	ug/Kg	1	10/5/2012 18:39
2-Methylphenol	ND	U	53.5	339	ug/Kg	1	10/5/2012 18:39
2-Nitroaniline	ND	U	63.8	339	ug/Kg	1	10/5/2012 18:39
2-Nitrophenol	ND	U	60.3	339	ug/Kg	1	10/5/2012 18:39
3 and/or 4-Methylphenol	ND	U	47.9	339	ug/Kg	1	10/5/2012 18:39
3,3'-Dichlorobenzidine	ND	U	46.6	679	ug/Kg	1	10/5/2012 18:39
3-Nitroaniline	ND	U	38.3	1700	ug/Kg	1	10/5/2012 18:39
4,6-Dinitro-2-methylphenol	ND	U	15.9	1700	ug/Kg	1	10/5/2012 18:39
4-Chloro-3-methylphenol	ND	U	44.8	339	ug/Kg	1	10/5/2012 18:39
4-Chloroaniline	ND	U	48.3	339	ug/Kg	1	10/5/2012 18:39
4-Chlorophenyl phenyl ether	ND	U	43.8	339	ug/Kg	1	10/5/2012 18:39
Acenaphthene	ND	U	43.8	339	ug/Kg	1	10/5/2012 18:39
Acenaphthylene	ND	U	51.5	339	ug/Kg	1	10/5/2012 18:39
Anthracene	ND	U	45.1	339	ug/Kg	1	10/5/2012 18:39
Benzo(a)anthracene	ND	U	44.6	339	ug/Kg	1	10/5/2012 18:39
Benzo(a)pyrene	ND	U	52.8	339	ug/Kg	1	10/5/2012 18:39
Benzo(b)fluoranthene	ND	U	51.5	339	ug/Kg	1	10/5/2012 18:39
Benzo(g,h,i)perylene	ND	U	44.4	339	ug/Kg	1	10/5/2012 18:39
Benzo(k)fluoranthene	ND	U	53.0	339	ug/Kg	1	10/5/2012 18:39
Benzoic acid	ND	U	98.5	1700	ug/Kg	1	10/5/2012 18:39
Bis(2-Chloroethoxy)methane	ND	U	53.5	339	ug/Kg	1	10/5/2012 18:39
Bis(2-Chloroethyl)ether	ND	U	49.1	339	ug/Kg	1	10/5/2012 18:39
Bis(2-Chloroisopropyl)ether	ND	U	30.3	339	ug/Kg	1	10/5/2012 18:39
Bis(2-Ethylhexyl)phthalate	ND	U	53.8	339	ug/Kg	1	10/5/2012 18:39
4-Bromophenyl phenyl ether	ND	U	50.5	339	ug/Kg	1	10/5/2012 18:39
Butyl benzyl phthalate	ND	U	44.0	339	ug/Kg	1	10/5/2012 18:39
Chrysene	ND	U	38.3	339	ug/Kg	1	10/5/2012 18:39
Di-n-butyl phthalate	ND	U	41.6	339	ug/Kg	1	10/5/2012 18:39
Di-n-octyl phthalate	ND	U	48.3	339	ug/Kg	1	10/5/2012 18:39
Dibenz(a,h)anthracene	ND	U	58.5	339	ug/Kg	1	10/5/2012 18:39
Dibenzofuran	ND	U	48.9	339	ug/Kg	1	10/5/2012 18:39

Results of Drainage-W (5ft)

Client Sample ID: **Drainage-W (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112010-G
 Lab Project ID: 31203112

Collection Date: 09/26/2012 15:10
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 94.00

Results by SW-846 8270D

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diethyl phthalate	ND	U	50.1	339	ug/Kg	1	10/5/2012 18:39
Dimethyl phthalate	ND	U	45.0	339	ug/Kg	1	10/5/2012 18:39
2,4-Dimethylphenol	ND	U	74.8	339	ug/Kg	1	10/5/2012 18:39
Diphenylamine	ND	U	43.5	339	ug/Kg	1	10/5/2012 18:39
Fluoranthene	ND	U	44.3	339	ug/Kg	1	10/5/2012 18:39
Fluorene	ND	U	46.9	339	ug/Kg	1	10/5/2012 18:39
Hexachlorobenzene	ND	U	66.5	1700	ug/Kg	1	10/5/2012 18:39
Hexachlorobutadiene	ND	U	39.0	339	ug/Kg	1	10/5/2012 18:39
Hexachlorocyclopentadiene	ND	U	30.5	679	ug/Kg	1	10/5/2012 18:39
Hexachloroethane	ND	U	34.4	339	ug/Kg	1	10/5/2012 18:39
Indeno(1,2,3-cd)pyrene	ND	U	49.9	339	ug/Kg	1	10/5/2012 18:39
Isophorone	ND	U	42.0	339	ug/Kg	1	10/5/2012 18:39
Naphthalene	ND	U	50.7	339	ug/Kg	1	10/5/2012 18:39
4-Nitroaniline	ND	U	56.4	1700	ug/Kg	1	10/5/2012 18:39
Nitrobenzene	ND	U	49.5	339	ug/Kg	1	10/5/2012 18:39
4-Nitrophenol	ND	U	33.4	1700	ug/Kg	1	10/5/2012 18:39
Pentachlorophenol	ND	U	108	1700	ug/Kg	1	10/5/2012 18:39
Phenanthrene	ND	U	36.0	339	ug/Kg	1	10/5/2012 18:39
Phenol	ND	U	43.8	339	ug/Kg	1	10/5/2012 18:39
Pyrene	ND	U	45.8	339	ug/Kg	1	10/5/2012 18:39
n-Nitrosodi-n-propylamine	ND	U	53.8	339	ug/Kg	1	10/5/2012 18:39
Surrogates							
2,4,6-Tribromophenol	86.0			41.0-129	%	1	10/5/2012 18:39
2-Fluorobiphenyl	91.0			48.0-123	%	1	10/5/2012 18:39
2-Fluorophenol	83.0			42.0-123	%	1	10/5/2012 18:39
Nitrobenzene-d5	85.0			46.0-117	%	1	10/5/2012 18:39
Phenol-d6	86.0			48.0-125	%	1	10/5/2012 18:39
Terphenyl-d14	89.0			44.0-140	%	1	10/5/2012 18:39

Batch Information

Analytical Batch: XMS1693
 Analytical Method: SW-846 8270D
 Instrument: MSD10
 Analyst: CMP

Prep Batch: XXX3128
 Prep Method: SW-846 3541
 Prep Date/Time: 10/01/2012 10:14
 Prep Initial Wt./Vol.: 31.4 g
 Prep Extract Vol: 10 mL

Results of Drainage-W (5ft)

Client Sample ID: **Drainage-W (5ft)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112010-G
 Lab Project ID: 31203112

Collection Date: 09/26/2012 15:10
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 94.00

Results by MADEP EPH

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
C11-C22 Aromatics	ND	U	13.4	13.4	mg/kg	1	10/2/2012 23:15
C19-C36 Aliphatics	ND	U	6.91	6.91	mg/kg	1	10/2/2012 22:47
C9-C18 Aliphatics	ND	U	5.98	5.98	mg/kg	1	10/2/2012 22:47
Surrogates							
2-Bromonaphthalene	86.4			40.0-140	%	1	10/2/2012 23:15
2-Fluorobiphenyl	80.0			40.0-140	%	1	10/2/2012 23:15
n-Tricosane	123			40.0-140	%	1	10/2/2012 22:47
o-Terphenyl	92.0			40.0-140	%	1	10/2/2012 23:15

Batch Information

Analytical Batch: XGC2580
 Analytical Method: MADEP EPH
 Instrument: GC6
 Analyst: DTF

Prep Batch: XXX3123
 Prep Method: SW-846 3541/8015 EPH
 Prep Date/Time: 09/28/2012 11:49
 Prep Initial Wt./Vol.: 12.38 g
 Prep Extract Vol: 10 mL

Results of Drainage Character.

Client Sample ID: **Drainage Character.**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112011-A
 Lab Project ID: 31203112

Collection Date: 09/26/2012 14:50
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 94.30

Results by SW-846 8015C GRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics (GRO)	ND	U	3.59	3.59	mg/kg	1	10/3/2012 18:33

Surrogates

4-Bromofluorobenzene	105			70.0-130	%	1	10/3/2012 18:33
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Batch Information

Analytical Batch: **VGC2164**
 Analytical Method: **SW-846 8015C GRO**
 Instrument: **GC7**
 Analyst: **MDY**

Prep Batch: **VXX4087**
 Prep Method: **SW-846 5035**
 Prep Date/Time: **09/28/2012 11:27**
 Prep Initial Wt./Vol.: **5.9 g**
 Prep Extract Vol: **5 mL**

Results of Drainage Character.

Client Sample ID: **Drainage Character.**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112011-C
 Lab Project ID: 31203112

Collection Date: 09/26/2012 14:50
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 94.30

Results by SW-846 8015C DRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics (DRO)	38.7		6.71	6.71	mg/kg	1	10/2/2012 22:47
Surrogates							
o-Terphenyl	105			40.0-140	%	1	10/2/2012 22:47

Batch Information

Analytical Batch: XGC2577
 Analytical Method: SW-846 8015C DRO
 Instrument: GC6
 Analyst: DTF

Prep Batch: XXX3129
 Prep Method: SW-846 3541
 Prep Date/Time: 10/01/2012 10:18
 Prep Initial Wt./Vol.: 31.59 g
 Prep Extract Vol: 10 mL

Results of Trip Blanks (Not on COC)

Client Sample ID: Trip Blanks (Not on COC)
 Client Project ID: NCDOT Former Strickland
 Lab Sample ID: 31203112012-A
 Lab Project ID: 31203112

Collection Date: 09/26/2012 00:00
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 100.00

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.709	5.00	ug/Kg	1	10/1/2012 11:10
1,1,1-Trichloroethane	ND	U	0.754	5.00	ug/Kg	1	10/1/2012 11:10
1,1,2,2-Tetrachloroethane	ND	U	1.17	5.00	ug/Kg	1	10/1/2012 11:10
1,1,2-Trichloroethane	ND	U	1.04	5.00	ug/Kg	1	10/1/2012 11:10
1,1-Dichloroethane	ND	U	0.538	5.00	ug/Kg	1	10/1/2012 11:10
1,1-Dichloroethene	ND	U	1.16	5.00	ug/Kg	1	10/1/2012 11:10
1,1-Dichloropropene	ND	U	0.676	5.00	ug/Kg	1	10/1/2012 11:10
1,2,3-Trichlorobenzene	ND	U	0.832	5.00	ug/Kg	1	10/1/2012 11:10
1,2,3-Trichloropropane	ND	U	1.03	5.00	ug/Kg	1	10/1/2012 11:10
1,2,4-Trichlorobenzene	ND	U	0.729	5.00	ug/Kg	1	10/1/2012 11:10
1,2,4-Trimethylbenzene	ND	U	0.637	5.00	ug/Kg	1	10/1/2012 11:10
1,2-Dibromo-3-chloropropane	ND	U	7.41	30.0	ug/Kg	1	10/1/2012 11:10
1,2-Dibromoethane	ND	U	1.31	5.00	ug/Kg	1	10/1/2012 11:10
1,2-Dichlorobenzene	ND	U	0.711	5.00	ug/Kg	1	10/1/2012 11:10
1,2-Dichloroethane	ND	U	0.913	5.00	ug/Kg	1	10/1/2012 11:10
1,2-Dichloropropane	ND	U	1.15	5.00	ug/Kg	1	10/1/2012 11:10
1,3,5-Trimethylbenzene	ND	U	0.608	5.00	ug/Kg	1	10/1/2012 11:10
1,3-Dichlorobenzene	ND	U	0.719	5.00	ug/Kg	1	10/1/2012 11:10
1,3-Dichloropropane	ND	U	0.879	5.00	ug/Kg	1	10/1/2012 11:10
1,4-Dichlorobenzene	ND	U	0.675	5.00	ug/Kg	1	10/1/2012 11:10
2,2-Dichloropropane	ND	U	0.738	5.00	ug/Kg	1	10/1/2012 11:10
2-Butanone	ND	U	3.38	25.0	ug/Kg	1	10/1/2012 11:10
2-Chlorotoluene	ND	U	0.937	5.00	ug/Kg	1	10/1/2012 11:10
2-Hexanone	ND	U	3.22	12.5	ug/Kg	1	10/1/2012 11:10
4-Chlorotoluene	ND	U	0.756	5.00	ug/Kg	1	10/1/2012 11:10
4-Isopropyltoluene	ND	U	0.645	5.00	ug/Kg	1	10/1/2012 11:10
4-Methyl-2-pentanone	ND	U	3.74	12.5	ug/Kg	1	10/1/2012 11:10
Acetone	ND	U	4.01	50.0	ug/Kg	1	10/1/2012 11:10
Benzene	ND	U	0.711	5.00	ug/Kg	1	10/1/2012 11:10
Bromobenzene	ND	U	0.697	5.00	ug/Kg	1	10/1/2012 11:10
Bromochloromethane	ND	U	0.940	5.00	ug/Kg	1	10/1/2012 11:10
Bromodichloromethane	ND	U	0.704	5.00	ug/Kg	1	10/1/2012 11:10
Bromoform	ND	U	0.724	5.00	ug/Kg	1	10/1/2012 11:10
Bromomethane	ND	U	1.45	5.00	ug/Kg	1	10/1/2012 11:10
n-Butylbenzene	ND	U	0.657	5.00	ug/Kg	1	10/1/2012 11:10
Carbon disulfide	ND	U	0.523	5.00	ug/Kg	1	10/1/2012 11:10
Carbon tetrachloride	ND	U	0.569	5.00	ug/Kg	1	10/1/2012 11:10
Chlorobenzene	ND	U	0.698	5.00	ug/Kg	1	10/1/2012 11:10
Chloroethane	ND	U	1.00	5.00	ug/Kg	1	10/1/2012 11:10
Chloroform	ND	U	0.637	5.00	ug/Kg	1	10/1/2012 11:10
Chloromethane	ND	U	1.43	5.00	ug/Kg	1	10/1/2012 11:10
Dibromochloromethane	ND	U	1.11	5.00	ug/Kg	1	10/1/2012 11:10
Dibromomethane	ND	U	0.882	5.00	ug/Kg	1	10/1/2012 11:10

Results of Trip Blanks (Not on COC)

Client Sample ID: **Trip Blanks (Not on COC)**
 Client Project ID: **NCDOT Former Strickland**
 Lab Sample ID: 31203112012-A
 Lab Project ID: 31203112

Collection Date: 09/26/2012 00:00
 Received Date: 09/27/2012 15:25
 Matrix: Soil-Solid as dry weight
 Solids (%): 100.00

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND	U	1.05	5.00	ug/Kg	1	10/1/2012 11:10
cis-1,3-Dichloropropene	ND	U	1.03	5.00	ug/Kg	1	10/1/2012 11:10
trans-1,3-Dichloropropene	ND	U	0.944	5.00	ug/Kg	1	10/1/2012 11:10
Diisopropyl Ether	ND	U	0.821	5.00	ug/Kg	1	10/1/2012 11:10
Ethyl Benzene	ND	U	0.705	5.00	ug/Kg	1	10/1/2012 11:10
Hexachlorobutadiene	ND	U	0.687	5.00	ug/Kg	1	10/1/2012 11:10
Isopropylbenzene (Cumene)	ND	U	0.622	5.00	ug/Kg	1	10/1/2012 11:10
Methyl iodide	ND	U	0.766	5.00	ug/Kg	1	10/1/2012 11:10
Methylene chloride	3.40	J	1.05	20.0	ug/Kg	1	10/1/2012 11:10
Naphthalene	ND	U	0.909	5.00	ug/Kg	1	10/1/2012 11:10
Styrene	ND	U	0.576	5.00	ug/Kg	1	10/1/2012 11:10
Tetrachloroethene	ND	U	0.751	5.00	ug/Kg	1	10/1/2012 11:10
Toluene	ND	U	0.688	5.00	ug/Kg	1	10/1/2012 11:10
Trichloroethene	ND	U	0.842	5.00	ug/Kg	1	10/1/2012 11:10
Trichlorofluoromethane	ND	U	1.01	5.00	ug/Kg	1	10/1/2012 11:10
Vinyl chloride	ND	U	0.950	5.00	ug/Kg	1	10/1/2012 11:10
Xylene (total)	ND	U	1.77	10.0	ug/Kg	1	10/1/2012 11:10
cis-1,2-Dichloroethene	ND	U	0.611	5.00	ug/Kg	1	10/1/2012 11:10
m,p-Xylene	ND	U	1.89	10.0	ug/Kg	1	10/1/2012 11:10
n-Propylbenzene	ND	U	0.732	5.00	ug/Kg	1	10/1/2012 11:10
o-Xylene	ND	U	0.766	5.00	ug/Kg	1	10/1/2012 11:10
sec-Butylbenzene	ND	U	0.600	5.00	ug/Kg	1	10/1/2012 11:10
tert-Butyl methyl ether (MTBE)	ND	U	0.795	5.00	ug/Kg	1	10/1/2012 11:10
tert-Butylbenzene	ND	U	0.673	5.00	ug/Kg	1	10/1/2012 11:10
trans-1,2-Dichloroethene	ND	U	0.730	5.00	ug/Kg	1	10/1/2012 11:10
trans-1,4-Dichloro-2-butene	ND	U	4.20	25.0	ug/Kg	1	10/1/2012 11:10

Surrogates

1,2-Dichloroethane-d4	118			55.0-173	%	1	10/1/2012 11:10
4-Bromofluorobenzene	106			23.0-141	%	1	10/1/2012 11:10
Toluene d8	108			57.0-134	%	1	10/1/2012 11:10

Batch Information

Analytical Batch: **VMS2595**
 Analytical Method: **SW-846 8260B**
 Instrument: **MSD9**
 Analyst: **DVO**

Prep Batch: **VXX4069**
 Prep Method: **SW-846 5035 SL**
 Prep Date/Time: **09/28/2012 10:56**
 Prep Initial Wt./Vol.: **5 g**
 Prep Extract Vol: **5 mL**

Batch Summary

Analytical Method: SW-846 8260B

Prep Method: SW-846 5035 SL

Prep Batch: VXX4064

Prep Date: 09/28/2012 09:39

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Analysis Date</u>	<u>Analytical Batch</u>	<u>Instrument</u>	<u>Analyst</u>
LCS-S for HBN 29520 [VXX/4064]	91904	09/28/2012 10:47	VMS2590	MSD9	DVO
LCSD-S for HBN 29520 [VXX/4064]	91905	09/28/2012 11:13	VMS2590	MSD9	DVO
MB-S for HBN 29520 [VXX/4064]	91906	09/28/2012 12:06	VMS2590	MSD9	DVO
GAS-NW (5-6ft)	31203112001	09/28/2012 16:01	VMS2590	MSD9	DVO
GAS-E (5ft)	31203112003	09/28/2012 16:55	VMS2590	MSD9	DVO
GAS-W (5ft)	31203112004	09/28/2012 18:41	VMS2590	MSD9	DVO
MWP-9-26-12-S004-2(91643DUP)	92152	09/28/2012 19:08	VMS2590	MSD9	DVO
MWP-9-26-12-S003-2(91644MS)	92153	09/28/2012 19:35	VMS2590	MSD9	DVO

Method Blank

Blank ID: MB-S for HBN 29520 [VXX/4064]
 Blank Lab ID: 91906
 QC for Samples:
 31203112001, 31203112003, 31203112004

Matrix: Soil-Solid as dry weight

Results by SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
Dichlorodifluoromethane	ND	U	1.05	5.00	ug/Kg	1
Chloromethane	ND	U	1.43	5.00	ug/Kg	1
Vinyl chloride	ND	U	0.950	5.00	ug/Kg	1
Bromomethane	ND	U	1.45	5.00	ug/Kg	1
Chloroethane	ND	U	1.00	5.00	ug/Kg	1
Trichlorofluoromethane	ND	U	1.01	5.00	ug/Kg	1
1,1-Dichloroethene	ND	U	1.16	5.00	ug/Kg	1
Acetone	ND	U	4.01	50.0	ug/Kg	1
Methylene chloride	ND	U	1.05	20.0	ug/Kg	1
trans-1,2-Dichloroethene	ND	U	0.730	5.00	ug/Kg	1
tert-Butyl methyl ether (MTBE)	ND	U	0.795	5.00	ug/Kg	1
1,1-Dichloroethane	ND	U	0.538	5.00	ug/Kg	1
Diisopropyl Ether	ND	U	0.821	5.00	ug/Kg	1
2,2-Dichloropropane	ND	U	0.738	5.00	ug/Kg	1
cis-1,2-Dichloroethene	ND	U	0.611	5.00	ug/Kg	1
2-Butanone	ND	U	3.38	25.0	ug/Kg	1
Bromochloromethane	ND	U	0.940	5.00	ug/Kg	1
Chloroform	ND	U	0.637	5.00	ug/Kg	1
1,1,1-Trichloroethane	ND	U	0.754	5.00	ug/Kg	1
Carbon tetrachloride	ND	U	0.569	5.00	ug/Kg	1
1,1-Dichloropropene	ND	U	0.676	5.00	ug/Kg	1
Benzene	ND	U	0.711	5.00	ug/Kg	1
1,2-Dichloroethane	ND	U	0.913	5.00	ug/Kg	1
Trichloroethene	ND	U	0.842	5.00	ug/Kg	1
1,2-Dichloropropane	ND	U	1.15	5.00	ug/Kg	1
Dibromomethane	ND	U	0.882	5.00	ug/Kg	1
Bromodichloromethane	ND	U	0.704	5.00	ug/Kg	1
cis-1,3-Dichloropropene	ND	U	1.03	5.00	ug/Kg	1
4-Methyl-2-pentanone	ND	U	3.74	12.5	ug/Kg	1
Toluene	ND	U	0.688	5.00	ug/Kg	1
Methyl iodide	ND	U	0.766	5.00	ug/Kg	1
trans-1,3-Dichloropropene	ND	U	0.944	5.00	ug/Kg	1
Carbon disulfide	ND	U	0.523	5.00	ug/Kg	1
1,1,2-Trichloroethane	ND	U	1.04	5.00	ug/Kg	1
Tetrachloroethene	ND	U	0.751	5.00	ug/Kg	1
1,3-Dichloropropane	ND	U	0.879	5.00	ug/Kg	1
2-Hexanone	ND	U	3.22	12.5	ug/Kg	1
Dibromochloromethane	ND	U	1.11	5.00	ug/Kg	1
1,2-Dibromoethane	ND	U	1.31	5.00	ug/Kg	1
Chlorobenzene	ND	U	0.698	5.00	ug/Kg	1
1,1,1,2-Tetrachloroethane	ND	U	0.709	5.00	ug/Kg	1

Method Blank

Blank ID: MB-S for HBN 29520 [VXX/4064]
 Blank Lab ID: 91906
 QC for Samples:
 31203112001, 31203112003, 31203112004

Matrix: Soil-Solid as dry weight

Results by SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
Bromoform	ND	U	0.724	5.00	ug/Kg	1
Bromobenzene	ND	U	0.697	5.00	ug/Kg	1
1,1,2,2-Tetrachloroethane	ND	U	1.17	5.00	ug/Kg	1
1,2,3-Trichloropropane	ND	U	1.03	5.00	ug/Kg	1
Ethyl Benzene	ND	U	0.705	5.00	ug/Kg	1
m,p-Xylene	ND	U	1.69	10.0	ug/Kg	1
Styrene	ND	U	0.576	5.00	ug/Kg	1
o-Xylene	ND	U	0.766	5.00	ug/Kg	1
Xylene (total)	ND	U	1.77	10.0	ug/Kg	1
Isopropylbenzene (Cumene)	ND	U	0.622	5.00	ug/Kg	1
n-Propylbenzene	ND	U	0.732	5.00	ug/Kg	1
2-Chlorotoluene	ND	U	0.937	5.00	ug/Kg	1
4-Chlorotoluene	ND	U	0.756	5.00	ug/Kg	1
1,3,5-Trimethylbenzene	ND	U	0.608	5.00	ug/Kg	1
tert-Butylbenzene	ND	U	0.673	5.00	ug/Kg	1
1,2,4-Trimethylbenzene	ND	U	0.637	5.00	ug/Kg	1
sec-Butylbenzene	ND	U	0.600	5.00	ug/Kg	1
1,3-Dichlorobenzene	ND	U	0.719	5.00	ug/Kg	1
4-Isopropyltoluene	ND	U	0.645	5.00	ug/Kg	1
1,4-Dichlorobenzene	ND	U	0.675	5.00	ug/Kg	1
1,2-Dichlorobenzene	ND	U	0.711	5.00	ug/Kg	1
n-Butylbenzene	ND	U	0.657	5.00	ug/Kg	1
1,2-Dibromo-3-chloropropane	ND	U	7.41	30.0	ug/Kg	1
1,2,4-Trichlorobenzene	ND	U	0.729	5.00	ug/Kg	1
Hexachlorobutadiene	ND	U	0.687	5.00	ug/Kg	1
Naphthalene	ND	U	0.909	5.00	ug/Kg	1
trans-1,4-Dichloro-2-butene	ND	U	4.20	25.0	ug/Kg	1
1,2,3-Trichlorobenzene	ND	U	0.832	5.00	ug/Kg	1
Surrogates						
1,2-Dichloroethane-d4	105			55.0-173	%	1
Toluene d8	104			57.0-134	%	1
4-Bromofluorobenzene	99.0			23.0-141	%	1

Batch Information

Analytical Batch: VMS2590
 Analytical Method: SW-846 8260B
 Instrument: MSD9
 Analyst: DVO

Prep Batch: VXX4064
 Prep Method: SW-846 5035 SL
 Prep Date/Time: 9/28/2012 9:39:54AM
 Prep Initial Wt./Vol.: 5 g
 Prep Extract Vol: 5 mL

Blank Spike Summary

Blank Spike ID: LCS-S for HBN 29520 [VXX/4064]
 Blank Spike Lab ID: 91904
 Date Analyzed: 09/28/2012 10:47

Spike Duplicate ID: LCSD-S for HBN 29520 [VXX/4064]
 Spike Duplicate Lab ID: 91905
 Date Analyzed: 09/28/2012 11:13
 Matrix: Soil-Solid as dry weight

QC for Samples: 31203112001, 31203112003, 31203112004

Results by SW-846 8260B

Parameter	Blank Spike (ug/Kg)			Spike Duplicate (ug/Kg)				RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL		
Dichlorodifluoromethane	30.0	25.0	83	30.0	23.7	79	52.0-133	5.3	30.00
Chloromethane	30.0	27.1	90	30.0	25.6	85	64.0-126	5.7	30.00
Vinyl chloride	30.0	26.0	87	30.0	26.1	87	69.0-120	0.38	30.00
Bromomethane	30.0	35.1	117	30.0	33.7	112	41.0-160	4.1	30.00
Chloroethane	30.0	28.6	95	30.0	28.4	95	69.0-126	0.70	30.00
Trichlorofluoromethane	30.0	28.8	96	30.0	28.1	94	72.0-123	2.5	30.00
1,1-Dichloroethene	30.0	29.8	99	30.0	31.3	104	78.0-113	4.9	30.00
Acetone	75.0	42.7	57	75.0	43.6	58	0.00-243	2.1	30.00
Methylene chloride	30.0	29.4	98	30.0	30.1	100	40.0-156	2.4	30.00
trans-1,2-Dichloroethene	30.0	30.5	102	30.0	31.6	105	78.0-111	3.5	30.00
tert-Butyl methyl ether (MTBE)	30.0	29.0	97	30.0	31.6	105	68.0-138	8.6	30.00
1,1-Dichloroethane	30.0	31.1	104	30.0	31.9	106	71.0-121	2.5	30.00
Diisopropyl Ether	30.0	31.1	104	30.0	32.7	109	60.0-141	5.0	30.00
2,2-Dichloropropane	30.0	36.3	121	30.0	37.4	125	79.0-127	3.0	30.00
cis-1,2-Dichloroethene	30.0	31.2	104	30.0	33.1	110	80.0-114	5.9	30.00
2-Butanone	75.0	48.9	65	75.0	54.5	73	31.0-189	11	30.00
Bromochloromethane	30.0	32.7	109	30.0	35.0	117*	81.0-115	6.8	30.00
Chloroform	30.0	31.9	106	30.0	33.7	112	76.0-114	5.5	30.00
1,1,1-Trichloroethane	30.0	33.3	111	30.0	34.3	114	79.0-117	3.0	30.00
Carbon tetrachloride	30.0	34.1	114	30.0	35.7	119	82.0-119	4.6	30.00
1,1-Dichloropropene	30.0	31.6	105	30.0	32.5	108	82.0-114	2.8	30.00
Benzene	30.0	30.7	102	30.0	32.7	109	82.0-113	6.3	30.00
1,2-Dichloroethane	30.0	32.8	109	30.0	34.2	114	72.0-126	4.2	30.00
Trichloroethene	30.0	31.3	104	30.0	32.5	108	82.0-108	3.8	30.00
1,2-Dichloropropane	30.0	31.2	104	30.0	32.6	109	78.0-116	4.4	30.00
Dibromomethane	30.0	31.4	105	30.0	33.1	110	79.0-125	5.3	30.00
Bromodichloromethane	30.0	32.8	109	30.0	34.2	114	79.0-122	4.2	30.00
cis-1,3-Dichloropropene	30.0	28.1	94	30.0	29.8	99	75.0-127	5.9	30.00
4-Methyl-2-pentanone	75.0	75.1	100	75.0	83.7	112	57.0-159	11	30.00
Toluene	30.0	31.7	106	30.0	33.0	110	83.0-111	4.0	30.00
Methyl iodide	30.0	30.9	103	30.0	32.7	109	63.0-137	5.7	30.00
trans-1,3-Dichloropropene	30.0	30.0	100	30.0	31.4	105	75.0-134	4.6	30.00
Carbon disulfide	30.0	30.4	101	30.0	31.2	104	72.0-116	2.6	30.00
1,1,2-Trichloroethane	30.0	29.0	97	30.0	30.3	101	73.0-121	4.4	30.00

Blank Spike Summary

Blank Spike ID: LCS-S for HBN 29520 [VXX/4064]
 Blank Spike Lab ID: 91904
 Date Analyzed: 09/28/2012 10:47

Spike Duplicate ID: LCSD-S for HBN 29520 [VXX/4064]
 Spike Duplicate Lab ID: 91905
 Date Analyzed: 09/28/2012 11:13
 Matrix: Soil-Solid as dry weight

QC for Samples: 31203112001, 31203112003, 31203112004

Results by SW-846 8260B

Parameter	Blank Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Tetrachloroethene	30.0	30.2	101	30.0	30.3	101	60.0-118	0.33	30.00
1,3-Dichloropropane	30.0	28.5	95	30.0	29.5	98	76.0-121	3.4	30.00
2-Hexanone	75.0	48.7	65	75.0	54.6	73	41.0-171	11	30.00
Dibromochloromethane	30.0	29.6	99	30.0	31.2	104	77.0-126	5.3	30.00
1,2-Dibromoethane	30.0	28.8	96	30.0	30.3	101	76.0-125	5.1	30.00
Chlorobenzene	30.0	29.0	97	30.0	29.9	100	78.0-109	3.1	30.00
1,1,1,2-Tetrachloroethane	30.0	34.2	114	30.0	35.5	118*	81.0-117	3.7	30.00
Bromoform	30.0	33.1	110	30.0	35.5	118	72.0-134	7.0	30.00
Bromobenzene	30.0	29.2	97	30.0	30.4	101	76.0-113	4.0	30.00
1,1,2,2-Tetrachloroethane	30.0	28.4	95	30.0	31.0	103	76.0-129	8.8	30.00
1,2,3-Trichloropropane	30.0	28.4	95	30.0	30.9	103	70.0-145	8.4	30.00
Ethyl Benzene	30.0	26.1	87	30.0	27.2	91	72.0-115	4.1	30.00
m,p-Xylene	60.0	53.4	89	60.0	54.1	90	73.0-114	1.3	30.00
Styrene	30.0	26.0	87	30.0	26.8	89	74.0-114	3.0	30.00
o-Xylene	30.0	26.2	87	30.0	27.4	91	74.0-113	4.5	30.00
Isopropylbenzene (Cumene)	30.0	27.0	90	30.0	28.1	94	72.0-115	4.0	30.00
n-Propylbenzene	30.0	27.1	90	30.0	28.2	94	71.0-117	4.0	30.00
2-Chlorotoluene	30.0	26.8	89	30.0	27.8	93	76.0-111	3.7	30.00
4-Chlorotoluene	30.0	26.0	87	30.0	27.2	91	75.0-113	4.5	30.00
1,3,5-Trimethylbenzene	30.0	26.7	89	30.0	28.0	93	72.0-115	4.8	30.00
tert-Butylbenzene	30.0	26.6	89	30.0	27.9	93	74.0-112	4.8	30.00
1,2,4-Trimethylbenzene	30.0	27.1	90	30.0	28.2	94	73.0-114	4.0	30.00
sec-Butylbenzene	30.0	26.2	87	30.0	27.2	91	72.0-115	3.7	30.00
1,3-Dichlorobenzene	30.0	26.8	89	30.0	28.0	93	75.0-110	4.4	30.00
4-Isopropyltoluene	30.0	26.6	89	30.0	27.4	91	73.0-114	3.0	30.00
1,4-Dichlorobenzene	30.0	27.0	90	30.0	28.2	94	76.0-110	4.3	30.00
1,2-Dichlorobenzene	30.0	26.4	88	30.0	28.1	94	77.0-109	6.2	30.00
n-Butylbenzene	30.0	26.8	89	30.0	27.6	92	72.0-118	2.9	30.00
1,2-Dibromo-3-chloropropane	180	157	87	180	177	98	54.0-166	12	30.00
1,2,4-Trichlorobenzene	30.0	27.8	93	30.0	31.6	105	76.0-115	13	30.00
Hexachlorobutadiene	30.0	29.2	97	30.0	29.9	100	70.0-111	2.4	30.00
Naphthalene	30.0	26.3	88	30.0	29.8	99	71.0-129	12	30.00
trans-1,4-Dichloro-2-butene	150	125	83	150	136	91	62.0-164	8.4	30.00
1,2,3-Trichlorobenzene	30.0	27.5	92	30.0	29.8	99	78.0-115	8.0	30.00

Blank Spike Summary

Blank Spike ID: LCS-S for HBN 29520 [VXX/4064]

Blank Spike Lab ID: 91904

Date Analyzed: 09/28/2012 10:47

QC for Samples: 31203112001, 31203112003, 31203112004

Spike Duplicate ID: LCSD-S for HBN 29520 [VXX/4064]

Spike Duplicate Lab ID: 91905

Date Analyzed: 09/28/2012 11:13

Matrix: Soil-Solid as dry weight

Results by SW-846 8260B

Parameter	Blank Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Surrogates									
1,2-Dichloroethane-d4			104			105	55.0-173		
Toluene d8			103			103	57.0-134		
4-Bromofluorobenzene			106			104	23.0-141		

Batch Information

Analytical Batch: VMS2590

Analytical Method: SW-846 8260B

Instrument: MSD9

Analyst: DVO

Prep Batch: VXX4064

Prep Method: SW-846 5035 SL

Prep Date/Time: 09/28/2012 09:39

Spike Init Wt./Vol.: 5 g Extract Vol: 5 mL

Dupe Init Wt./Vol.: 5 g Extract Vol: 5 mL

Batch Summary

Analytical Method: SW-846 8260B

Prep Method: SW-846 5035 SL

Prep Batch: VXX4069

Prep Date: 10/01/2012 08:24

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Analysis Date</u>	<u>Analytical Batch</u>	<u>Instrument</u>	<u>Analyst</u>
LCS-S for HBN 29748 [VXX/4069]	92112	10/01/2012 09:24	VMS2595	MSD9	DVO
LCSD-S for HBN 29748 [VXX/4069]	92113	10/01/2012 09:51	VMS2595	MSD9	DVO
MB-S for HBN 29748 [VXX/4069]	92114	10/01/2012 10:44	VMS2595	MSD9	DVO
Trip Blanks (Not on COC)	31203112012	10/01/2012 11:10	VMS2595	MSD9	DVO
GAS-NE (5-6ft)	31203112002	10/01/2012 12:03	VMS2595	MSD9	DVO
Drainage-N (5ft)	31203112008	10/01/2012 12:30	VMS2595	MSD9	DVO
Drainage-S (5ft)	31203112009	10/01/2012 12:56	VMS2595	MSD9	DVO
Drainage-W (5ft)	31203112010	10/01/2012 13:23	VMS2595	MSD9	DVO
Excavation Bottom-1(92161MS)	92502	10/01/2012 18:20	VMS2595	MSD9	DVO
Excavation Bottom-1(92161MSD)	92503	10/01/2012 18:47	VMS2595	MSD9	DVO

Method Blank

Blank ID: MB-S for HBN 29748 [VXX/4069]

Matrix: Soil-Solid as dry weight

Blank Lab ID: 92114

QC for Samples:

31203112002, 31203112008, 31203112009, 31203112010, 31203112012

Results by SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
Dichlorodifluoromethane	ND	U	1.05	5.00	ug/Kg	1
Chloromethane	ND	U	1.43	5.00	ug/Kg	1
Vinyl chloride	ND	U	0.950	5.00	ug/Kg	1
Bromomethane	ND	U	1.45	5.00	ug/Kg	1
Chloroethane	ND	U	1.00	5.00	ug/Kg	1
Trichlorofluoromethane	ND	U	1.01	5.00	ug/Kg	1
1,1-Dichloroethene	ND	U	1.16	5.00	ug/Kg	1
Acetone	ND	U	4.01	50.0	ug/Kg	1
Methylene chloride	ND	U	1.05	20.0	ug/Kg	1
trans-1,2-Dichloroethene	ND	U	0.730	5.00	ug/Kg	1
tert-Butyl methyl ether (MTBE)	ND	U	0.795	5.00	ug/Kg	1
1,1-Dichloroethane	ND	U	0.538	5.00	ug/Kg	1
Diisopropyl Ether	ND	U	0.821	5.00	ug/Kg	1
2,2-Dichloropropane	ND	U	0.738	5.00	ug/Kg	1
cis-1,2-Dichloroethene	ND	U	0.611	5.00	ug/Kg	1
2-Butanone	ND	U	3.38	25.0	ug/Kg	1
Bromochloromethane	ND	U	0.940	5.00	ug/Kg	1
Chloroform	ND	U	0.637	5.00	ug/Kg	1
1,1,1-Trichloroethane	ND	U	0.754	5.00	ug/Kg	1
Carbon tetrachloride	ND	U	0.569	5.00	ug/Kg	1
1,1-Dichloropropene	ND	U	0.676	5.00	ug/Kg	1
Benzene	ND	U	0.711	5.00	ug/Kg	1
1,2-Dichloroethane	ND	U	0.913	5.00	ug/Kg	1
Trichloroethene	ND	U	0.842	5.00	ug/Kg	1
1,2-Dichloropropane	ND	U	1.15	5.00	ug/Kg	1
Dibromomethane	ND	U	0.882	5.00	ug/Kg	1
Bromodichloromethane	ND	U	0.704	5.00	ug/Kg	1
cis-1,3-Dichloropropene	ND	U	1.03	5.00	ug/Kg	1
4-Methyl-2-pentanone	ND	U	3.74	12.5	ug/Kg	1
Toluene	ND	U	0.688	5.00	ug/Kg	1
Methyl iodide	ND	U	0.766	5.00	ug/Kg	1
trans-1,3-Dichloropropene	ND	U	0.944	5.00	ug/Kg	1
Carbon disulfide	ND	U	0.523	5.00	ug/Kg	1
1,1,2-Trichloroethane	ND	U	1.04	5.00	ug/Kg	1
Tetrachloroethene	ND	U	0.751	5.00	ug/Kg	1
1,3-Dichloropropane	ND	U	0.879	5.00	ug/Kg	1
2-Hexanone	ND	U	3.22	12.5	ug/Kg	1
Dibromochloromethane	ND	U	1.11	5.00	ug/Kg	1
1,2-Dibromoethane	ND	U	1.31	5.00	ug/Kg	1
Chlorobenzene	ND	U	0.698	5.00	ug/Kg	1
1,1,1,2-Tetrachloroethane	ND	U	0.709	5.00	ug/Kg	1

Method Blank

Blank ID: MB-S for HBN 29748 [VXX/4069]

Matrix: Soil-Solid as dry weight

Blank Lab ID: 92114

QC for Samples:

31203112002, 31203112008, 31203112009, 31203112010, 31203112012

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Bromoform	ND	U	0.724	5.00	ug/Kg	1
Bromobenzene	ND	U	0.697	5.00	ug/Kg	1
1,1,2,2-Tetrachloroethane	ND	U	1.17	5.00	ug/Kg	1
1,2,3-Trichloropropane	ND	U	1.03	5.00	ug/Kg	1
Ethyl Benzene	ND	U	0.705	5.00	ug/Kg	1
m,p-Xylene	ND	U	1.69	10.0	ug/Kg	1
Styrene	ND	U	0.576	5.00	ug/Kg	1
o-Xylene	ND	U	0.766	5.00	ug/Kg	1
Xylene (total)	ND	U	1.77	10.0	ug/Kg	1
Isopropylbenzene (Cumene)	ND	U	0.622	5.00	ug/Kg	1
n-Propylbenzene	ND	U	0.732	5.00	ug/Kg	1
2-Chlorotoluene	ND	U	0.937	5.00	ug/Kg	1
4-Chlorotoluene	ND	U	0.756	5.00	ug/Kg	1
1,3,5-Trimethylbenzene	ND	U	0.608	5.00	ug/Kg	1
tert-Butylbenzene	ND	U	0.673	5.00	ug/Kg	1
1,2,4-Trimethylbenzene	ND	U	0.637	5.00	ug/Kg	1
sec-Butylbenzene	ND	U	0.600	5.00	ug/Kg	1
1,3-Dichlorobenzene	ND	U	0.719	5.00	ug/Kg	1
4-Isopropyltoluene	ND	U	0.645	5.00	ug/Kg	1
1,4-Dichlorobenzene	ND	U	0.675	5.00	ug/Kg	1
1,2-Dichlorobenzene	ND	U	0.711	5.00	ug/Kg	1
n-Butylbenzene	ND	U	0.657	5.00	ug/Kg	1
1,2-Dibromo-3-chloropropane	ND	U	7.41	30.0	ug/Kg	1
1,2,4-Trichlorobenzene	ND	U	0.729	5.00	ug/Kg	1
Hexachlorobutadiene	ND	U	0.687	5.00	ug/Kg	1
Naphthalene	ND	U	0.909	5.00	ug/Kg	1
trans-1,4-Dichloro-2-butene	ND	U	4.20	25.0	ug/Kg	1
1,2,3-Trichlorobenzene	ND	U	0.832	5.00	ug/Kg	1
Surrogates						
1,2-Dichloroethane-d4	108			55.0-173	%	1
Toluene d8	106			57.0-134	%	1
4-Bromofluorobenzene	103			23.0-141	%	1

Batch Information

Analytical Batch: VMS2595

Prep Batch: VXX4069

Analytical Method: SW-846 8260B

Prep Method: SW-846 5035 SL

Instrument: MSD9

Prep Date/Time: 10/1/2012 8:24:55AM

Analyst: DVO

Prep Initial Wt./Vol.: 5 g

Prep Extract Vol: 5 mL

Blank Spike Summary

Blank Spike ID: LCS-S for HBN 29748 [VXX/4069]

Blank Spike Lab ID: 92112

Date Analyzed: 10/01/2012 09:24

Spike Duplicate ID: LCSD-S for HBN 29748 [VXX/4069]

Spike Duplicate Lab ID: 92113

Date Analyzed: 10/01/2012 09:51

Matrix: Soil-Solid as dry weight

QC for Samples: 31203112002, 31203112008, 31203112009, 31203112010, 31203112012

Results by SW-846 8260B

Parameter	Blank Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Dichlorodifluoromethane	30.0	25.2	84	30.0	24.4	81	52.0-133	3.2	30.00
Chloromethane	30.0	27.5	92	30.0	26.2	87	64.0-126	4.8	30.00
Vinyl chloride	30.0	26.4	88	30.0	26.1	87	69.0-120	1.1	30.00
Bromomethane	30.0	44.7	149	30.0	46.5	155	41.0-160	3.9	30.00
Chloroethane	30.0	29.9	100	30.0	27.7	92	69.0-126	7.6	30.00
Trichlorofluoromethane	30.0	29.0	97	30.0	28.3	94	72.0-123	2.4	30.00
1,1-Dichloroethane	30.0	30.2	101	30.0	30.5	102	78.0-113	0.99	30.00
Acetone	75.0	32.8	44	75.0	41.0	55	0.00-243	22	30.00
Methylene chloride	30.0	28.0	93	30.0	29.2	97	40.0-156	4.2	30.00
trans-1,2-Dichloroethene	30.0	31.5	105	30.0	30.9	103	78.0-111	1.9	30.00
tert-Butyl methyl ether (MTBE)	30.0	29.6	99	30.0	28.2	94	68.0-138	4.8	30.00
1,1-Dichloroethane	30.0	30.9	103	30.0	28.4	95	71.0-121	8.4	30.00
Diisopropyl Ether	30.0	31.7	106	30.0	31.3	104	60.0-141	1.3	30.00
2,2-Dichloropropane	30.0	39.2	131*	30.0	38.7	129*	79.0-127	1.3	30.00
cis-1,2-Dichloroethene	30.0	31.6	105	30.0	32.0	107	80.0-114	1.3	30.00
2-Butanone	75.0	43.7	58	75.0	45.3	60	31.0-189	3.6	30.00
Bromochloromethane	30.0	32.1	107	30.0	32.3	108	81.0-115	0.62	30.00
Chloroform	30.0	31.9	106	30.0	32.8	109	76.0-114	2.8	30.00
1,1,1-Trichloroethane	30.0	34.1	114	30.0	33.5	112	79.0-117	1.8	30.00
Carbon tetrachloride	30.0	36.3	121*	30.0	35.3	118	82.0-119	2.8	30.00
1,1-Dichloropropene	30.0	31.5	105	30.0	32.1	107	82.0-114	1.9	30.00
Benzene	30.0	31.2	104	30.0	31.4	105	82.0-113	0.64	30.00
1,2-Dichloroethane	30.0	31.0	103	30.0	31.9	106	72.0-126	2.9	30.00
Trichloroethene	30.0	31.9	106	30.0	31.4	105	82.0-108	1.6	30.00
1,2-Dichloropropane	30.0	31.2	104	30.0	31.5	105	78.0-116	0.96	30.00
Dibromomethane	30.0	30.4	101	30.0	30.8	103	79.0-125	1.3	30.00
Bromodichloromethane	30.0	33.3	111	30.0	33.7	112	79.0-122	1.2	30.00
cis-1,3-Dichloropropene	30.0	29.4	98	30.0	29.9	100	75.0-127	1.7	30.00
4-Methyl-2-pentanone	75.0	69.8	93	75.0	70.4	94	57.0-159	0.86	30.00
Toluene	30.0	32.1	107	30.0	32.5	108	83.0-111	1.2	30.00
Methyl iodide	30.0	32.0	107	30.0	33.3	111	63.0-137	4.0	30.00
trans-1,3-Dichloropropene	30.0	31.7	106	30.0	31.8	106	75.0-134	0.31	30.00
Carbon disulfide	30.0	30.9	103	30.0	31.2	104	72.0-116	0.97	30.00
1,1,2-Trichloroethane	30.0	26.5	88	30.0	27.8	93	73.0-121	4.8	30.00

Blank Spike Summary

Blank Spike ID: LCS-S for HBN 29748 [VXX/4069]
 Blank Spike Lab ID: 92112
 Date Analyzed: 10/01/2012 09:24

Spike Duplicate ID: LCSD-S for HBN 29748 [VXX/4069]
 Spike Duplicate Lab ID: 92113
 Date Analyzed: 10/01/2012 09:51
 Matrix: Soil-Solid as dry weight

QC for Samples: 31203112002, 31203112008, 31203112009, 31203112010, 31203112012

Results by SW-846 8260B

Parameter	Blank Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Tetrachloroethene	30.0	28.9	96	30.0	29.5	98	60.0-118	2.1	30.00
1,3-Dichloropropane	30.0	26.8	89	30.0	26.9	90	76.0-121	0.37	30.00
2-Hexanone	75.0	45.3	60	75.0	44.0	59	41.0-171	2.9	30.00
Dibromochloromethane	30.0	29.5	98	30.0	29.5	98	77.0-126	0.0	30.00
1,2-Dibromoethane	30.0	26.9	90	30.0	27.7	92	76.0-125	2.9	30.00
Chlorobenzene	30.0	28.3	94	30.0	28.5	95	78.0-109	0.70	30.00
1,1,1,2-Tetrachloroethane	30.0	34.1	114	30.0	34.9	116	81.0-117	2.3	30.00
Bromoform	30.0	32.3	108	30.0	32.7	109	72.0-134	1.2	30.00
Bromobenzene	30.0	29.0	97	30.0	28.4	95	76.0-113	2.1	30.00
1,1,1,2,2-Tetrachloroethane	30.0	26.8	89	30.0	26.9	90	76.0-129	0.37	30.00
1,2,3-Trichloropropane	30.0	26.3	88	30.0	25.4	85	70.0-145	3.5	30.00
Ethyl Benzene	30.0	26.1	87	30.0	26.5	88	72.0-115	1.5	30.00
m,p-Xylene	60.0	52.8	88	60.0	53.7	89	73.0-114	1.7	30.00
Styrene	30.0	26.1	87	30.0	25.8	86	74.0-114	1.2	30.00
o-Xylene	30.0	26.5	88	30.0	25.9	86	74.0-113	2.3	30.00
Isopropylbenzene (Cumene)	30.0	27.2	91	30.0	26.5	88	72.0-115	2.6	30.00
n-Propylbenzene	30.0	27.5	92	30.0	28.0	93	71.0-117	1.8	30.00
2-Chlorotoluene	30.0	27.1	90	30.0	27.5	92	76.0-111	1.5	30.00
4-Chlorotoluene	30.0	26.2	87	30.0	26.4	88	75.0-113	0.76	30.00
1,3,5-Trimethylbenzene	30.0	27.3	91	30.0	27.5	92	72.0-115	0.73	30.00
tert-Butylbenzene	30.0	27.5	92	30.0	27.1	90	74.0-112	1.5	30.00
1,2,4-Trimethylbenzene	30.0	27.7	92	30.0	27.8	93	73.0-114	0.36	30.00
sec-Butylbenzene	30.0	26.7	89	30.0	26.9	90	72.0-115	0.75	30.00
1,3-Dichlorobenzene	30.0	27.4	91	30.0	27.7	92	75.0-110	1.1	30.00
4-Isopropyltoluene	30.0	27.1	90	30.0	27.3	91	73.0-114	0.74	30.00
1,4-Dichlorobenzene	30.0	27.6	92	30.0	27.3	91	76.0-110	1.1	30.00
1,2-Dichlorobenzene	30.0	26.7	89	30.0	27.0	90	77.0-109	1.1	30.00
n-Butylbenzene	30.0	27.3	91	30.0	27.4	91	72.0-118	0.37	30.00
1,2-Dibromo-3-chloropropane	180	148	82	180	154	85	54.0-166	4.0	30.00
1,2,4-Trichlorobenzene	30.0	27.3	91	30.0	29.1	97	76.0-115	6.4	30.00
Hexachlorobutadiene	30.0	28.3	94	30.0	29.8	99	70.0-111	5.2	30.00
Naphthalene	30.0	24.9	83	30.0	25.5	85	71.0-129	2.4	30.00
trans-1,4-Dichloro-2-butene	150	118	79	150	117	78	62.0-164	0.85	30.00
1,2,3-Trichlorobenzene	30.0	27.2	91	30.0	29.0	97	78.0-115	6.4	30.00

Blank Spike Summary

Blank Spike ID: LCS-S for HBN 29748 [VXX/4069]
 Blank Spike Lab ID: 92112
 Date Analyzed: 10/01/2012 09:24

Spike Duplicate ID: LCSD-S for HBN 29748 [VXX/4069]
 Spike Duplicate Lab ID: 92113
 Date Analyzed: 10/01/2012 09:51
 Matrix: Soil-Solid as dry weight

QC for Samples: 31203112002, 31203112008, 31203112009, 31203112010, 31203112012

Results by SW-846 8260B

Parameter	Blank Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Surrogates									
1,2-Dichloroethane-d4			100			101	55.0-173		
Toluene d8			103			103	57.0-134		
4-Bromofluorobenzene			106			104	23.0-141		

Batch Information

Analytical Batch: VMS2595
 Analytical Method: SW-846 8260B
 Instrument: MSD9
 Analyst: DVO

Prep Batch: VXX4069
 Prep Method: SW-846 5035 SL
 Prep Date/Time: 10/01/2012 08:24
 Spike Init Wt./Vol.: 5 g Extract Vol: 5 mL
 Dupe Init Wt./Vol.: 5 g Extract Vol: 5 mL

Batch Summary

Analytical Method: MADEP VPH

Prep Method: SW-846 5035 VPH prep

Prep Batch: VXX4063

Prep Date: 09/28/2012 09:33

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Analysis Date</u>	<u>Analytical Batch</u>	<u>Instrument</u>	<u>Analyst</u>
LCS for HBN 29517 [VXX/4063]	91891	09/28/2012 10:55	VGC2161	GC4	MDY
LCSD for HBN 29517 [VXX/4063]	91892	09/28/2012 11:21	VGC2161	GC4	MDY
MB-S for HBN 29517 [VXX/4063]	91893	09/28/2012 11:47	VGC2161	GC4	MDY
GAS-NW (5-6ft)	31203112001	09/28/2012 14:12	VGC2161	GC4	MDY
GAS-NE (5-6ft)	31203112002	09/28/2012 14:38	VGC2161	GC4	MDY
GAS-E (5ft)	31203112003	09/28/2012 15:04	VGC2161	GC4	MDY
GAS-W (5ft)	31203112004	09/28/2012 15:30	VGC2161	GC4	MDY
Drainage-N (5ft)	31203112008	09/28/2012 15:57	VGC2161	GC4	MDY
Drainage-S (5ft)	31203112009	09/28/2012 16:23	VGC2161	GC4	MDY
Drainage-W (5ft)	31203112010	09/28/2012 17:41	VGC2161	GC4	MDY

Method Blank

Blank ID: MB-S for HBN 29517 [VXX/4063]

Matrix: Soil-Solid as dry weight

Blank Lab ID: 91893

QC for Samples:

31203112001, 31203112002, 31203112003, 31203112004, 31203112008, 31203112009, 31203112010

Results by MADEP VPH

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
C5-C8 Aliphatics	ND	U	5.00	5.00	mg/kg	1
C9-C12 Aliphatics	ND	U	5.00	5.00	mg/kg	1
C9-C10 Aromatics	ND	U	5.00	5.00	mg/kg	1
Surrogates						
FID - 4-Bromofluorobenzene	90.0			70.0-130	%	1
PID - 4-Bromofluorobenzene	77.0			70.0-130	%	1

Batch Information

Analytical Batch: VGC2161

Prep Batch: VXX4063

Analytical Method: MADEP VPH

Prep Method: SW-846 5035 VPH prep

Instrument: GC4

Prep Date/Time: 9/28/2012 9:33:04AM

Analyst: MDY

Prep Initial Wt./Vol.: 5 g

Prep Extract Vol: 5 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 29517 [VXX/4063]
 Blank Spike Lab ID: 91891
 Date Analyzed: 09/28/2012 10:55

Spike Duplicate ID: LCSD for HBN 29517 [VXX/4063]
 Spike Duplicate Lab ID: 91892
 Date Analyzed: 09/28/2012 11:21
 Matrix: Soil-Solid as dry weight

QC for Samples: 31203112001, 31203112002, 31203112003, 31203112004, 31203112008, 31203112009, 31203112010

Results by MADEP VPH

Parameter	Blank Spike (mg/kg)			Spike Duplicate (mg/kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total VPH	16.0	16.2	101	16.0	16.3	102	70.0-130	0.62	30.00
Surrogates									
FID - 4-Bromofluorobenzene			92			92	70.0-130		
PID - 4-Bromofluorobenzene			80			78	70.0-130		

Batch Information

Analytical Batch: VGC2161
 Analytical Method: MADEP VPH
 Instrument: GC4
 Analyst: MDY

Prep Batch: VXX4063
 Prep Method: SW-846 5035 VPH prep
 Prep Date/Time: 09/28/2012 09:33
 Spike Init Wt./Vol.: 5 g Extract Vol: 5 mL
 Dupe Init Wt./Vol.: 5 g Extract Vol: 5 mL

Batch Summary

Analytical Method: SW-846 8015C GRO

Prep Method: SW-846 5035

Prep Batch: VXX4087

Prep Date: 10/03/2012 08:51

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Analysis Date</u>	<u>Analytical Batch</u>	<u>Instrument</u>	<u>Analyst</u>
LCS for HBN 30022 [VXX/4087]	92606	10/03/2012 10:53	VGC2164	GC7	MDY
LCSD for HBN 30022 [VXX/4087]	92607	10/03/2012 11:19	VGC2164	GC7	MDY
MB for HBN 30022 [VXX/4087]	92608	10/03/2012 11:44	VGC2164	GC7	MDY
N-UST-E (6ft)	31203112005	10/03/2012 17:17	VGC2164	GC7	MDY
N-UST-W (6ft)	31203112006	10/03/2012 17:42	VGC2164	GC7	MDY
S-UST (5.5ft)	31203112007	10/03/2012 18:08	VGC2164	GC7	MDY
Drainage Character.	31203112011	10/03/2012 18:33	VGC2164	GC7	MDY

Method Blank

Blank ID: MB for HBN 30022 [VXX/4087]
 Blank Lab ID: 92608
 QC for Samples:
 31203112005, 31203112006, 31203112007, 31203112011

Matrix: Soil-Solid as dry weight

Results by SW-846 8015C GRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
Gasoline Range Organics (GRO)	ND	U	4.00	4.00	mg/kg	1
Surrogates						
4-Bromofluorobenzene	98.3			70.0-130	%	1

Batch Information

Analytical Batch: VGC2164
 Analytical Method: SW-846 8015C GRO
 Instrument: GC7
 Analyst: MDY

Prep Batch: VXX4087
 Prep Method: SW-846 5035
 Prep Date/Time: 10/3/2012 8:51:09AM
 Prep Initial Wt./Vol.: 5 g
 Prep Extract Vol: 5 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 30022 [VXX/4087]
 Blank Spike Lab ID: 92606
 Date Analyzed: 10/03/2012 10:53

Spike Duplicate ID: LCSD for HBN 30022 [VXX/4087]
 Spike Duplicate Lab ID: 92607
 Date Analyzed: 10/03/2012 11:19
 Matrix: Soil-Solid as dry weight

QC for Samples: 31203112005, 31203112006, 31203112007, 31203112011

Results by SW-846 8015C GRO

Parameter	Blank Spike (mg/kg)			Spike Duplicate (mg/kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Gasoline Range Organics (GRO)	16.0	16.1	100	16.0	16.1	100	70.0-130	0.0	30.00

Surrogates

4-Bromofluorobenzene		97.5		98.2		70.0-130
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Batch Information

Analytical Batch: VGC2164
 Analytical Method: SW-846 8015C GRO
 Instrument: GC7
 Analyst: MDY

Prep Batch: VXX4087
 Prep Method: SW-846 5035
 Prep Date/Time: 10/03/2012 08:51
 Spike Init Wt./Vol.: 5 g Extract Vol: 5 mL
 Dupe Init Wt./Vol.: 5 g Extract Vol: 5 mL

Batch Summary

Analytical Method: SW-846 8270D

Prep Method: SW-846 3541

Prep Batch: XXX3128

Prep Date: 10/01/2012 10:14

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Analysis Date</u>	<u>Analytical Batch</u>	<u>Instrument</u>	<u>Analyst</u>
MB for HBN 29949 [XXX/3128]	92198	10/02/2012 11:38	XMS1687	MSD10	CMP
LCS for HBN 29949 [XXX/3128]	92199	10/02/2012 12:01	XMS1687	MSD10	CMP
MWP-9-26-12-S014(91641MS)	92200	10/02/2012 14:18	XMS1687	MSD10	CMP
MWP-9-26-12-S014(91641MSD)	92201	10/02/2012 14:41	XMS1687	MSD10	CMP
GAS-NW (5-6ft)	31203112001	10/02/2012 21:31	XMS1687	MSD10	CMP
GAS-NE (5-6ft)	31203112002	10/02/2012 21:54	XMS1687	MSD10	CMP
GAS-W (5ft)	31203112004	10/05/2012 17:31	XMS1693	MSD10	CMP
Drainage-N (5ft)	31203112008	10/05/2012 17:54	XMS1693	MSD10	CMP
Drainage-S (5ft)	31203112009	10/05/2012 18:17	XMS1693	MSD10	CMP
Drainage-W (5ft)	31203112010	10/05/2012 18:39	XMS1693	MSD10	CMP

Method Blank

Blank ID: MB for HBN 29949 [XXX/3128]

Matrix: Soil-Solid as dry weight

Blank Lab ID: 92198

QC for Samples:

31203112001, 31203112002, 31203112004, 31203112008, 31203112009, 31203112010

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Phenol	ND	U	29.2	313	ug/Kg	1
Bis(2-Chloroethyl)ether	ND	U	29.2	313	ug/Kg	1
2-Chlorophenol	ND	U	16.6	313	ug/Kg	1
1,3-Dichlorobenzene	ND	U	21.1	313	ug/Kg	1
1,4-Dichlorobenzene	ND	U	22.1	313	ug/Kg	1
1,2-Dichlorobenzene	ND	U	15.6	313	ug/Kg	1
2-Methylphenol	ND	U	17.3	313	ug/Kg	1
3 and/or 4-Methylphenol	ND	U	20.3	313	ug/Kg	1
Bis(2-Chloroisopropyl)ether	ND	U	27.3	313	ug/Kg	1
n-Nitrosodi-n-propylamine	ND	U	89.6	313	ug/Kg	1
Hexachloroethane	ND	U	18.0	313	ug/Kg	1
Nitrobenzene	ND	U	18.0	313	ug/Kg	1
Isophorone	ND	U	14.2	313	ug/Kg	1
2-Nitrophenol	ND	U	15.0	313	ug/Kg	1
2,4-Dimethylphenol	ND	U	22.9	313	ug/Kg	1
Bis(2-Chloroethoxy)methane	ND	U	14.1	313	ug/Kg	1
2,4-Dichlorophenol	ND	U	18.1	313	ug/Kg	1
1,2,4-Trichlorobenzene	ND	U	27.6	313	ug/Kg	1
Naphthalene	ND	U	27.0	313	ug/Kg	1
4-Chloroaniline	ND	U	25.0	313	ug/Kg	1
Hexachlorobutadiene	ND	U	18.7	313	ug/Kg	1
4-Chloro-3-methylphenol	ND	U	15.6	313	ug/Kg	1
2-Methylnaphthalene	ND	U	25.3	313	ug/Kg	1
Hexachlorocyclopentadiene	ND	U	94.7	626	ug/Kg	1
2,4,5-Trichlorophenol	ND	U	20.9	313	ug/Kg	1
2,4,6-Trichlorophenol	ND	U	21.2	313	ug/Kg	1
2-Chloronaphthalene	ND	U	18.4	313	ug/Kg	1
2-Nitroaniline	ND	U	20.6	313	ug/Kg	1
3-Nitroaniline	ND	U	14.1	1570	ug/Kg	1
Dimethyl phthalate	ND	U	24.0	313	ug/Kg	1
2,6-Dinitrotoluene	ND	U	22.4	313	ug/Kg	1
Acenaphthene	ND	U	14.2	313	ug/Kg	1
2,4-Dinitrophenol	ND	U	29.0	1570	ug/Kg	1
4-Nitrophenol	ND	U	30.8	1570	ug/Kg	1
Dibenzofuran	ND	U	24.5	313	ug/Kg	1
2,4-Dinitrotoluene	ND	U	15.8	313	ug/Kg	1
Fluorene	ND	U	16.6	313	ug/Kg	1
Diethyl phthalate	ND	U	16.9	313	ug/Kg	1
4-Chlorophenyl phenyl ether	ND	U	33.4	313	ug/Kg	1
4-Nitroaniline	ND	U	18.0	1570	ug/Kg	1
4,6-Dinitro-2-methylphenol	ND	U	14.7	1570	ug/Kg	1

Method Blank

Blank ID: MB for HBN 29949 [XXX/3128]

Matrix: Soil-Solid as dry weight

Blank Lab ID: 92198

QC for Samples:

31203112001, 31203112002, 31203112004, 31203112008, 31203112009, 31203112010

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Diphenylamine	ND	U	14.1	313	ug/Kg	1
4-Bromophenyl phenyl ether	ND	U	20.6	313	ug/Kg	1
Hexachlorobenzene	ND	U	29.6	1570	ug/Kg	1
Pentachlorophenol	ND	U	25.0	1570	ug/Kg	1
Phenanthrene	ND	U	20.6	313	ug/Kg	1
Anthracene	ND	U	13.9	313	ug/Kg	1
Di-n-butyl phthalate	ND	U	14.8	313	ug/Kg	1
Fluoranthene	ND	U	29.4	313	ug/Kg	1
Pyrene	ND	U	13.2	313	ug/Kg	1
Butyl benzyl phthalate	ND	U	27.2	313	ug/Kg	1
Benzo(a)anthracene	ND	U	17.2	313	ug/Kg	1
3,3'-Dichlorobenzidine	ND	U	15.0	626	ug/Kg	1
Chrysene	ND	U	36.4	313	ug/Kg	1
Bis(2-Ethylhexyl)phthalate	ND	U	15.0	313	ug/Kg	1
Di-n-octyl phthalate	ND	U	17.3	313	ug/Kg	1
Benzo(b)fluoranthene	ND	U	18.0	313	ug/Kg	1
Benzo(k)fluoranthene	ND	U	37.5	313	ug/Kg	1
Benzo(a)pyrene	ND	U	17.7	313	ug/Kg	1
Indeno(1,2,3-cd)pyrene	ND	U	24.4	313	ug/Kg	1
Dibenz(a,h)anthracene	ND	U	14.1	313	ug/Kg	1
Benzo(g,h,i)perylene	ND	U	49.8	313	ug/Kg	1
Benzoic acid	ND	U	6.94	1570	ug/Kg	1
Acenaphthylene	ND	U	13.2	313	ug/Kg	1
Surrogates						
2-Fluorophenol	73.0			42.0-123	%	1
Phenol-d6	78.0			48.0-125	%	1
Nitrobenzene-d5	75.0			46.0-117	%	1
2-Fluorobiphenyl	82.0			48.0-123	%	1
2,4,6-Tribromophenol	72.0			41.0-129	%	1
Terphenyl-d14	83.0			44.0-140	%	1

Batch Information

Analytical Batch: XMS1687

Prep Batch: XXX3128

Analytical Method: SW-846 8270D

Prep Method: SW-846 3541

Instrument: MSD10

Prep Date/Time: 10/1/2012 10:14:19AM

Analyst: CMP

Prep Initial Wt./Vol.: 32 g

Prep Extract Vol: 10 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 29949 [XXX/3128]

Blank Spike Lab ID: 92199

Date Analyzed: 10/02/2012 12:01

Matrix: Soil-Solid as dry weight

QC for Samples: 31203112001, 31203112002, 31203112004, 31203112008, 31203112009, 31203112010

Results by SW-846 8270D

Parameter	Blank Spike (ug/Kg)			CL
	Spike	Result	Rec (%)	
Phenol	3130	2620	84	67.0-112
Bis(2-Chloroethyl)ether	3130	2610	83	63.0-116
2-Chlorophenol	3130	2680	86	67.0-109
1,3-Dichlorobenzene	3130	2650	85	66.0-109
1,4-Dichlorobenzene	3130	2660	85	65.0-112
1,2-Dichlorobenzene	3130	2710	87	67.0-110
2-Methylphenol	3130	2770	89	68.0-110
3 and/or 4-Methylphenol	6250	5590	89	66.0-113
Bis(2-Chloroisopropyl)ether	3130	2500	80	64.0-114
n-Nitrosodi-n-propylamine	3130	2560	82	66.0-111
Hexachloroethane	3130	2640	84	64.0-110
Nitrobenzene	3130	2700	86	69.0-112
Isophorone	3130	2860	91	69.0-108
2-Nitrophenol	3130	2770	89	65.0-117
2,4-Dimethylphenol	3130	2570	82	69.0-112
Bis(2-Chloroethoxy)methane	3130	2870	92	68.0-112
Benzoic acid	3130	787	25	0.00-203
2,4-Dichlorophenol	3130	2830	90	67.0-118
1,2,4-Trichlorobenzene	3130	2950	94	65.0-114
Naphthalene	3130	2740	88	70.0-111
4-Chloroaniline	3130	2130	68	41.0-93.0
Hexachlorobutadiene	3130	2760	88	63.0-124
4-Chloro-3-methylphenol	3130	2800	89	70.0-114
2-Methylnaphthalene	3130	2870	92	69.0-110
Hexachlorocyclopentadiene	3130	2830	91	0.00-1080
2,4,5-Trichlorophenol	3130	2950	94	66.0-119
2,4,6-Trichlorophenol	3130	2690	86	67.0-119
2-Chloronaphthalene	3130	2610	84	57.0-96.0
2-Nitroaniline	3130	2370	76	61.0-100
3-Nitroaniline	3130	2430	78	48.0-103
Dimethyl phthalate	3130	2800	90	69.0-118
2,6-Dinitrotoluene	3130	2840	91	69.0-122
Acenaphthene	3130	2790	89	68.0-111
2,4-Dinitrophenol	3130	1860	59	12.0-125

Blank Spike Summary

Blank Spike ID: LCS for HBN 29949 [XXX/3128]

Blank Spike Lab ID: 92199

Date Analyzed: 10/02/2012 12:01

Matrix: Soil-Solid as dry weight

QC for Samples: 31203112001, 31203112002, 31203112004, 31203112008, 31203112009, 31203112010

Results by SW-846 8270D

Blank Spike (ug/Kg)

Parameter	Spike	Result	Rec (%)	CL
4-Nitrophenol	3130	2770	88	45.0-120
Dibenzofuran	3130	2840	91	71.0-114
2,4-Dinitrotoluene	3130	2850	91	68.0-123
Fluorene	3130	2840	91	66.0-116
Diethyl phthalate	3130	2810	90	68.0-114
4-Chlorophenyl phenyl ether	3130	2860	91	66.0-120
4-Nitroaniline	3130	2530	81	66.0-114
4,6-Dinitro-2-methylphenol	3130	2930	94	24.0-123
Diphenylamine	3130	2920	94	60.0-118
4-Bromophenyl phenyl ether	3130	2880	92	63.0-118
Hexachlorobenzene	3130	2840	91	62.0-112
Pentachlorophenol	3130	2120	68	34.0-125
Phenanthrene	3130	2980	95	60.0-122
Anthracene	3130	2960	95	63.0-113
Di-n-butyl phthalate	3130	3060	98	64.0-121
Fluoranthene	3130	3020	97	64.0-118
Pyrene	3130	2890	93	67.0-116
Butyl benzyl phthalate	3130	2850	91	68.0-118
Benzo(a)anthracene	3130	2860	92	65.0-118
3,3'-Dichlorobenzidine	3130	2740	88	54.0-118
Chrysene	3130	2970	95	66.0-118
Bis(2-Ethylhexyl)phthalate	3130	2890	92	67.0-123
Di-n-octyl phthalate	3130	2900	93	62.0-131
Benzo(b)fluoranthene	3130	2500	80	63.0-119
Benzo(k)fluoranthene	3130	2920	94	69.0-118
Benzo(a)pyrene	3130	2870	92	69.0-113
Indeno(1,2,3-cd)pyrene	3130	3020	97	64.0-123
Dibenz(a,h)anthracene	3130	2980	95	64.0-123
Benzo(g,h,i)perylene	3130	3110	99	57.0-128
Acenaphthylene	3130	2910	93	72.0-115
Surrogates				
2-Fluorophenol			81	42.0-123
Phenol-d6			89	48.0-125

Blank Spike Summary

Blank Spike ID: LCS for HBN 29949 [XXX/3128]

Blank Spike Lab ID: 92199

Date Analyzed: 10/02/2012 12:01

Matrix: Soil-Solid as dry weight

QC for Samples: 31203112001, 31203112002, 31203112004, 31203112008, 31203112009, 31203112010

Results by SW-846 8270D

Parameter	Blank Spike (%)			CL
	Spike	Result	Rec (%)	
Nitrobenzene-d5		85		46.0-117
2-Fluorobiphenyl		96		48.0-123
2,4,6-Tribromophenol		90		41.0-129
Terphenyl-d14		91		44.0-140

Batch Information

Analytical Batch: XMS1687

Analytical Method: SW-846 8270D

Instrument: MSD10

Analyst: CMP

Prep Batch: XXX3128

Prep Method: SW-846 3541

Prep Date/Time: 10/01/2012 10:14

Spike Init Wt./Vol.: 32 g Extract Vol: 10 mL

Dupe Init Wt./Vol.: Extract Vol:

Batch Summary

Analytical Method: SW-846 8270D

Prep Method: SW-846 3541

Prep Batch: XXX3161

Prep Date: 10/08/2012 09:48

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Analysis Date</u>	<u>Analytical Batch</u>	<u>Instrument</u>	<u>Analyst</u>
MB for HBN 30231 [XXX/3161]	93321	10/08/2012 15:05	XMS1695	MSD10	CMP
LCS for HBN 30231 [XXX/3161]	93322	10/08/2012 15:27	XMS1695	MSD10	CMP
USTTE/SW-SS07(93032MS)	93323	10/08/2012 16:13	XMS1695	MSD10	CMP
USTTE/SW-SS07(93032MSD)	93324	10/08/2012 16:36	XMS1695	MSD10	CMP
GAS-E (5ft)	31203112003	10/08/2012 18:52	XMS1695	MSD10	CMP

Method Blank

Blank ID: MB for HBN 30231 [XXX/3161]

Matrix: Soil-Solid as dry weight

Blank Lab ID: 93321

QC for Samples:

31203112003

Results by SW-846 8270D

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
Phenol	ND	U	40.4	313	ug/Kg	1
Bis(2-Chloroethyl)ether	ND	U	45.3	313	ug/Kg	1
2-Chlorophenol	ND	U	40.0	313	ug/Kg	1
1,3-Dichlorobenzene	ND	U	34.6	313	ug/Kg	1
1,4-Dichlorobenzene	ND	U	37.1	313	ug/Kg	1
1,2-Dichlorobenzene	ND	U	33.0	313	ug/Kg	1
2-Methylphenol	ND	U	49.3	313	ug/Kg	1
3 and/or 4-Methylphenol	ND	U	44.2	313	ug/Kg	1
Bis(2-Chloroisopropyl)ether	ND	U	27.9	313	ug/Kg	1
n-Nitrosodi-n-propylamine	ND	U	49.6	313	ug/Kg	1
Hexachloroethane	ND	U	31.7	313	ug/Kg	1
Nitrobenzene	ND	U	45.6	313	ug/Kg	1
Isophorone	ND	U	38.7	313	ug/Kg	1
2-Nitrophenol	ND	U	55.6	313	ug/Kg	1
2,4-Dimethylphenol	ND	U	69.0	313	ug/Kg	1
Bis(2-Chloroethoxy)methane	ND	U	49.3	313	ug/Kg	1
2,4-Dichlorophenol	ND	U	35.6	313	ug/Kg	1
1,2,4-Trichlorobenzene	ND	U	37.5	313	ug/Kg	1
Naphthalene	ND	U	46.7	313	ug/Kg	1
4-Chloroaniline	ND	U	44.5	313	ug/Kg	1
Hexachlorobutadiene	ND	U	36.0	313	ug/Kg	1
4-Chloro-3-methylphenol	ND	U	41.3	313	ug/Kg	1
2-Methylnaphthalene	ND	U	39.1	313	ug/Kg	1
Hexachlorocyclopentadiene	ND	U	28.1	626	ug/Kg	1
2,4,5-Trichlorophenol	ND	U	71.8	313	ug/Kg	1
2,4,6-Trichlorophenol	ND	U	53.0	313	ug/Kg	1
2-Chloronaphthalene	ND	U	61.6	313	ug/Kg	1
2-Nitroaniline	ND	U	58.8	313	ug/Kg	1
3-Nitroaniline	ND	U	35.3	1570	ug/Kg	1
Dimethyl phthalate	ND	U	41.5	313	ug/Kg	1
2,6-Dinitrotoluene	ND	U	43.4	313	ug/Kg	1
Acenaphthene	ND	U	40.4	313	ug/Kg	1
2,4-Dinitrophenol	ND	U	29.0	1570	ug/Kg	1
4-Nitrophenol	ND	U	30.8	1570	ug/Kg	1
Dibenzofuran	ND	U	45.1	313	ug/Kg	1
2,4-Dinitrotoluene	ND	U	44.8	313	ug/Kg	1
Fluorene	ND	U	43.2	313	ug/Kg	1
Diethyl phthalate	ND	U	46.2	313	ug/Kg	1
4-Chlorophenyl phenyl ether	ND	U	40.4	313	ug/Kg	1
4-Nitroaniline	ND	U	52.0	1570	ug/Kg	1
4,6-Dinitro-2-methylphenol	ND	U	14.7	1570	ug/Kg	1

Method Blank

Blank ID: MB for HBN 30231 [XXX/3161]

Matrix: Soil-Solid as dry weight

Blank Lab ID: 93321

QC for Samples:

31203112003

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Diphenylamine	ND	U	40.1	313	ug/Kg	1
4-Bromophenyl phenyl ether	ND	U	46.6	313	ug/Kg	1
Hexachlorobenzene	ND	U	61.3	1570	ug/Kg	1
Pentachlorophenol	ND	U	99.5	1570	ug/Kg	1
Phenanthrene	ND	U	33.2	313	ug/Kg	1
Anthracene	ND	U	41.6	313	ug/Kg	1
Di-n-butyl phthalate	ND	U	38.4	313	ug/Kg	1
Fluoranthene	ND	U	40.8	313	ug/Kg	1
Pyrene	ND	U	42.2	313	ug/Kg	1
Butyl benzyl phthalate	ND	U	40.6	313	ug/Kg	1
Benzo(a)anthracene	ND	U	41.1	313	ug/Kg	1
3,3'-Dichlorobenzidine	ND	U	43.0	626	ug/Kg	1
Chrysene	ND	U	35.3	313	ug/Kg	1
Bis(2-Ethylhexyl)phthalate	ND	U	49.6	313	ug/Kg	1
Di-n-octyl phthalate	ND	U	44.5	313	ug/Kg	1
Benzo(b)fluoranthene	ND	U	47.5	313	ug/Kg	1
Benzo(k)fluoranthene	ND	U	48.9	313	ug/Kg	1
Benzo(a)pyrene	ND	U	48.7	313	ug/Kg	1
Indeno(1,2,3-cd)pyrene	ND	U	46.0	313	ug/Kg	1
Dibenz(a,h)anthracene	ND	U	53.9	313	ug/Kg	1
Benzo(g,h,i)perylene	ND	U	40.9	313	ug/Kg	1
Benzoic acid	ND	U	90.8	1570	ug/Kg	1
Acenaphthylene	ND	U	47.5	313	ug/Kg	1
Surrogates						
2-Fluorophenol	80.0			42.0-123	%	1
Phenol-d6	85.0			48.0-125	%	1
Nitrobenzene-d5	84.0			46.0-117	%	1
2-Fluorobiphenyl	92.0			48.0-123	%	1
2,4,6-Tribromophenol	75.0			41.0-129	%	1
Terphenyl-d14	90.0			44.0-140	%	1

Batch Information

Analytical Batch: XMS1695

Prep Batch: XXX3161

Analytical Method: SW-846 8270D

Prep Method: SW-846 3541

Instrument: MSD10

Prep Date/Time: 10/8/2012 9:48:17AM

Analyst: CMP

Prep Initial Wt./Vol.: 32 g

Prep Extract Vol: 10 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 30231 [XXX/3161]

Blank Spike Lab ID: 93322

Date Analyzed: 10/08/2012 15:27

Matrix: Soil-Solid as dry weight

QC for Samples: 31203112003

Results by SW-846 8270D

Parameter	Blank Spike (ug/Kg)			CL
	Spike	Result	Rec (%)	
Phenol	3130	3300	105	67.0-112
Bis(2-Chloroethyl)ether	3130	3060	98	63.0-116
2-Chlorophenol	3130	3120	100	67.0-109
1,3-Dichlorobenzene	3130	3130	100	66.0-109
1,4-Dichlorobenzene	3130	3160	101	65.0-112
1,2-Dichlorobenzene	3130	3180	102	67.0-110
2-Methylphenol	3130	3270	105	68.0-110
3 and/or 4-Methylphenol	6250	6580	105	66.0-113
Bis(2-Chloroisopropyl)ether	3130	2980	95	64.0-114
n-Nitrosodi-n-propylamine	3130	3010	96	66.0-111
Hexachloroethane	3130	3100	99	64.0-110
Nitrobenzene	3130	3110	99	69.0-112
Isophorone	3130	3230	103	69.0-108
2-Nitrophenol	3130	3210	103	65.0-117
2,4-Dimethylphenol	3130	2990	96	69.0-112
Bis(2-Chloroethoxy)methane	3130	3300	106	68.0-112
Benzoic acid	3130	2130	68	0.00-203
2,4-Dichlorophenol	3130	3300	106	67.0-118
1,2,4-Trichlorobenzene	3130	3290	105	65.0-114
Naphthalene	3130	3140	101	70.0-111
4-Chloroaniline	3130	2640	85	41.0-93.0
Hexachlorobutadiene	3130	3230	103	63.0-124
4-Chloro-3-methylphenol	3130	3220	103	70.0-114
2-Methylnaphthalene	3130	3300	106	69.0-110
Hexachlorocyclopentadiene	3130	3220	103	0.00-1080
2,4,5-Trichlorophenol	3130	3280	105	66.0-119
2,4,6-Trichlorophenol	3130	2980	95	67.0-119
2-Chloronaphthalene	3130	3010	96	57.0-96.0
2-Nitroaniline	3130	2750	88	61.0-100
3-Nitroaniline	3130	2830	90	48.0-103
Dimethyl phthalate	3130	3200	102	69.0-118
2,6-Dinitrotoluene	3130	3230	103	69.0-122
Acenaphthene	3130	3190	102	68.0-111
2,4-Dinitrophenol	3130	2350	75	12.0-125

Blank Spike Summary

Blank Spike ID: LCS for HBN 30231 [XXX/3161]

Blank Spike Lab ID: 93322

Date Analyzed: 10/08/2012 15:27

Matrix: Soil-Solid as dry weight

QC for Samples: 31203112003

Results by SW-846 8270D

Parameter	Blank Spike (ug/Kg)			CL
	Spike	Result	Rec (%)	
4-Nitrophenol	3130	3090	99	45.0-120
Dibenzofuran	3130	3280	105	71.0-114
2,4-Dinitrotoluene	3130	3360	107	68.0-123
Fluorene	3130	3310	106	66.0-116
Diethyl phthalate	3130	3220	103	68.0-114
4-Chlorophenyl phenyl ether	3130	3260	104	66.0-120
4-Nitroaniline	3130	2950	94	66.0-114
4,6-Dinitro-2-methylphenol	3130	3510	112	24.0-123
Diphenylamine	3130	3370	108	60.0-118
4-Bromophenyl phenyl ether	3130	3380	108	63.0-118
Hexachlorobenzene	3130	3280	105	62.0-112
Pentachlorophenol	3130	1490	48	34.0-125
Phenanthrene	3130	3450	110	60.0-122
Anthracene	3130	3390	109	63.0-113
Di-n-butyl phthalate	3130	3400	109	64.0-121
Fluoranthene	3130	3390	109	64.0-118
Pyrene	3130	3280	105	67.0-116
Butyl benzyl phthalate	3130	3210	103	68.0-118
Benzo(a)anthracene	3130	3260	104	65.0-118
3,3'-Dichlorobenzidine	3130	3220	103	54.0-118
Chrysene	3130	3320	106	66.0-118
Bis(2-Ethylhexyl)phthalate	3130	3240	104	67.0-123
Di-n-octyl phthalate	3130	3330	107	62.0-131
Benzo(b)fluoranthene	3130	2920	94	63.0-119
Benzo(k)fluoranthene	3130	3380	108	69.0-118
Benzo(a)pyrene	3130	3300	106	69.0-113
Indeno(1,2,3-cd)pyrene	3130	3550	114	64.0-123
Dibenz(a,h)anthracene	3130	3500	112	64.0-123
Benzo(g,h,i)perylene	3130	3620	116	57.0-128
Acenaphthylene	3130	3310	106	72.0-115
Surrogates				
2-Fluorophenol			81	42.0-123
Phenol-d6			88	48.0-125

Blank Spike Summary

Blank Spike ID: LCS for HBN 30231 [XXX/3161]

Blank Spike Lab ID: 93322

Date Analyzed: 10/08/2012 15:27

Matrix: Soil-Solid as dry weight

QC for Samples: 31203112003

Results by SW-846 8270D

Parameter	Blank Spike (%)			CL
	Spike	Result	Rec (%)	
Nitrobenzene-d5		84		46.0-117
2-Fluorobiphenyl		92		48.0-123
2,4,6-Tribromophenol		83		41.0-129
Terphenyl-d14		86		44.0-140

Batch information

Analytical Batch: XMS1695

Analytical Method: SW-846 8270D

Instrument: MSD10

Analyst: CMP

Prep Batch: XXX3161

Prep Method: SW-846 3541

Prep Date/Time: 10/08/2012 09:48

Spike Init Wt./Vol.: 32 g Extract Vol: 10 mL

Dupe Init Wt./Vol.: Extract Vol:

Batch Summary

Analytical Method: MADEP EPH

Prep Method: SW-846 3541/8015 EPH

Prep Batch: XXX3123

Prep Date: 09/28/2012 11:49

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Analysis Date</u>	<u>Analytical Batch</u>	<u>Instrument</u>	<u>Analyst</u>
MB for HBN 29531 [XXX/3123]	91977	10/01/2012 22:26	XGC2573	GC6	DTF
MB for HBN 29531 [XXX/3123]	91977	10/01/2012 22:54	XGC2573	GC6	DTF
LCS for HBN 29531 [XXX/3123]	91978	10/01/2012 23:22	XGC2573	GC6	DTF
LCS for HBN 29531 [XXX/3123]	91978	10/01/2012 23:50	XGC2573	GC6	DTF
LCSD for HBN 29531 [XXX/3123]	91979	10/02/2012 00:18	XGC2573	GC6	DTF
LCSD for HBN 29531 [XXX/3123]	91979	10/02/2012 00:46	XGC2573	GC6	DTF
GAS-NW (5-6ft)	31203112001	10/02/2012 17:06	XGC2580	GC6	DTF
GAS-NW (5-6ft)	31203112001	10/02/2012 17:34	XGC2580	GC6	DTF
GAS-NE (5-6ft)	31203112002	10/02/2012 18:03	XGC2580	GC6	DTF
GAS-NE (5-6ft)	31203112002	10/02/2012 18:32	XGC2580	GC6	DTF
GAS-E (5ft)	31203112003	10/02/2012 19:00	XGC2580	GC6	DTF
GAS-E (5ft)	31203112003	10/02/2012 19:29	XGC2580	GC6	DTF
GAS-W (5ft)	31203112004	10/02/2012 19:57	XGC2580	GC6	DTF
GAS-W (5ft)	31203112004	10/02/2012 20:26	XGC2580	GC6	DTF
Drainage-N (5ft)	31203112008	10/02/2012 20:54	XGC2580	GC6	DTF
Drainage-N (5ft)	31203112008	10/02/2012 21:22	XGC2580	GC6	DTF
Drainage-S (5ft)	31203112009	10/02/2012 21:50	XGC2580	GC6	DTF
Drainage-S (5ft)	31203112009	10/02/2012 22:19	XGC2580	GC6	DTF
Drainage-W (5ft)	31203112010	10/02/2012 22:47	XGC2580	GC6	DTF
Drainage-W (5ft)	31203112010	10/02/2012 23:15	XGC2580	GC6	DTF

Method Blank

Blank ID: MB for HBN 29531 [XXX/3123]

Matrix: Soil-Solid as dry weight

Blank Lab ID: 91977

QC for Samples:

31203112001, 31203112002, 31203112003, 31203112004, 31203112008, 31203112009, 31203112010

Results by MADEP EPH

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
C9-C18 Aliphatics	ND	U	5.80	5.80	mg/kg	1
C11-C22 Aromatics	ND	U	13.0	13.0	mg/kg	1
C19-C36 Aliphatics	ND	U	6.70	6.70	mg/kg	1
Surrogates						
o-Terphenyl	83.0			40.0-140	%	1
n-Tricosane	111			40.0-140	%	1
2-Bromonaphthalene	87.2			40.0-140	%	1
2-Fluorobiphenyl	85.0			40.0-140	%	1

Batch Information

Analytical Batch: XGC2573

Prep Batch: XXX3123

Analytical Method: MADEP EPH

Prep Method: SW-846 3541/8015 EPH

Instrument: GC6

Prep Date/Time: 9/28/2012 11:49:12AM

Analyst: DTF

Prep Initial Wt./Vol.: 12 g

Prep Extract Vol: 10 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 29531 [XXX/3123]
 Blank Spike Lab ID: 91978
 Date Analyzed: 10/01/2012 23:50

Spike Duplicate ID: LCSD for HBN 29531 [XXX/3123]
 Spike Duplicate Lab ID: 91979
 Date Analyzed: 10/02/2012 00:46
 Matrix: Soil-Solid as dry weight

QC for Samples: 31203112001, 31203112002, 31203112003, 31203112004, 31203112008, 31203112009, 31203112010

Results by MADEP EPH

Parameter	Blank Spike (mg/kg)			Spike Duplicate (mg/kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
C11-C22 Aromatics	41.7	42.0	101	41.7	43.6	105	40.0-140	3.7	25.00
C9-C18 Aliphatics	50.0	40.5	81	50.0	40.7	81	40.0-140	0.49	25.00
C19-C36 Aliphatics	25.0	22.8	91	25.0	23.7	95	40.0-140	3.9	25.00
Surrogates									
o-Terphenyl			104			103	40.0-140		
2-Bromonaphthalene			92.7			90.5	40.0-140		
2-Fluorobiphenyl			86			84	40.0-140		
n-Tricosane			133			134	40.0-140		

Batch Information

Analytical Batch: XGC2573
 Analytical Method: MADEP EPH
 Instrument: GC6
 Analyst: DTF

Prep Batch: XXX3123
 Prep Method: SW-846 3541/8015 EPH
 Prep Date/Time: 09/28/2012 11:49
 Spike Init Wt./Vol.: 12 g Extract Vol: 10 mL
 Dupe Init Wt./Vol.: 12 g Extract Vol: 10 mL

Batch Summary

Analytical Method: SW-846 8015C DRO

Prep Method: SW-846 3541

Prep Batch: XXX3129

Prep Date: 10/01/2012 10:18

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Analysis Date</u>	<u>Analytical Batch</u>	<u>Instrument</u>	<u>Analyst</u>
MB for HBN 29950 [XXX/3129]	92202	10/02/2012 16:38	XGC2577	GC6	DTF
LCS for HBN 29950 [XXX/3129]	92203	10/02/2012 17:06	XGC2577	GC6	DTF
N-UST-E (6ft)	31203112005	10/02/2012 21:22	XGC2577	GC6	DTF
N-UST-W (6ft)	31203112006	10/02/2012 21:50	XGC2577	GC6	DTF
S-UST (5.5ft)	31203112007	10/02/2012 22:19	XGC2577	GC6	DTF
Drainage Character.	31203112011	10/02/2012 22:47	XGC2577	GC6	DTF
SPC-1(91948MS)	92204	10/02/2012 23:43	XGC2577	GC6	DTF
SPC-1(91948MSD)	92205	10/03/2012 00:12	XGC2577	GC6	DTF

Method Blank

Blank ID: MB for HBN 29950 [XXX/3129]

Matrix: Soil-Solid as dry weight

Blank Lab ID: 92202

QC for Samples:

31203112005, 31203112006, 31203112007, 31203112011

Results by SW-846 8015C DRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
Diesel Range Organics (DRO)	ND	U	6.25	6.25	mg/kg	1
Surrogates						
o-Terphenyl	99.7			40.0-140	%	1

Batch Information

Analytical Batch: XGC2577

Prep Batch: XXX3129

Analytical Method: SW-846 8015C DRO

Prep Method: SW-846 3541

Instrument: GC6

Prep Date/Time: 10/1/2012 10:18:40AM

Analyst: DTF

Prep Initial Wt./Vol.: 32 g

Prep Extract Vol: 10 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 29950 [XXX/3129]

Blank Spike Lab ID: 92203

Date Analyzed: 10/02/2012 17:06

Matrix: Soil-Solid as dry weight

QC for Samples: 31203112005, 31203112006, 31203112007, 31203112011

Results by SW-846 8015C DRO

Parameter	Blank Spike (mg/kg)			CL
	Spike	Result	Rec (%)	
Diesel Range Organics (DRO)	62.5	66.8	107	55.0-137
Surrogates				
o-Terphenyl		115		40.0-140

Batch Information

Analytical Batch: XGC2577

Analytical Method: SW-846 8015C DRO

Instrument: GC6

Analyst: DTF

Prep Batch: XXX3129

Prep Method: SW-846 3541

Prep Date/Time: 10/01/2012 10:18

Spike Init Wt./Vol.: 32 g Extract Vol: 10 mL

Dupe Init Wt./Vol.: Extract Vol:



CHAIN OF CUSTODY

SGS ANALYTICAL PERSPECTIVES
5500 Business Drive
Wilmington, NC 28405
+1 910 350 1903
WWW.SGS.COM

CLIENT: CATLIN / NCOOT		PHONE NO: 910 1452-5861	PAGE 1
CONTACT: Ben Ashbe @ CATLIN		SITE / PWSID (PWS): 34416.1.1	OF 2
PROJECT: NCOOT Former Stickland		R-2303B	
REPORTS TO: Ben Ashbe		Cumberland City	
EMAIL: ben-ashbe@catlinusa.com		QUOTE # NCOOT	
INVOICE TO: NCOOT		P.O. NUMBER	

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	REMARKS
	GAS-NW(5-6')	9-25-12	1550	SOIL	
	GAS-NE(5-6')	↓	1540		
	GAS-E(5')	9-26-12	900		
	GAS-W(5')	↓	905		
	N-VST-E(6')	↓	830		
	N-VST-W(6')	↓	835		
	S-VST(5.5')	↓	840		
	Drainage-N(5')	↓	1500		
	Drainage-S(5')	↓	1505		
	Drainage-W(5')	↓	1510		

COLLECTED/RELINQUISHED BY: (1) Ben Ashbe	DATE 9-27-12	TIME 1424	RECEIVED BY: Sulema Hagg
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:

Received For Laboratory By: Sulema Hagg	Date 9/27/12	Time 1525
--------------------------------------------	-----------------	--------------

SGS Reference #: 31203112	REPORT LEVEL: <input type="checkbox"/> Level I <input checked="" type="checkbox"/> Level II <input type="checkbox"/> Level IV	REQUESTED TURNAROUND TIME: <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush
SAMPLE TYPE C= COMP G= GRAB	SPECIAL DELIVERABLES: State of Origin: NC	<input type="checkbox"/> DoD <input checked="" type="checkbox"/> EDD: Summary <input type="checkbox"/> Trust Fund Other:
# CONTAINERS	SPECIAL INSTRUCTIONS:	
7	Shipping Carrier: Shipping Ticket No:	
3	Coc Seal: INTACT BROKEN ABSENT	
7	Sample Receipt Temp: C: 5.8°C	
3	Notes:	

CLIENT: CATLIN/NC DOT CONTACT: Ben Ashbee CATLIN PHONE NO: 910 452-5864 PROJECT: NCDOT Farmer Strickland SITE / PMSID (YES): 34416.1.1 REPORTS TO: Ben Ashbee R-23036 EMAIL: ben.ashbee@catlinusa.com Cumberland INVOICE TO: NCDOT QUOTE # P.O. NUMBER NCDOT		SGS Reference #: 320312 SAMPLE TYPE: C- COMP G- GRAB # CONTAINERS: 3 ANALYSES REQUESTED: TPH, Oils & Grease, Metals PREPARED FOR: NCDOT	PAGE 2 OF 2		
LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	REMARKS
	Drainage Character.	9-26-12	1450	Soil	Hot
<div style="border: 2px solid black; width: 80%; margin: 0 auto; padding: 10px;"> [This area contains a large, illegible signature or scribble.] </div>					
COLLECTED/RELINQUISHED BY: (1)	DATE	TIME	RECEIVED BY:	REPORT LEVEL:	
Ben Ashbee	9/27/12	1444	Bulawa Hags	<input type="checkbox"/> Level I <input checked="" type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> Level IV	<input type="checkbox"/> Rush <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Trust Fund
Relinquished By: (2)	Date	Time	Received By:	SPECIAL DELIVERABLES: State of Origin:	
				<input type="checkbox"/> DoD <input type="checkbox"/> EDD <input type="checkbox"/> Other:	
Relinquished By: (3)	Date	Time	Received By:	SPECIAL INSTRUCTIONS:	
Received For Laboratory By:	Date	Time	CoC Seal: INTACT	BROKEN	ABSENT
Paul Hags	9/27/12	1525			
			Sample Receipt Temp: C	58°C	
			Shipping Carrier:	Notes:	
			Shipping Ticket No:		

SGS North America Inc.

Sample Receipt Checklist (SRC)

Client: NCDOT-Catlin

Work Order No.: 31203112

- 1. Shipped
 Hand Delivered
- 2. COC Present on Receipt
 No COC
 Additional Transmittal Forms
- 3. Custody Tape on Container
 No Custody Tape
- 4. Samples Intact
 Samples Broken / Leaking
- 5. Chilled on Receipt Actual Temp.(s) in °C: 5.8
 Ambient on Receipt
 Walk-in on Ice; Coming down to temp.
 Received Outside of Temperature Specifications
- 6. Sufficient Sample Submitted
 Insufficient Sample Submitted
- 7. Chlorine absent
 HNO3 < 2
 HCL < 2
 Additional Preservatives verified (see notes)
- 8. Received Within Holding Time
 Not Received Within Holding Time
- 9. No Discrepancies Noted
 Discrepancies Noted
 NCDENR notified of Discrepancies*
- 10. No Headspace present in VOC vials
 Headspace present in VOC vials >6mm

Notes: _____

Comments: GAS-W (5ft) on COC, jar label says (6ft).

Inspected and Logged in by: JJ
Date: Thu-9/27/12 00:00

APPENDIX F
WELL ABANDONMENT RECORDS



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources - Division of Water Quality

WELL CONTRACTOR CERTIFICATION #: 2161A

CATLIN PROJECT NO.: 212092

1. WELL CONTRACTOR:

Steven V. Hudson
Well Contractor (Individual) Name

CATLIN Engineers and Scientists
Well Contractor Company Name

220 Old Dairy Road
Street Address

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): MW-1

STATE WELL PERMIT # (if applicable): N/A

COUNTY WELL PERMIT # (if applicable): N/A

DWQ or OTHER PERMIT # (if applicable): N.A.

WELL USE (Check Applicable Use): Monitoring Residential
 Municipal/Public Industrial/Commercial Agricultural
 Recovery Injection Irrigation
 Other (list use): _____

3. WELL LOCATION:

COUNTY: Cumberland QUADRANGLE NAME:
 NEAREST TOWN: Stedman
9007 Clinton Road, 28391
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING

Slope Valley Flat Ridge Other: _____
(Check appropriate setting)

LATITUDE: 35.002077231 DD

LONGITUDE: 78.654522243 DD

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) 0-36802

NAME OF FACILITY: Former Strickland Marathon

STREET ADDRESS: 9007 Clinton Road

Stedman North Carolina 28391
City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME: Mr. Terry Fox, L.G.

STREET ADDRESS: Century Center Complex-Building B, 1020 Birch Ridge Dr.

5. WELL DETAILS:

a. Total Depth: 15 ft. Diameter: 2 in.
 b. Water Level (Below Measuring Point): 15 ft.
 Measuring point is _____ ft. above land surface

6. CASING:

	Length	Diameter
a. Casing Depth (if known):	<u>5</u> ft.	<u>2</u> in.
b. Casing Removed:	<u>0</u> ft.	<u>2</u> in.

7. DISINFECTION: N/A

(Amount of 65% to 75% calcium hypochlorite used)

8. SEALING MATERIAL:

<u>Neat Cement</u>		<u>Sand Cement</u>	
Cement _____ lb.	Water _____ gal.	Cement _____ lb.	Water _____ gal.

Bentonite

Bentonite 25 lb.

Type: Slurry Pellets
 Water 2 gal.

Other

Type material _____

Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Bentonite pellets emplaced in well while hydrating.
Well casing filled to land surface with bentonite.

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 9/24/2012

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] 10/1/12
 SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113)

Steven V. Hudson
 PRINTED NAME OF PERSON ABANDONING THE WELL

Submit a copy to the owner and the original to: Division of Water Quality - Information Processing, 1617 Mail Service Center - Raleigh, NC 27699-1617, Phone No. (919) 807-6300

Modified from Form GW-30 Rev. 5/10



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources - Division of Water Quality

WELL CONTRACTOR CERTIFICATION #: 2161A

CATLIN PROJECT NO.: 212092

1. WELL CONTRACTOR:

Steven V. Hudson
Well Contractor (Individual) Name

CATLIN Engineers and Scientists
Well Contractor Company Name

220 Old Dairy Road
Street Address

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): MW-1D

STATE WELL PERMIT # (if applicable): N/A

COUNTY WELL PERMIT # (if applicable): N/A

DWQ or OTHER PERMIT # (if applicable): N.A.

WELL USE (Check Applicable Use): Monitoring Residential
 Municipal/Public Industrial/Commercial Agricultural
 Recovery Injection Irrigation
 Other (list use): _____

3. WELL LOCATION:

COUNTY: Cumberland QUADRANGLE NAME:
 NEAREST TOWN: Stedman
9007 Clinton Road, 28391
 (Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING

Slope Valley Flat Ridge Other: _____
 (Check appropriate setting)

LATITUDE: 35.002099471 DD

LONGITUDE: 78.654612312 DD

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) 0-36802

NAME OF FACILITY: Former Strickland Marathon

STREET ADDRESS: 9007 Clinton Road

Stedman North Carolina 28391
City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME: Mr. Terry Fox, L.G.

STREET ADDRESS: Century Center Complex-Building B, 1020 Birch Ridge Dr

5. WELL DETAILS:

a. Total Depth: 25 ft. Diameter: 2 in.
 b. Water Level (Below Measuring Point): 25 ft.
 Measuring point is _____ ft. above land surface

6. CASING:

	Length	Diameter
a. Casing Depth (if known):	<u>20</u> ft.	<u>2</u> in.
b. Casing Removed:	<u>0</u> ft.	<u>2</u> in.

7. DISINFECTION: N/A

(Amount of 65% to 75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement

Cement _____ lb.
 Water _____ gal.

Sand Cement

Cement _____ lb.
 Water _____ gal.

Bentonite

Bentonite 25 lb.

Type: Slurry 2 Pellets
 Water _____ gal.

Other

Type material _____

Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Bentonite pellets emplaced in well while hydrating.
Well casing filled to land surface with bentonite.

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 9/24/2012

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.

Steven V. Hudson 10-1-12
 SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

Steven V. Hudson _____ 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)

Steven V. Hudson
 PRINTED NAME OF PERSON ABANDONING THE WELL

Submit a copy to the owner and the original to: Division of Water Quality - Information Processing, 1617 Mail Service Center - Raleigh, NC 27699-1617, Phone No. (919) 807-6300

Modified from Form GW-30 Rev. 5/10



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources - Division of Water Quality

WELL CONTRACTOR CERTIFICATION #: 2161A

CATLIN PROJECT NO.: 212092

1. WELL CONTRACTOR:

Steven V. Hudson
Well Contractor (Individual) Name

CATLIN Engineers and Scientists
Well Contractor Company Name

220 Old Dairy Road
Street Address

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): MW-2

STATE WELL PERMIT # (if applicable): N/A

COUNTY WELL PERMIT # (if applicable): N/A

DWQ or OTHER PERMIT # (if applicable): N.A.

WELL USE (Check Applicable Use): Monitoring Residential
 Municipal/Public Industrial/Commercial Agricultural
 Recovery Injection Irrigation
 Other (list use): _____

3. WELL LOCATION:

COUNTY: Cumberland QUADRANGLE NAME:
 NEAREST TOWN: Stedman
9007 Clinton Road, 28391
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING
 Slope Valley Flat Ridge Other: _____
(Check appropriate setting)

LATITUDE: 35.002022487 DD
 LONGITUDE: 78.654595941 DD

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) 0-36802

NAME OF FACILITY: Former Strickland Marathon

STREET ADDRESS: 9007 Clinton Road
Stedman North Carolina 28391
 City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME: Mr. Terry Fox, L.G.

STREET ADDRESS: Century Center Complex-Building B, 1020 Birch Ridge Dr

5. WELL DETAILS:

a. Total Depth: 15 ft. Diameter: 2 in.
 b. Water Level (Below Measuring Point): 15 ft.
 Measuring point is _____ ft. above land surface

6. CASING:

	Length	Diameter
a. Casing Depth (if known):	<u>5</u> ft.	<u>2</u> in.
b. Casing Removed:	<u>0</u> ft.	<u>2</u> in.

7. DISINFECTION:

N/A
 (Amount of 65% to 75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement		Sand Cement	
Cement _____ lb.	Water _____ gal.	Cement _____ lb.	Water _____ gal.

Bentonite

Bentonite 25 lb.

Type: Slurry 2 Pellets
 Water _____ gal.

Other

Type material _____
 Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Bentonite pellets emplaced in well while hydrating.
Well casing filled to land surface with bentonite.

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 9/24/2012

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.

Steven V. Hudson 10-1-12
 SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

 SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113)

Steven V. Hudson
 PRINTED NAME OF PERSON ABANDONING THE WELL

Submit a copy to the owner and the original to: Division of Water Quality - Information Processing, 1617 Mail Service Center - Raleigh, NC 27699-1617, Phone No. (919) 807-6300.



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources - Division of Water Quality

WELL CONTRACTOR CERTIFICATION #: 2161A

CATLIN PROJECT NO.: 212082

1. WELL CONTRACTOR:

Steven V. Hudson
Well Contractor (Individual) Name

CATLIN Engineers and Scientists
Well Contractor Company Name

220 Old Dairy Road
Street Address

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): MW-3

STATE WELL PERMIT # (if applicable): N/A

COUNTY WELL PERMIT # (if applicable): N/A

DWQ or OTHER PERMIT # (if applicable): N.A.

WELL USE (Check Applicable Use): Monitoring Residential
 Municipal/Public Industrial/Commercial Agricultural
 Recovery Injection Irrigation
 Other (list use): _____

3. WELL LOCATION:

COUNTY: Cumberland QUADRANGLE NAME:
NEAREST TOWN: Stedman
9007 Clinton Road, 28391
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING

Slope Valley Flat Ridge Other: _____
(Check appropriate setting)

LATITUDE: 35.002123493 DD

LONGITUDE: 78.654365096 DD

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) 0-36802

NAME OF FACILITY: Former Strickland Marathon

STREET ADDRESS: 9007 Clinton Road
Stedman North Carolina 28391
City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME: Mr. Terry Fox, L.G.

STREET ADDRESS: Century Center Complex-Building B, 1020 Birch Ridge Dr

5. WELL DETAILS:

a. Total Depth: 15 ft. Diameter: 2 in.
b. Water Level (Below Measuring Point): 15 ft.
Measuring point is _____ ft. above land surface

6. CASING:

	Length	Diameter
a. Casing Depth (if known):	<u>5</u> ft.	<u>2</u> in.
b. Casing Removed:	<u>0</u> ft.	<u>2</u> in.

7. DISINFECTION: N/A

(Amount of 65% to 75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement

Cement _____ lb.
Water _____ gal.

Sand Cement

Cement _____ lb.
Water _____ gal.

Bentonite

Bentonite 25 lb.

Type: Slurry 2 Pellets
Water _____ gal.

Other

Type material _____

Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Bentonite pellets emplaced in well while hydrating.
Well casing filled to land surface with bentonite.

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 9/24/2012

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.

Steven V. Hudson 10-1-12
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113)

Steven V. Hudson
PRINTED NAME OF PERSON ABANDONING THE WELL

Submit a copy to the owner, and the original to: Division of Water Quality - Information Processing, 1617 Mail Service Center - Raleigh, NC 27699-1617, Phone No. (919) 807-6300

Modified from Form GW-30 Rev. 5/10



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources - Division of Water Quality

WELL CONTRACTOR CERTIFICATION #: 2161A

CATLIN PROJECT NO.: 212092

1. WELL CONTRACTOR:

Steven V. Hudson
Well Contractor (Individual) Name

CATLIN Engineers and Scientists
Well Contractor Company Name

220 Old Dairy Road
Street Address

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): MW-4

STATE WELL PERMIT # (if applicable): N/A

COUNTY WELL PERMIT # (if applicable): N/A

DWQ or OTHER PERMIT # (if applicable): N.A.

WELL USE (Check Applicable Use): Monitoring Residential
 Municipal/Public Industrial/Commercial Agricultural
 Recovery Injection Irrigation
 Other (list use): _____

3. WELL LOCATION:

COUNTY: Cumberland QUADRANGLE NAME:
NEAREST TOWN: Stedman
9007 Clinton Road, 28391
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING
 Slope Valley Flat Ridge Other: _____
(Check appropriate setting)

LATITUDE: 35.002362851 DD
LONGITUDE: 78.654470944 DD

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) 0-36802

NAME OF FACILITY: Former Strickland Marathon

STREET ADDRESS: 9007 Clinton Road

Stedman North Carolina 28391
City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME: Mr. Terry Fox, L.G.

STREET ADDRESS: Century Center Complex-Building B, 1020 Birch Ridge Dr

5. WELL DETAILS:

a. Total Depth: 15 ft. Diameter: 2 in.
b. Water Level (Below Measuring Point): 15 ft.
Measuring point is ft. above land surface

6. CASING:

	Length	Diameter
a. Casing Depth (if known):	<u>5</u> ft.	<u>2</u> in.
b. Casing Removed:	<u>2</u> ft.	<u>2</u> in.

7. DISINFECTION: N/A

(Amount of 65% to 75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement	Sand Cement
Cement _____ lb.	Cement _____ lb.
Water _____ gal.	Water _____ gal.

Bentonite

Bentonite 25 lb.

Type: Slurry 2 Pellets
Water _____ gal.

Other

Type material _____
Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Bentonite pellets emplaced in well while hydrating.
Section of well casing removed then filled to land surface with bentonite.

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 9/27/2012

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.

Steven V. Hudson 10-1-12
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113)

Steven V. Hudson
PRINTED NAME OF PERSON ABANDONING THE WELL

Submit a copy to the owner and the original to: Division of Water Quality - Information Processing, 1617 Mail Service Center - Raleigh, NC 27699-1617, Phone No. (919) 807-6300

Modified from Form GW-30 Rev. 5/10



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources - Division of Water Quality

WELL CONTRACTOR CERTIFICATION #: 2161A

CATLIN PROJECT NO.: 212092

1. WELL CONTRACTOR:

Steven V. Hudson
 Well Contractor (Individual) Name
 CATLIN Engineers and Scientists
 Well Contractor Company Name
 220 Old Dairy Road
 Street Address
 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): MW-5
 STATE WELL PERMIT # (if applicable): N/A
 COUNTY WELL PERMIT # (if applicable): N/A
 DWQ or OTHER PERMIT # (if applicable): N.A.
 WELL USE (Check Applicable Use): Monitoring Residential
 Municipal/Public Industrial/Commercial Agricultural
 Recovery Injection Irrigation
 Other (list use): _____

3. WELL LOCATION:

COUNTY: Cumberland QUADRANGLE NAME:
 NEAREST TOWN: Stedman
 9007 Clinton Road, 28391
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING

Slope Valley Flat Ridge Other: _____
(Check appropriate setting)

LATITUDE: 35.001972502 DD

LONGITUDE: 78.654412486 DD

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) 0-36802
 NAME OF FACILITY: Former Strickland Marathon
 STREET ADDRESS: 9007 Clinton Road
 Stedman North Carolina 28391
 City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME: Mr. Terry Fox, L.G.
 STREET ADDRESS: Century Center Complex-Building B, 1020 Birch Ridge Dr

5. WELL DETAILS:

a. Total Depth: 15 ft. Diameter: 2 in.
 b. Water Level (Below Measuring Point): 15 ft.
 Measuring point is _____ ft. above land surface

6. CASING:

	Length	Diameter
a. Casing Depth (if known):	<u>5</u> ft.	<u>2</u> in.
b. Casing Removed:	<u>2</u> ft.	<u>2</u> in.

7. DISINFECTION:

N/A
 (Amount of 65% to 75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement		Sand Cement	
Cement _____ lb.	Water _____ gal.	Cement _____ lb.	Water _____ gal.

Bentonite

Bentonite 25 lb.

Type: Slurry 2 Pellets
 Water _____ gal.

Other

Type material _____
 Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Bentonite pellets emplaced in well while hydrating.
Section of well casing removed then annulus filled to
land surface with bentonite.

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 9/27/2012

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.

Steven V. Hudson 10-1-12
 SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113)

Steven V. Hudson
 PRINTED NAME OF PERSON ABANDONING THE WELL

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Modified from Form GW-30 Rev. 5/10



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources - Division of Water Quality

WELL CONTRACTOR CERTIFICATION #: 2161A

CATLIN PROJECT NO.: 212092

1. WELL CONTRACTOR:

Steven V. Hudson
Well Contractor (Individual) Name

CATLIN Engineers and Scientists
Well Contractor Company Name

220 Old Dairy Road
Street Address

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): MW-6

STATE WELL PERMIT # (if applicable): N/A

COUNTY WELL PERMIT # (if applicable): N/A

DWQ or OTHER PERMIT # (if applicable): N.A.

WELL USE (Check Applicable Use): Monitoring Residential
 Municipal/Public Industrial/Commercial Agricultural
 Recovery Injection Irrigation
 Other (list use): _____

3. WELL LOCATION:

COUNTY: Cumberland QUADRANGLE NAME:
 NEAREST TOWN: Stedman
9007 Clinton Road, 28391
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING

Slope Valley Flat Ridge Other: _____
(Check appropriate setting)

LATITUDE: 35.002387371 DD

LONGITUDE: 78.654397374 DD

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) 0-36802

NAME OF FACILITY: Former Strickland Marathon

STREET ADDRESS: 9007 Clinton Road
Stedman North Carolina 28391
 City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME: Mr. Terry Fox, L.G.

STREET ADDRESS: Century Center Complex-Building B, 1020 Birch Ridge Dr

5. WELL DETAILS:

a. Total Depth: 15 ft. Diameter: 2 in.
 b. Water Level (Below Measuring Point): 15 ft.
 Measuring point is _____ ft. above land surface

6. CASING:

	Length	Diameter
a. Casing Depth (if known):	<u>5</u> ft.	<u>2</u> in.
b. Casing Removed:	<u>0</u> ft.	<u>2</u> in.

7. DISINFECTION:

N/A
 (Amount of 65% to 75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement	Sand Cement
Cement _____ lb.	Cement _____ lb.
Water _____ gal.	Water _____ gal.

Bentonite

Bentonite 25 lb.

Type: Slurry 2 Pellets
 Water _____ gal.

Other

Type material _____
 Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Bentonite pellets emplaced in well while hydrating.
Well casing filled to land surface with bentonite.

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 9/24/2012

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] 10-1-12
 SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

 SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113)

Steven V. Hudson
 PRINTED NAME OF PERSON ABANDONING THE WELL

Submit a copy to the owner and the original to: Division of Water Quality - Information Processing, 1617 Mail Service Center - Raleigh NC 27699-1617, Phone No: (919) 807-6300



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources - Division of Water Quality

WELL CONTRACTOR CERTIFICATION #: 2161A

CATLIN PROJECT NO.: 212092

1. WELL CONTRACTOR:

Steven V. Hudson
Well Contractor (Individual) Name

CATLIN Engineers and Scientists
Well Contractor Company Name

220 Old Dairy Road
Street Address

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): MW-7

STATE WELL PERMIT # (if applicable): N/A

COUNTY WELL PERMIT # (if applicable): N/A

DWQ or OTHER PERMIT # (if applicable): N.A.

WELL USE (Check Applicable Use): Monitoring Residential
 Municipal/Public Industrial/Commercial Agricultural
 Recovery Injection Irrigation
 Other (list use): _____

3. WELL LOCATION:

COUNTY: Cumberland QUADRANGLE NAME:
 NEAREST TOWN: Stedman
9007 Clinton Road, 28391
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING

Slope Valley Flat Ridge Other: _____
(Check appropriate setting)

LATITUDE: 35.002399088 DD

LONGITUDE: 78.654651118 DD

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) 0-36802
 NAME OF FACILITY: Former Strickland Marathon
 STREET ADDRESS: 9007 Clinton Road
Stedman North Carolina 28391
 City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME: Mr. Terry Fox, L.G.
 STREET ADDRESS: Century Center Complex Building B, 1020 Birch Ridge Dr

5. WELL DETAILS:

a. Total Depth: 15 ft. Diameter: 2 in.
 b. Water Level (Below Measuring Point): 15 ft.
 Measuring point is _____ ft. above land surface

6. CASING:

	Length	Diameter
a. Casing Depth (if known):	<u>5</u> ft.	<u>2</u> in.
b. Casing Removed:	<u>0</u> ft.	<u>2</u> in.

7. DISINFECTION:

N/A
 (Amount of 65% to 75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement

Cement _____ lb.
 Water _____ gal.

Sand Cement

Cement _____ lb.
 Water _____ gal.

Bentonite

Bentonite 25 lb.

Type: Slurry Pellets
 Water 2 gal.

Other

Type material _____
 Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Bentonite pellets emplaced in well while hydrating.
Well casing filled to land surface with bentonite.

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 9/24/2012

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] 10-1-12
 SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

 SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL DATE
(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113)

Steven V. Hudson
 PRINTED NAME OF PERSON ABANDONING THE WELL

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Modified from Form GW-30 Rev. 5/10



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources - Division of Water Quality

WELL CONTRACTOR CERTIFICATION #: 2161A

CATLIN PROJECT NO.: 212092

1. WELL CONTRACTOR:

Steven V. Hudson
Well Contractor (Individual) Name

CATLIN Engineers and Scientists
Well Contractor Company Name

220 Old Dairy Road
Street Address

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): MW-8

STATE WELL PERMIT # (if applicable): N/A

COUNTY WELL PERMIT # (if applicable): N/A

DWQ or OTHER PERMIT # (if applicable): N.A.

WELL USE (Check Applicable Use): Monitoring Residential
 Municipal/Public Industrial/Commercial Agricultural
 Recovery Injection Irrigation
 Other (list use): _____

3. WELL LOCATION:

COUNTY: Cumberland QUADRANGLE NAME: _____
 NEAREST TOWN: Stedman
9007 Clinton Road, 28391
(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING

Slope Valley Flat Ridge Other: _____
(Check appropriate setting)

LATITUDE: 35.002019882 DD

LONGITUDE: 78.654646043 DD

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) 0-36802
 NAME OF FACILITY: Former Strickland Marathon
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Stedman North Carolina 28391
 City or Town State Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME: Mr. Terry Fox, L.G.
 STREET ADDRESS: Century Center Complex-Building B, 1020 Birch Ridge Dr

5. WELL DETAILS:

a. Total Depth: 15 ft. Diameter: 2 in.
 b. Water Level (Below Measuring Point): 15 ft.
 Measuring point is _____ ft. above land surface

6. CASING:

	Length	Diameter
a. Casing Depth (if known):	<u>5</u> ft.	<u>2</u> in.
b. Casing Removed:	<u>0</u> ft.	<u>2</u> in.

7. DISINFECTION:

N/A
 (Amount of 65% to 75% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement		Sand Cement	
Cement _____ lb.	Water _____ gal.	Cement _____ lb.	Water _____ gal.

Bentonite

Bentonite 25 lb.

Type: Slurry Pellets
 Water 2 gal.

Other

Type material _____
 Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

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(The private well owner must be an individual who personally abandons his/her residential well in accordance with 15A NCAC 2C .0113)

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