PRELIMINARY SITE ASSESSMENT
FOR
PARCELS 97, 98, AND 99, WALTER L. WILLIAMS – HESS
210 W. 10TH STREET
GREENVILLE, NORTH CAROLINA

STATE PROJECT: U-3315
WBS ELEMENT: 35781.1.2

PREPARED FOR:

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

SEPTEMBER 12, 2012
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PREPARED BY:

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CATLIN PROJECT NO. 212077

CORPORATE GEOLOGY LICENSE CERTIFICATION NO. C-118
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September 12, 2012
Revised November 16, 2012

1.0 PURPOSE OF INVESTIGATION AND DESCRIPTION

CATLIN Engineers and Scientists (CATLIN) was retained by the North Carolina Department of Transportation (NCDOT) Geotechnical Engineering Unit to provide a field investigation concluding with a Preliminary Site Assessment (PSA) for the above site. In response to a June 19, 2012 Request for Proposal (RFP) (Updated June 29, 2012) and subsequent work scope clarifications with Mr. Gordon Box, LG and Mr. Cyrus Parker, PE, LG, CATLIN submitted a proposal for conducting an investigation at the Parcels 97, 98, and 99, Walter L. Williams – HESS property. The parcels/properties are located at 210 W. 10th Street along the NCDOT Project "*Stantonsburg Road/Tenth Street Connector from Memorial Drive (US 13) to Evans Street*" in Greenville, North Carolina. Sheet 1 illustrates the general location.

The following specific parcel information was provided by NCDOT:

> *The site is located on the north side of West 10th Street approximately 260 feet west of South Washington Street. According to NCDENR's UST Section registry five (5) tanks are currently in use, one (1) tank was removed in 1988, and two (2) tanks were filled with foam in 1988. Four (4) tank beds were observed near the northwest corner of the building. The location of the former tank bed(s) was not observed. No groundwater incidents were noted for this property.*

According to NCDOT acquisition of the right of way (ROW) is necessary for roadway construction (State Project U-3315) and specifically at the above referenced parcel (Parcels 97, 98, and 99). A site investigation is requested before ROW acquisition and roadway construction. Underground storage tanks (USTs) have been identified in the proposed ROW and/or easement(s).

The work scope as requested includes:

- Communicate progress reports to the GeoEnvironmental Section.
- Determine if contaminated soils or USTs are present within the NCDOT ROW, controlled access boundary (CA), or easement with particular emphasis on the vicinity of proposed excavations for drainage, utilities, and slope stake cuts.
- Estimate the quantity of impacted soils. Estimate the volume of impacted soils across the study area and the volume that will require excavation during construction. Indicate the approximate area of soil contamination on a site map and CADD file.
- Research the site for past uses and possible releases and include findings in final report.
- Report the depth to groundwater and obtain one groundwater sample from each site with emphasis on the vicinity of proposed drainage features. Test groundwater sample for contaminants relevant to the site's past use and/or possible releases.
- Provide a MicroStation file with the boring locations and estimated extent of impacted soils (if any).
- Prepare a report including field activities, findings, and recommendations and submit in triplicate and electronically to the NCDOT GeoEnvironmental Section.

This report documents our activities and findings at Parcels 97, 98, and 99, Walter L. Williams – HESS property, 210 W. 10th Street, Greenville, North Carolina. The site is illustrated on Sheet 2.

2.0 METHODS

Approximate proposed boring locations were discussed with NCDOT personnel before final Workplan submittal. Slope stake cuts were identified on the cross-section provided by NCDOT within the subject site along Alignment -L- near Station 76 and Station 78. Per NCDOT request, borings (soil samples) were located near known or suspect UST systems and proposed drainage features (as indicated on NCDOT provided plan sheets). The NCDOT Conventional Plan Sheet Symbols are provided on Sheet 1A. Accessible proposed drainage features at the site include drainage piping and catch basin number 1004.

North Carolina Department of Environment and Natural Resources (NCDENR) UST Section personnel were interviewed and the NCDENR UST database was reviewed.

CATLIN coordinated geophysical activities concurrently with soil boring and sampling. The geophysical investigation methods are detailed in the SCHNABEL ENGINEERING SOUTH, PC (Schnabel) geophysical report

provided in Appendix A. Final boring/sample locations were determined based on proposed drainage feature locations and elevations, geophysical results, file review information, field observations, and discussion with NCDOT personnel. CATLIN's field activities at the site began and concluded on July 31, 2012.

2.1 FIELD METHODS

All field work was conducted in general accordance with state and federal guidelines and industry standards.

Underground utility locating was coordinated by CATLIN personnel. The North Carolina One Call Center (NC-1-Call) was contacted for underground utility location. The areas around the proposed boring locations were checked and underground utilities were indicated by NC-1-Call personnel.

CATLIN personnel gathered subsurface soil data at the site by Direct Push Technology (DPT) boring advancement using an AMS PowerProbe™ 9600D (PowerProbe). Borings were identified by the parcel number 99 followed by "DPT" and consecutive numbers starting with "01" (example: 99DPT-01). Borings on adjacent parcel 98 were also identified as "99" and no borings were advanced on Parcel 97. Borings were located at proposed catch basin number 1004 and around the active UST system. In some cases of elevated OVA/PID readings, additional borings were advanced for soil sample collection in an attempt to delineate suspected soil contamination.

The borings were advanced to depth by static force and a 90-pound hydraulic percussion hammer. Two and one-quarter inch diameter by four-foot length steel is used as casing. Soil samples were continuously collected in four-foot long and one and one-half inch diameter clear liners. Liners are removed from the casing and then cut in half longitudinally to allow for visual/manual classification utilizing the Unified Soil Classification System (USCS). Soils were collected continuously from near the surface to boring termination. Borings for soil sample collection were terminated near the approximate proposed drainage feature installation elevation or eight (8) feet below land surface (BLS). Half of the soils from the liners were removed in two-foot intervals and placed in sealable polyethylene bags for organic vapor analysis (OVA) headspace screening utilizing a photo ionization detector (PID). The USCS, OVA/PID reading, and any indication of petroleum impact were recorded on field logs and have been transferred to the Boring Logs provided in Appendix B. As illustrated on Sheet 2, 14 borings were advanced for soil sample collection.

Soil samples for laboratory analysis were collected from the sample

interval above the water table with the highest OVA/PID reading and/or the sample interval near the bottom of the proposed drainage feature installation elevation. The sample interval was included with the boring identification as part of the soil sample identification [example: 99DPT-01(1-2 ft)]. The sample identifications are included on the Boring Logs in Appendix B and the laboratory analytical Chain of Custody in Appendix C. One (1) soil sample was collected for laboratory analysis except at boring 99DPT-01. Due to elevated OVA/PID readings near the surface, hydrocarbon odor near the bottom, and proximity of boring 99DPT-01 to the active UST system, two (2) soil samples were collected for laboratory analysis, one (1) shallow and one (1) deeper. Fifteen soil samples were submitted for laboratory analysis.

Eleven of the 14 borings were terminated at approximately eight (8) feet BLS. The 99DPT-06, 99DPT-13, and 99DPT-14 borings were terminated at 19 to 20 feet BLS for approximate depth to water (DTW) determination and groundwater sample collection. A groundwater sample was not collected from the 99DPT-06 boring. Following removal of the PowerProbe tooling, groundwater was pumped directly into the appropriate laboratory provided glassware utilizing new polypropylene tubing and a peristaltic pump.

New disposable nitrile gloves were worn during sampling activities. All samples were placed into laboratory provided glassware and packed on ice in an insulated cooler for transportation to the laboratory. Sample integrity was maintained by following proper Chain of Custody procedures. A copy of the Chain of Custody is provided following the analytical report in Appendix C.

Boreholes were abandoned to just below the surface using three-eighth inch bentonite chips. Bentonite and water were poured into the borehole simultaneously to facilitate hydration. Borings located in asphalt were topped with asphalt cold patch. Final borehole and sample locations were surveyed utilizing a Trimble® GPS survey instrument.

2.2 LABORATORY TESTING

Following boring advancement, selected soils were placed in the appropriately labeled glassware. In an attempt to provide information regarding possible petroleum and/or dry cleaning/solvent compound impact(s) to soils and/or groundwater with reasonable analytical expense, soil samples were analyzed for total petroleum hydrocarbon (TPH) diesel and gasoline range organics (DRO and GRO) by Environmental Protection Agency (EPA) Method 8015 and the groundwater samples were analyzed for volatile and semi-volatile organics per Standard Method (SM) 6200B and EPA Method 625 Base

Neutral (BN).

A total of 15 soil samples and two (2) groundwater samples were submitted to SGS Analytical Perspectives (NC Certification # 481). Chain of Custody documentation is included in Appendix C.

2.3 CONTAMINATED SOIL VOLUME

Four (4) soil volume calculations are provided as requested, the total contaminated soil volume across the site, the contaminated soil volume to be excavated for drainage feature installation, the contaminated soil volume to be excavated for water line and gas line installation, and contaminated soil volume in the cut section. The calculated contaminated soil volumes are generally based on one (1) discrete sample depth per boring. The total volume calculation assumes the contamination extends vertically from the surface to the water table. The volume calculation for drainage pipe installation assumes a vertical walled excavation two (2) feet wider than the drainage pipe width to one (1) foot below the final drainage feature installation invert elevation. The volume calculation for water line and gas line installation assumes an excavation 10 feet wide by five (5) feet deep as indicated by NCDOT. The cut soil volume is calculated using the average end-area method based on the estimated contaminated soil area within the cut area identified in the cross-section. Where the excavation areas for utility and/or drainage features may be in a cut section area, no consideration is taken to allow for overlapping soil volume calculations.

NCDOT requested an Action Level of 10 milligrams per kilogram (mg/kg) TPH for contaminated soil determination. Sample results greater than 10 mg/kg TPH are considered “dirty”. Contaminated soil volume is estimated from the midpoint distance between a “clean” sample location and “dirty” sample location or to the property line or ROW/easement. As requested by NCDOT, the volume estimate will only include soils within parcel property limits, NCDOT ROW, and/or easement. Where soil samples are collected at, near, or below the water table and contaminant concentrations are revealed, contamination may not exist above the seasonal high water table capillary fringe and near the surface. The installation/construction contractor may be able to reduce the soil volume requiring disposal by screening soils during excavation.

3.0 RESULTS

NCDENR Interview and File Review

NCDENR Washington Regional Office personnel were not aware of any releases on record for the site. The NCDENR UST database indicates one (1) 6,000 gallon tank was removed in 1988 and two (2) tanks (6,000 gallons each) were abandoned and filled with foam in 1988. Current tanks in use include: two (2) 12,000 gallon gasoline, one (1) 8,000 gallon gasoline, one 10,000 gallon diesel, and one (1) 12,000 gallon kerosene. The two (2) 12,000 gallon gasoline tanks are located within the proposed ROW. A portion of one (1) of the abandoned 6,000 gallon tanks may be partially in the proposed easement.

Geophysical Investigation

The complete geophysical investigation report by Schnabel is included in Appendix A and indicates that metallic USTs except at the known tank locations are unlikely to be encountered within 8 feet of the ground surface in the areas surveyed on the subject property.

Site Reconnaissance

CATLIN personnel interviewed Mr. Walter Williams at the site. Mr. Williams was not aware of any releases at the site and identified the known USTs and dispenser piping locations. Mr. Williams also stated he was not aware of any other tanks. Photographs of the site are provided in Appendix D. Additional photographs including the known tank locations in the proposed ROW are included in the Schnabel report provided in Appendix A.

Soil and Groundwater

Sandy clay / clayey sand soils with varying amounts of silt and clean sands were encountered across the project site. Generally, clay content increased with depth. Petroleum/hydrocarbon odor was noted in borings 99DPT-01, -02, -03, -05, -06, -08, -09, -11, -12, and -13. The OVA/PID headspace screening/readings ranged from 0 to over 1,000 parts per million. Moist soils were noted approximately four (4) feet deep. Complete boring logs including OVA/PID results are provided in Appendix B.

Summarized soil sample analytical results are provided on Table 1. Soil sample locations and summarized soil analytical results are illustrated on Sheet 2. As indicated on Table 1 and Sheet 2, TPH concentrations were reported above 10 mg/kg in borings around the western dispenser's canopy (kerosene and diesel dispensers), near the northeast gasoline dispenser, and at proposed catch basin number 1004.

Summarized groundwater sample analytical results are provided on Table 2, Table 3, and Sheet 2. Volatile compounds per SM 6200B were revealed in the 99DPT-13 boring (near the southwest corner of the convenience store) groundwater sample above the corresponding NCAC T15A:02L Groundwater Quality Standards (2L GWQS). Semi-volatile compounds per EPA Method 625 BN were revealed above the corresponding 2L GWQS in the 99DPT-13 boring and 99DPT-14 boring (at the proposed catch basin number 1004) groundwater samples. Depth to groundwater was measured at approximately five (5) feet BLS. The complete laboratory analytical report is provided in Appendix C.

Contaminated Soil Volume

In the event a cut is required for roadway construction or utility installation, any soil samples revealing detectable TPH concentrations will be considered petroleum impacted for handling and disposal purposes. However, the estimated extent of contaminated soil greater than the Action Level of 10 mg/kg is illustrated on Sheet 2 within the red dashed line and skull symbols. The extent of potentially impacted soil beyond the proposed ROW and/or easement and property line(s) is not considered for volume estimating purposes. While discreet soil samples were collected from soils that may be below the seasonal high water table, soil volume estimate is based on the assumption that impacted soils exist from just below the surface to the assumed water table at five (5) feet BLS.

The area illustrated with a red dashed line and skull symbols on Sheet 2 is roughly 12,735 square feet. If all soils within this area were excavated to five (5) deep, the volume would be approximately 2,358 cubic yards. However, it should be noted that generally across the site there were no contaminated soil indications (visual, hydrocarbon odor, or elevated OVA/PID readings) from above four (4) feet BLS. Additionally, while no soil samples were collected from Parcel 97 or the western portion of Parcel 98, following review of analytical and geophysical results and communications with NCDOT, it was decided no additional soil samples were need in an attempt to delineate the contamination.

The estimated contaminated soil volume to be removed for installation of the proposed catch basin number 1004 and associated piping is based on an assumed excavation width of 3.5 feet for installation of an 18 inch wide pipe. Also, it is assumed, (based on information provided by NCDOT) that the current surface elevation at the proposed catch basin 1004 location is 44.5 feet and the bottom of the excavation necessary for proposed drainage feature construction will be approximately 40.10 feet. Therefore, an excavation for drainage feature installation from the estimated extent of the contaminated soil east of proposed catch basin 1004 to the property line south of the proposed catch basin 1004 location will be approximately 45

linear feet long, by 3.5 feet wide, and 4.4 feet deep, which equals roughly 26 cubic yards.

The estimated contaminated soil volume to be removed for gas line and water line installation includes approximately 100 linear feet on the western portion of the site and 95 linear feet on the eastern portion of the site. Therefore, an excavation from the western property line east to the estimated extent and from the eastern property line west to the estimated extent, 10 feet wide by five (5) feet deep equals roughly 361 cubic yards.

The proposed cut section near Alignment -L- Station 75 and 78 that is within the estimated extent of contaminated soil is approximately 12 cubic yards.

4.0 SUMMARY AND RECOMMENDATIONS

A preliminary site assessment was conducted at the subject site as requested by NCDOT. NCDOT is planning roadway construction including utility installation and ROW acquisition at the site.

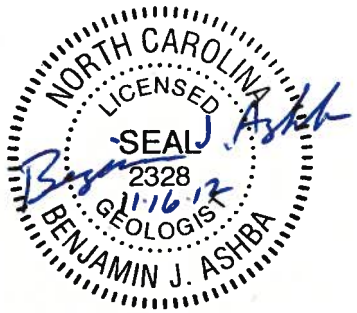
Impacted soils and groundwater were revealed in samples collected from within the proposed ROW and easement. A rough volume estimate of the contaminated soil volume is 2,358 cubic yards. The approximate contaminated soil volume to be removed for drainage feature installation within the property at/around the proposed catch basin number 1004 is 26 cubic yards. The approximate contaminated soil volume to be removed for gas line and water line installation is 361 cubic yards. The cut section within the estimated extent of contaminated soil is roughly 12 cubic yards. These volume estimates include soils from near the surface to the water table or bottom of proposed excavation. It may be possible to reduce the soil volume requiring treatment/disposal by screening soils during excavation activities.

Based on site reconnaissance and NCDENR file review information, there are two active 12,000 gallon gasoline USTs in the proposed ROW and an abandoned 6,000 gallon UST that is filled with foam and may be partially within the proposed easement. There are active petroleum dispensers and supply lines within the proposed ROW and easement also.

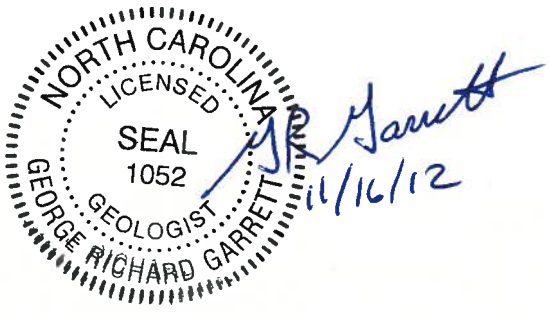
5.0 LIMITATIONS

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 in the project area where such contamination may exist. Although CATLIN has used accepted methods appropriate for soil and groundwater sampling, CATLIN cannot guarantee that additional soil and/or groundwater contamination does not exist.

6.0 SIGNATURES



Benjamin J. Ashba, P.G.
Project Manager



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

TABLES

TABLE 1
SUMMARY OF SOIL LABORATORY RESULTS - TPH DRO AND GRO

Parcels 97, 98, and 99, Walter L. Williams – HESS
210 W. 10th Street
Facility ID #:0-001727

Sample ID	Contaminant of Concern →		Diesel Range Organics (DRO)	Gasoline Range Organics (GRO)
	Date Collected	Location		
99DPT-01 (1-2ft)	7/31/12	Southeast corner of gas tank basin	<6.53	<3.75
99DPT-01 (7-8ft)	7/31/12	Southeast corner of gas tank basin	<8.45	<4.55
99DPT-02 (3-4ft)	7/31/12	Southwest corner of gas tank basin	8.75	<3.65
99DPT-03 (6-7ft)	7/31/12	Northwest corner of gas tank basin	**115**	**298**
99DPT-04 (7-8ft)	7/31/12	Near Southwest gas dispenser	<9.71	5.88
99DPT-05 (4-5ft)	7/31/12	Near Northwest gas dispenser	<6.82	<3.39
99DPT-06 (6-7ft)	7/31/12	Near Northeast gas dispenser	**16.7**	**164**
99DPT-07 (6-7ft)	7/31/12	Near Southeast gas dispenser	<8.13	<4.01
99DPT-08 (6-7ft)	7/31/12	≈ 25' West of diesel and kerosene dispensers	**18.7**	**44.5**
99DPT-09 (6-7ft)	7/31/12	West side of diesel and kerosene dispensers	**146**	**569**
99DPT-10 (6-7ft)	7/31/12	≈ 25' West of 99DPT-03	**10.4**	**39.3**
99DPT-11 (6-7ft)	7/31/12	≈ 25' West of 99DPT-02	8.09	**15.9**
99DPT-12 (6-7ft)	7/31/12	≈ 25' East of 99DPT-06	<8.57	**51.7**
99DPT-13 (6-7ft)	7/31/12	Southwest corner of Convenience Store	**67.2**	<3.69
99DPT-14 (4-4.4ft)	7/31/12	@ CB 1004	<7.37	**1,160**
		State Action Level (mg/kg)	**10**	**10**

TPH = Total Petroleum Hydrocarbon
All results in milligrams per kilogram (mg/kg).
Sample depth below land surface provided in parenthesis as part of the sample identification.
BMDL = Below Method Detection Limit
ft. BLS = Feet Below Land Surface
CB = Proposed Catch Basin
Bold results exceed the State Action Level of 10 mg/kg.

TABLE 2
SUMMARY OF GROUNDWATER LABORATORY RESULTS - STANDARD METHOD 6200B

Parcels 97, 98, and 99, Walter L. Williams – HESS
210 W. 10th Street
Facility ID #:0-001727

Sample ID	Contaminant of Concern →		1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	4-Isopropyltoluene	Benzene	cis-1,2-Dichloroethene	Ethyl Benzene	Isopropylbenzene (Cumene)	Naphthalene	n-Propylbenzene	sec-Butylbenzene	Toluene	Xylene (total)	All other Standard Method 6200B Parameters
	Date Collected	Location													
99DPT-13	7/31/12	Southwest corner of Convenience Store	**461**	129	8.00 J	**412**	6.40 J	441	22.8	**98.8**	**76.0**	5.20 J	373	**1,400**	BMDL
99DPT-14	7/31/12	@ CB 1004	<0.0961	<0.113	<0.0769	<0.113	<0.136	<0.0877	<0.0869	<0.0855	<0.113	<0.112	<0.133	<0.269	BMDL
		2L GWQS (ug/L)	400	400	25	1	70	600	70	6	70	70	600	500	Varies

All results in micrograms per liter (ug/L).

BMDL = Below Method Detection Limit

Refer to analytical report for a complete list of parameters and detection limits.

J = Estimated Concentration

< = Less than method detection limit

Bold results indicate concentrations above the NCAC T15A:02L Groundwater Quality Standards (2L GWQS).

CB = Proposed Catch Basin

TABLE 3
SUMMARY OF GROUNDWATER LABORATORY RESULTS - EPA METHOD 625 BASE NEUTRAL

Parcels 97, 98, and 99, Walter L. Williams – HESS
210 W. 10th Street
Facility ID #:0-001727

Sample ID	Contaminant of Concern →		Benzo(a)anthracene	Benzo(b)fluoranthene	Bis(2-Ethylhexyl) phthalate	Chrysene	Fluoranthene	Naphthalene	Phenanthrene	Pyrene	All other EPA Method 625 Base Neutral Parameters
	Date Collected	Location									
99DPT-13	7/31/12	Southwest corner of Convenience Store	<2.10†	<2.10†	2.46 J	<2.35	<2.16	**49.5**	<2.13	<2.15	BMDL
99DPT-14	7/31/12	@ CB 1004	**3.57 J**	**3.57 J**	2.33 J	**5.03 J**	19.9	<2.10	18.8	14.0	BMDL
		2L GWQS (ug/L)	0.05	0.05	3	5	300	6	200	200	Varies

All results in micrograms per liter (ug/L).
BMDL = Below Method Detection Limit
Refer to analytical report for a complete list of parameters and detection limits.
J = Estimated Concentration
† = Detection limit is higher than the lowest Maximum Soil Contaminant Concentration (MSCC)
< = Less than method detection limit
CB = Proposed Catch Basin
Bold results indicate concentrations above the NCAC T15A:02L Groundwater Quality Standards (2L GWQS).

SHEETS

PROJECT REFERENCE NO.	SHEET
35781.1.2 (U-3315)	1

GeoEnvironmental

0 2,000 4,000

FEET

PARCELS 97, 98, & 99

PROJECT REFERENCE NO.	SHEET NO.
U-3325	1-A

Note: Not to Scale

****S.U.E. = Subsurface Utility Engineering***

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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 U/G 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 — JS
- Buffer Zone 1 — BZ 1
- Buffer Zone 2 — BZ 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch
- False Sump

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — 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 — E
- Proposed Temporary Construction Easement — E
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Drainage Easement — PDE
- Proposed Permanent Drainage / Utility Easement — DUE
- Proposed Permanent Utility Easement — PUE
- Proposed Temporary Utility Easement — TUE
- Proposed Aerial Utility Easement — AUE
- 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 — Vineyard

EXISTING STRUCTURES:

MAJOR:
- Bridge, Tunnel or Box Culvert — CONC
- Bridge Wing Wall, Head Wall and End Wall — CONC WW

MINOR:
- Head and End Wall — CONC HW
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB — CB
- Paved Ditch Gutter
- Storm Sewer Manhole — SMH
- Storm Sewer — S

UTILITIES:

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

TELEPHONE:
- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole
- Telephone Booth
- Telephone Pedestal
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole
- Recorded U/G Telephone Cable
- Designated U/G Telephone Cable (S.U.E.*)
- Recorded U/G Telephone Conduit
- Designated U/G Telephone Conduit (S.U.E.*)
- Recorded U/G Fiber Optics Cable — FO
- Designated U/G Fiber Optics Cable (S.U.E.*) — FO

WATER:
- Water Manhole
- Water Meter
- Water Valve
- Water Hydrant
- Recorded U/G Water Line — W
- Designated U/G Water Line (S.U.E.*) — W
- Above Ground Water Line — A/G Water

TV:
- TV Satellite Dish
- TV Pedestal
- TV Tower
- U/G TV Cable Hand Hole
- Recorded U/G TV Cable — TV
- Designated U/G TV Cable (S.U.E.*) — TV
- Recorded U/G Fiber Optic Cable — TV FO
- Designated U/G Fiber Optic Cable (S.U.E.*) — TV FO

GAS:
- Gas Valve
- Gas Meter
- Recorded U/G Gas Line
- Designated U/G Gas Line (S.U.E.*)
- Above Ground Gas Line — A/G Gas

SANITARY SEWER:
- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- Recorded SS Forced Main Line — FM
- Designated SS Forced Main Line (S.U.E.*) — FM

MISCELLANEOUS:
- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box
- Utility Unknown U/G Line — ?
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. — UST
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

PROJECT REFERENCE NO.	SHEET
35781.1.2 (U-3315)	2

GeoEnvironmental

0 20 40
FEET

LEGEND

ID. SOIL BORING/SAMPLE

ID. SOIL BORING/SAMPLE & GROUNDWATER SAMPLE

ID "HOT" SAMPLE

SUMMARY OF GROUNDWATER LABORATORY RESULTS - STANDARD METHOD 6200B

Parcels 97, 98, and 99, Walter L. Williams – HESS
210 W. 10th Street
Facility ID #:0-001727

Sample ID	Contaminant of Concern → Date Collected	Location	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	4-Isopropyltoluene	Benzene	cis-1,2-Dichloroethene	Ethyl Benzene	Isopropylbenzene (Cumene)	Naphthalene	n-Propylbenzene	sec-Butylbenzene	Toluene	Xylene (total)	All other Standard Method 6200B Parameters
99DPT-13	7/31/12	Southwest corner of Convenience Store	**461**	129	8.00 J	**412**	6.40 J	441	22.8	**98.8**	**76.0**	5.20 J	373	**1,400**	BMDL
99DPT-14	7/31/12	@ CB 1004	<0.0961	<0.113	<0.0769	<0.113	<0.136	<0.0877	<0.0869	<0.0855	<0.113	<0.112	<0.133	<0.269	BMDL
		2L GWQS (ug/L)	400	400	25	1	70	600	70	6	70	70	600	500	Varies

SUMMARY OF GROUNDWATER LABORATORY RESULTS - EPA METHOD 625 BASE NEUTRAL

Parcels 97, 98, and 99, Walter L. Williams – HESS
210 W. 10th Street
Facility ID #:0-001727

Sample ID	Contaminant of Concern → Date Collected	Location	Benzo(a)anthracene	Benzo(b)fluoranthene	Bis(2-Ethylhexyl) phthalate	Chrysene	Fluoranthene	Naphthalene	Phenanthrene	Pyrene	All other EPA Method 625 Base Neutral Parameters
99DPT-13	7/31/12	Southwest corner of Convenience Store	<2.10†	<2.10†	2.46 J	<2.35	<2.16	**49.5**	<2.13	<2.15	BMDL
99DPT-14	7/31/12	@ CB 1004	**3.57 J**	**3.57 J**	2.33 J	**5.03 J**	19.9	<2.10	18.8	14.0	BMDL
		2L GWQS (ug/L)	0.05	0.05	3	5	300	6	200	200	Varies

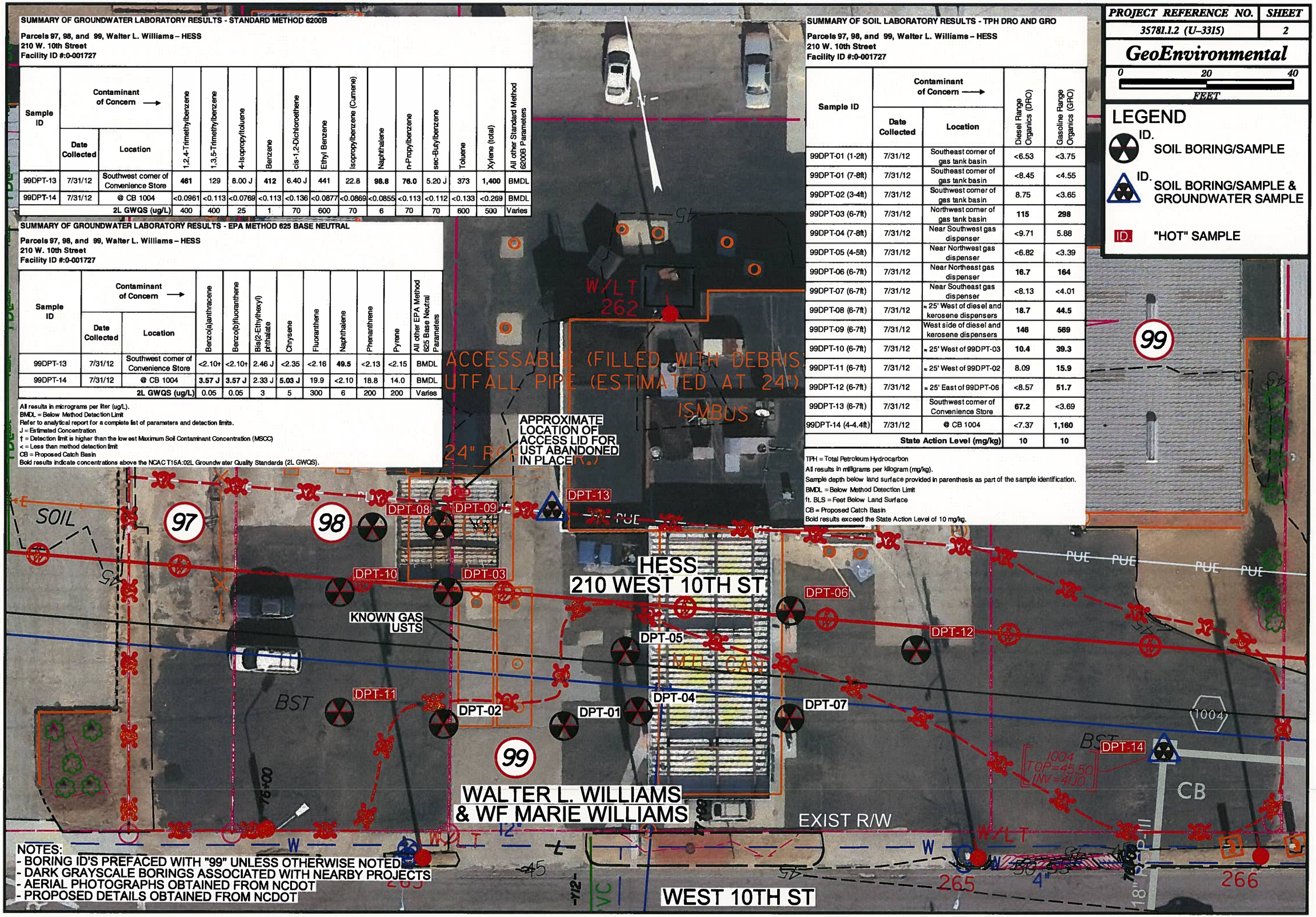
All results in micrograms per liter (ug/L).
BMDL = Below Method Detection Limit
Refer to analytical report for a complete list of parameters and detection limits.
J = Estimated Concentration
† = Detection limit is higher than the low est Maximum Soil Contaminant Concentration (MSCC)
< = Less than method detection limit
CB = Proposed Catch Basin
Bold results indicate concentrations above the NCAC T15A:02L Groundw ater Quality Standards (2L GWQS).

SUMMARY OF SOIL LABORATORY RESULTS - TPH DRO AND GRO

Parcels 97, 98, and 99, Walter L. Williams – HESS
210 W. 10th Street
Facility ID #:0-001727

Sample ID	Contaminant of Concern → Date Collected	Location	Diesel Range Organics (DRO)	Gasoline Range Organics (GRO)
99DPT-01 (1-2ft)	7/31/12	Southeast corner of gas tank basin	<6.53	<3.75
99DPT-01 (7-8ft)	7/31/12	Southeast corner of gas tank basin	<8.45	<4.55
99DPT-02 (3-4ft)	7/31/12	Southwest corner of gas tank basin	8.75	<3.65
99DPT-03 (6-7ft)	7/31/12	Northwest corner of gas tank basin	**115**	**298**
99DPT-04 (7-8ft)	7/31/12	Near Southwest gas dispenser	<9.71	5.88
99DPT-05 (4-5ft)	7/31/12	Near Northwest gas dispenser	<6.82	<3.39
99DPT-06 (6-7ft)	7/31/12	Near Northeast gas dispenser	**16.7**	**164**
99DPT-07 (6-7ft)	7/31/12	Near Southeast gas dispenser	<8.13	<4.01
99DPT-08 (6-7ft)	7/31/12	≈ 25' West of diesel and kerosene dispensers	**18.7**	**44.5**
99DPT-09 (6-7ft)	7/31/12	West side of diesel and kerosene dispensers	**146**	**569**
99DPT-10 (6-7ft)	7/31/12	≈ 25' West of 99DPT-03	**10.4**	**39.3**
99DPT-11 (6-7ft)	7/31/12	≈ 25' West of 99DPT-02	8.09	**15.9**
99DPT-12 (6-7ft)	7/31/12	≈ 25' East of 99DPT-06	<8.57	**51.7**
99DPT-13 (6-7ft)	7/31/12	Southwest corner of Convenience Store	**67.2**	<3.69
99DPT-14 (4-4.4ft)	7/31/12	@ CB 1004	<7.37	**1,160**
		State Action Level (mg/kg)	10	10

TPH = Total Petroleum Hydrocarbon
All results in milligrams per kilogram (mg/kg).
Sample depth below land surface provided in parenthesis as part of the sample identification.
BMDL = Below Method Detection Limit
ft. BLS = Feet Below Land Surface
CB = Proposed Catch Basin
Bold results exceed the State Action Level of 10 mg/kg.



NOTES:
- BORING ID'S PREFACED WITH "99" UNLESS OTHERWISE NOTED
- DARK GRAYSCALE BORINGS ASSOCIATED WITH NEARBY PROJECTS
- AERIAL PHOTOGRAPHS OBTAINED FROM NCDOT
- PROPOSED DETAILS OBTAINED FROM NCDOT

APPENDICES

APPENDIX A
SCHNABEL GEOPHYSICAL REPORT

Schnabel
ENGINEERING

August 15, 2012

Mr. Richard Garrett, LG, Project Manager
Catlin Engineers and Scientists, Inc.
P.O. Box 10279
Wilmington, NC 28404-0279

RE:
State Project: U-3315
WBS Element: 35781.1.2
County: Pitt
Description: Stantonsburg Road/Tenth Street Connector from Memorial Drive (US 13) to Evans Street

Subject: **Project 11821014.17, Report on Geophysical Surveys**
Parcels 97/98/99, Walter L. Williams Properties, Greenville, North Carolina

Dear Mr. Garrett:

SCHNABEL ENGINEERING SOUTH, PC (Schnabel) is pleased to present this report on the geophysical surveys we performed on the subject properties. The report includes two 11x17 color figures and three 8.5x11 color figures.

INTRODUCTION

The work described in this report was performed on July 10 and July 24 and July 25, 2012, by Schnabel under our 2011 contract with the NCDOT. The surveys were performed over the accessible areas of the properties as indicated by the NCDOT to support their environmental assessment of the subject properties. Photographs of the properties are included on Figure 1. The properties are located on the north side of W 10th Street approximately 260 feet west of S Washington Street in Greenville, NC. The purpose of the geophysical surveys was to investigate the presence of metal underground storage tanks (USTs) in the accessible areas of the right-of-way and/or easement.

The geophysical surveys consisted of an electromagnetic (EM) induction survey and a ground penetrating radar (GPR) survey. The EM survey was performed using a Geonics EM61-MK2 instrument. The EM61 is a time domain metal detector that is used to locate metal objects buried up to about eight feet below ground surface. When collecting EM61 data, three or four time gates are recorded of the response decay rate. The GPR survey was performed over selected EM61 anomalies, including areas of reinforced

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11A Oak Branch Drive / Greensboro, NC / 27407

concrete, using a Geophysical Survey Systems SIR-3000 system equipped with a 400 MHz antenna. Photographs of the equipment used are shown on Figure 2.

FIELD METHODOLOGY

Locations of geophysical data points were obtained using a sub-meter Trimble Pro-XRS DGPS system. References to direction and location in this report are based on the US State Plane 1983 System, North Carolina 3200 Zone, using the NAD 83 datum, with units in US survey feet. We recorded the locations of existing site features (monitoring wells, signs, etc.) with the Trimble system for later correlation with the geophysical data and locations provided by the NCDOT.

The EM61 data were collected along parallel survey lines spaced approximately 2.5 feet apart. The EM61 and DGPS data were recorded digitally using a field computer and later transferred to a desktop computer for data processing. The GPR data were collected along survey lines spaced one to two feet apart in orthogonal directions over areas of reinforced concrete and anomalous EM readings not attributed to cultural features. The GPR data were reviewed in the field to evaluate the possible presence of USTs. The GPR data also were recorded digitally and later transferred to a desktop computer for further review.

DISCUSSION OF RESULTS

The contoured EM61 data collected over Parcels 97, 98, and 99 are shown on Figures 3 and 4. The EM61 early time gate data are plotted on Figure 3. The early time gate data provide a more sensitive detection of metal objects than the later time gate data. Figure 4 shows the differential response between the top and bottom coils of the EM61 instrument. The differential response data filters out the effect of surface and very shallowly buried metallic objects. Typically, the differential response emphasizes anomalies from deeper and larger objects such as USTs.

The early time gate and differential results show anomalies of unknown cause, in addition to those apparently caused by buried utilities or known site features (Figures 3 and 4). The GPR data indicate that the EM anomalies of unknown cause are probably caused by reinforced concrete, small buried metal objects, and surface metal. The GPR data collected near the southwest corner of the westernmost building indicate the presence of two known USTs, as shown on Figures 3 and 4. Example GPR images showing the reflections from the known USTs are shown on Figure 5. The GPR data indicate that known UST Nos. 1 and 2 are buried approximately 2.0 to 3.0 feet below ground surface, and are about 8 feet in diameter and about 32 feet long, equivalent to a capacity of about 12,000 gallons. Photographs of the approximate location of the known USTs that were marked in the field are included on Figure 6.

The GPR data collected near the northeast corner of the western canopy did not indicate the presence of two other known USTs. The lid for one of these USTs is about 1 foot outside of the easement, and the lid for the other UST is about 17 feet outside of the easement. According to the owner and the maintenance supervisor these USTs were filled with concrete or foam and are no longer active. According to NCDENR's UST Section registry these two tanks had a capacity of about 6,000-gallons, which would give dimensions of about 8 feet in diameter by about 16 feet long. It is possible that the known UST with a lid about 1 foot outside of the easement is at least partially located within the easement. The known UST with a lid about 17 feet outside of the easement is probably not located within the easement. The

maintenance supervisor also supplied us with a list of active tanks and a map showing the active tank locations. The other active tanks, apart from known UST Nos. 1 and 2, are outside of the easement.

CONCLUSIONS

Our evaluation of the geophysical data collected on the subject property on Project U-3315 in Greenville, NC indicates the following:

The geophysical data indicate the presence of two known USTs within the right-of-way/easement on Parcels 97, 98, and 99. Known UST Nos. 1 and 2 are about 12,000-gallon capacity and are buried about 2.0 to 3.0 feet below ground surface.

Please note that the UST locations that were marked in the field with paint, as shown on Figure 6, are approximate, since the locations, lengths, and widths are subject to revision after review in the office. For this reason, we have recommended that exploratory borings or excavations be located at least three feet away from the painted outline of the suspect USTs. Known UST Nos. 1 and 2 were marked as 5.5 feet by 32 feet but our office review and information gathered from the current tenants indicated the tanks are about 8 feet diameter by 32 feet long.

LIMITATIONS

These services have been performed and this report prepared for Catlin Engineers and Scientists, Inc. and the North Carolina Department of Transportation in accordance with generally accepted guidelines for conducting geophysical surveys. It is generally recognized that the results of geophysical surveys are non-unique and may not represent actual subsurface conditions.

We appreciate the opportunity to have provided these services. Please call if you need additional information or have any questions.

Sincerely,

SCHNABEL ENGINEERING SOUTH, PC

James W. Whitt, LG
Senior Staff Geophysicist

Jeremy S. Strohmeyer, LG
Project Manager

JW:JS
Attachments: Figures (6)
CC: NCDOT, Gordon Box
FILE: G:\2011-SDE-JOBS\11821014_00_NCDOT_2011_GEOTECHNICAL_UNIT_SERVICES\11821014_17_U-3315_PITT_COUNTY\REPORT\PARCELS 97-99\SCHNABEL GEOPHYSICAL REPORT ON PARCELS 97, 98, & 99 (U-3315).DOCX

Parcels 97, 98, & 99 (Walter L. Williams Property), looking northeast

Parcels 97, 98, & 99 (William Young Property), looking northwest

Schnabel ENGINEERING	STATE PROJECT U-3315 NC DEPT. OF TRANSPORTATION PITT COUNTY, NORTH CAROLINA PROJECT NO. 11821014.17	PARCELS 97, 98, & 99 SITE PHOTOS FIGURE 1

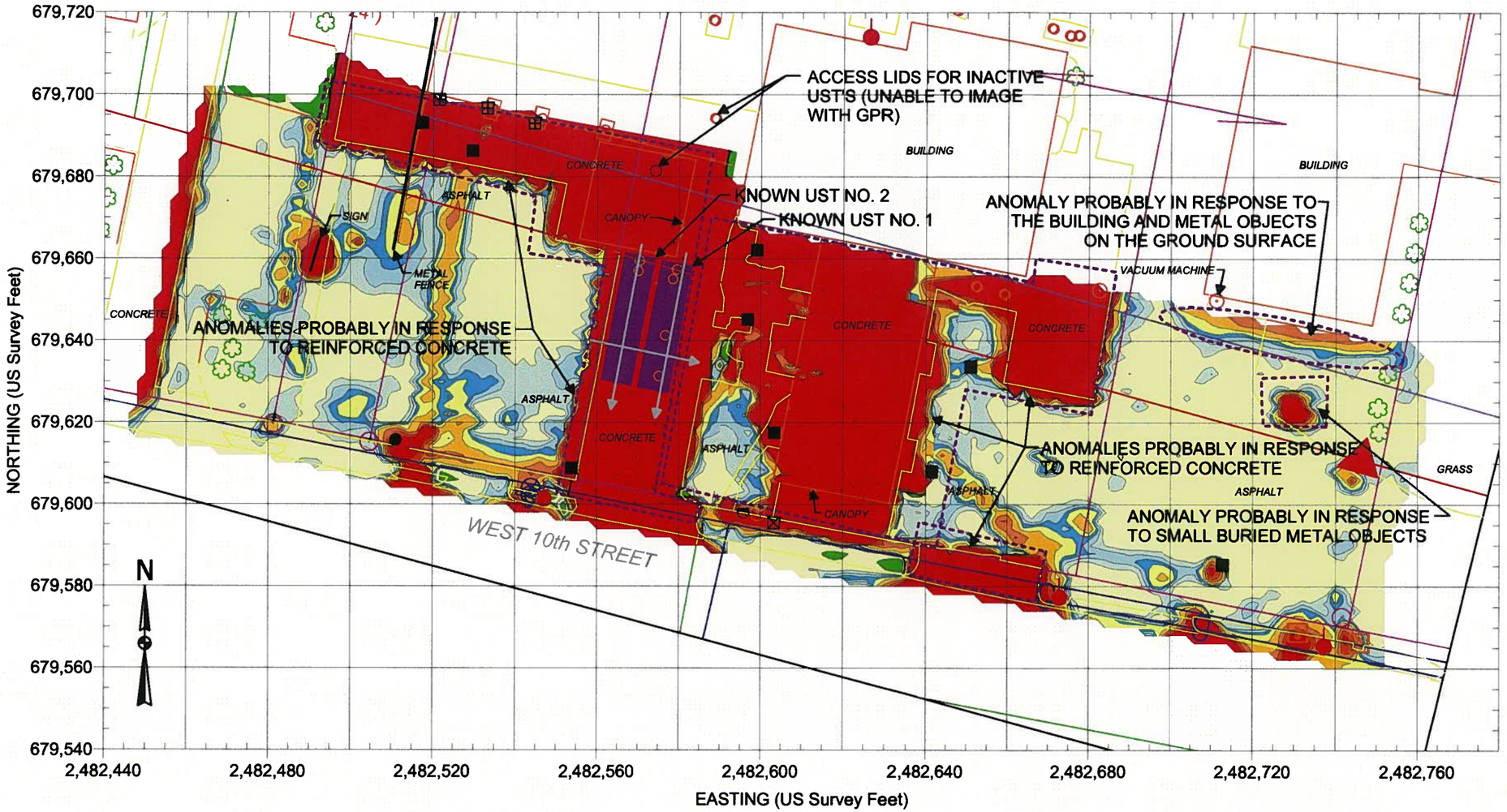
Geonics EM61-MK2 Metal Detector with Trimble DGPS Unit

GSSI SIR-3000 Ground-Penetrating Radar with 400 MHz Antenna

Note: Stock photographs – not taken on site.

Schnabel ENGINEERING	STATE PROJECT U-3315 NC DEPT. OF TRANSPORTATION PITT COUNTY, NORTH CAROLINA PROJECT NO. 11821014.17	PHOTOS OF GEOPHYSICAL EQUIPMENT USED FIGURE 2

PARCELS 97, 98, & 99



EXPLANATION

- SIGN
- MISCELLANEOUS METALLIC OBJECT
- UTILITY MANHOLE, METER, BOX, ETC.
- STORMSEWER INLET
- MONITORING WELL
- EDGE OF NCDOT PROPOSED R/W
- PROPERTY LINE
- EXAMPLE GPR LINE LOCATION
- GPR SURVEY AREA
- LOCATION OF KNOWN OR SUSPECT USTS MARKED ON SITE

REF.: NCDOT FILE: u3315_rdy_psh10.dgn
(FOR SOME SITE FEATURES)

Scale in US Survey Feet

0 30 60 90

EM61 Early Time Gate Response (mV)

-15000 -100 0 50 100 150 200 300 500 750 1000 2000

Note: The contour plot shows the earliest and more sensitive time gate of the EM61 bottom coil/channel in millivolts (mV). The EM data were collected on July 10, 2012, using a Geonics EM61-MK2 instrument. Positioning for the EM61 survey was provided using a submeter Trimble ProXRS DGPS system. Coordinates are in the US State Plane 1983 System, North Carolina Zone 3200, using the NAD 1983 datum. GPR data were acquired on July 24 and July 25, 2012, using a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna.

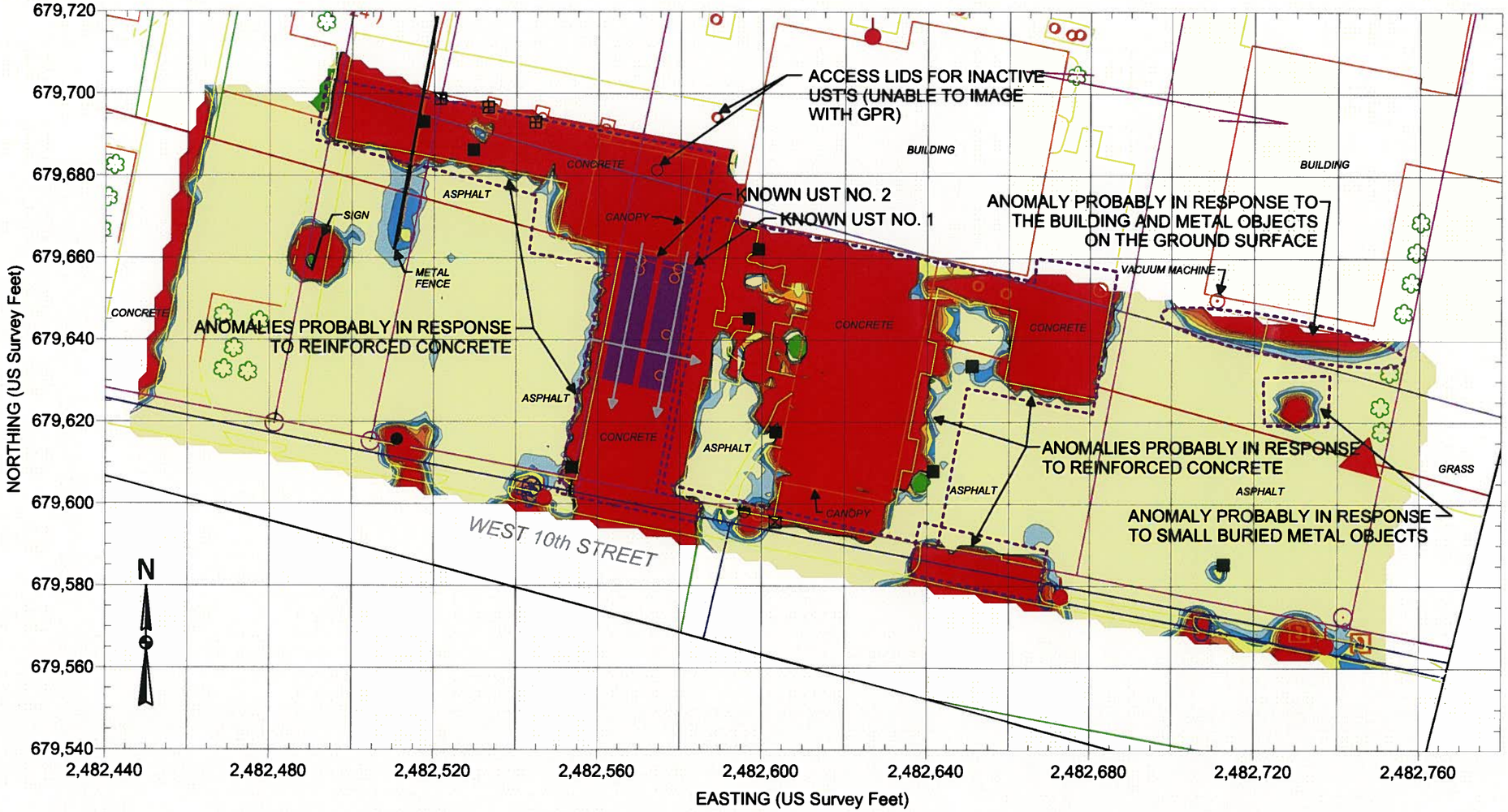
Schnabel ENGINEERING

STATE PROJECT U-3315
NC DEPARTMENT OF TRANSPORTATION
PITT COUNTY, NORTH CAROLINA
PROJECT NO. 11821014.17

EM61
EARLY TIME GATE
RESPONSE

FIGURE 3

PARCELS 97, 98, & 99



EXPLANATION

- SIGN
- MISCELLANEOUS METALLIC OBJECT
- UTILITY MANHOLE, METER, BOX, ETC.
- STORMSEWER INLET
- MONITORING WELL
- EDGE OF NCDOT PROPOSED R/W
- PROPERTY LINE
- EXAMPLE GPR LINE LOCATION
- GPR SURVEY AREA
- LOCATION OF KNOWN OR SUSPECT USTS MARKED ON SITE

REF.: NCDOT FILE: u3315_rdy_psh10.dgn
(FOR SOME SITE FEATURES)

Scale in US Survey Feet

0 30 60 90

EM61 Differential Response (mV)

-20000 -100 0 40 60 80 100 120 140 160 200

Note: The contour plot shows the difference, in millivolts (mV), between the readings from the top and bottom coils of the EM61. The difference is taken to reduce the effect of shallow metal objects and emphasize anomalies caused by deeper metallic objects, such as drums and tanks. The EM data were collected on July 10, 2012, using a Geonics EM61-MK2 instrument. Positioning for the EM61 survey was provided using a submeter Trimble ProXRS DGPS system. Coordinates are in the US State Plane 1983 System, North Carolina 3200 Zone, using the NAD 1983 datum. GPR data were acquired on July 24 and July 25, 2012, using a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna.

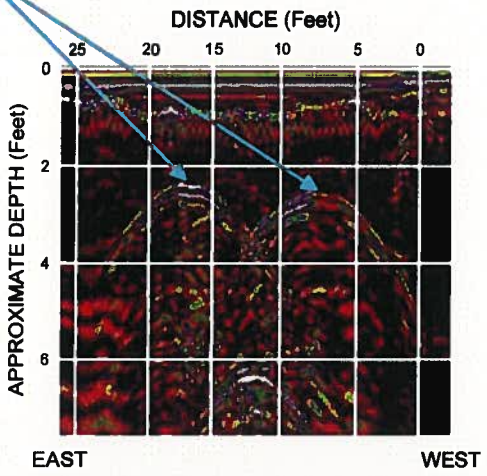
Schnabel ENGINEERING

STATE PROJECT U-3315
NC DEPARTMENT OF TRANSPORTATION
PITT COUNTY, NORTH CAROLINA
PROJECT NO. 11821014.17

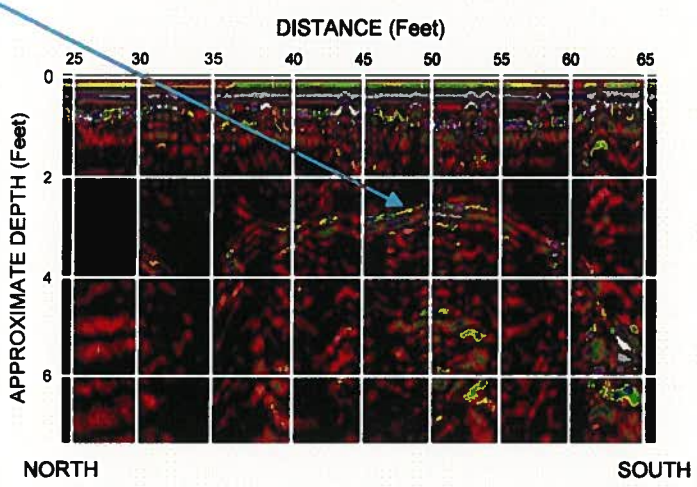
EM61
DIFFERENTIAL
RESPONSE

FIGURE 4

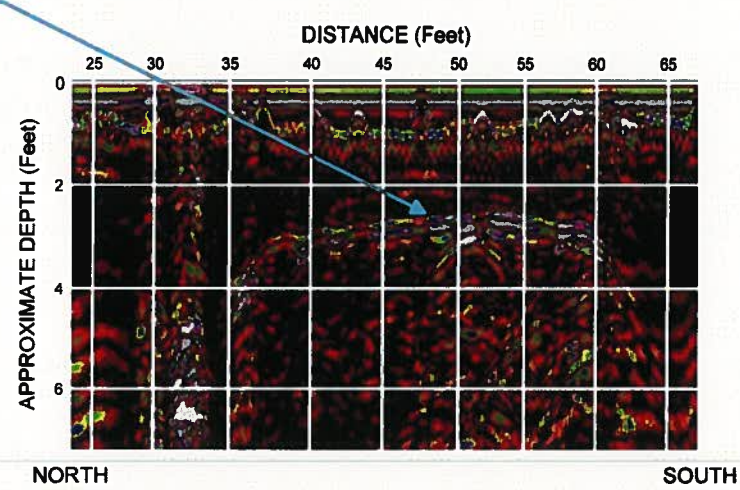
EXAMPLE GPR RESPONSES FROM THE SHORT AXES OF KNOWN UST NOS. 1 & 2



EXAMPLE GPR RESPONSE FROM THE LONG AXIS OF KNOWN UST NO. 1



EXAMPLE GPR RESPONSE FROM THE LONG AXIS OF KNOWN UST NO. 2



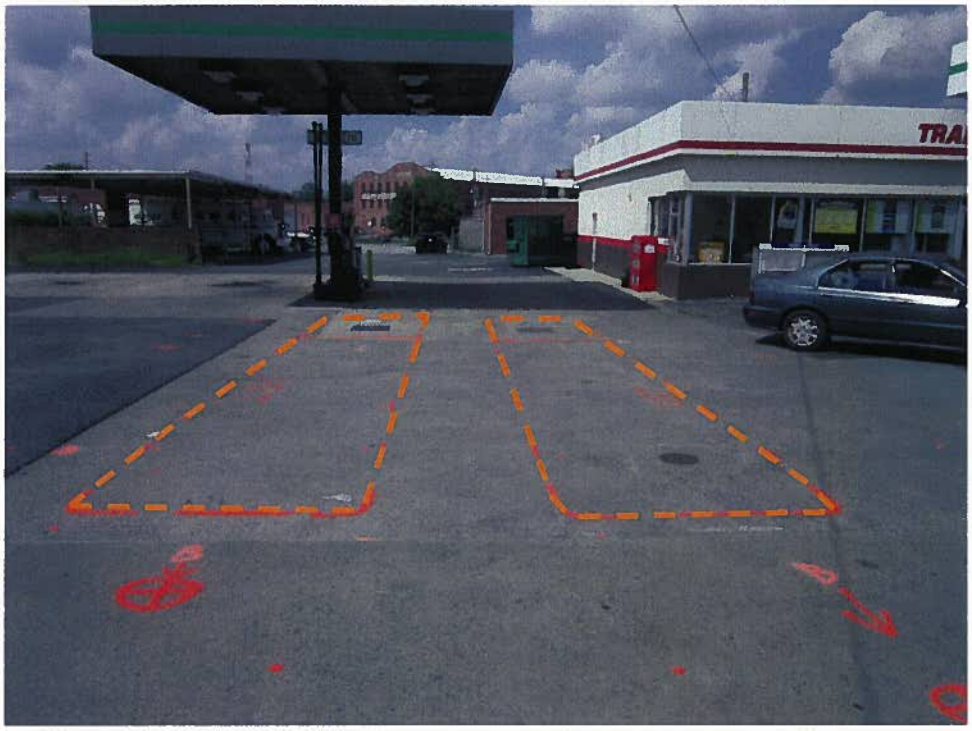
Schnabel ENGINEERING

STATE PROJECT U-3315
NC DEPARTMENT OF TRANSPORTATION
PITT COUNTY, NORTH CAROLINA
PROJECT NO. 11821014.17

PARCELS 97, 98, & 99
GPR IMAGES

FIGURE 5

Parcels 97, 98, & 99 (Walter L. Williams Property), looking east. Photo shows approximate marked location of known UST Nos. 1 and 2 near the southwest corner of the westernmost building.



Parcels 97, 98, & 99 (Walter L. Williams Property), looking north. Photo shows approximate marked location of known UST Nos. 1 and 2 near the southwest corner of the westernmost building.

Schnabel ENGINEERING	STATE PROJECT U-3315 NC DEPT. OF TRANSPORTATION PITT COUNTY, NORTH CAROLINA PROJECT NO. 11821014.17	PHOTOS OF UST LOCATIONS FIGURE 6

APPENDIX B
BORING LOGS

BORING LOG

CATLIN Engineers and Scientists
Wilmington, NC
WBS Element: 35781.1.2
State Project: U-3315

PROJECT NO.: 212077	STATE: NC	COUNTY: Pitt		LOCATION: Greenville	
PROJECT NAME: Parcels 97, 98, and 99 - Walter L. Williams - HESS		LOGGED BY: Ben Ashba		BORING ID: 99DPT-01	
		DRILLER: William J. Miller			
NORTHING: 679,625.00	EASTING: 2,482,585.00	CREW: Corey Futral			
SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION: SE corner of Gas USTs			LAND ELEV.: NM	
DRILL MACHINE: Power Probe	METHOD: CPT / DPT		0 HOUR DTW: N/A	BORING DEPTH: 8.0	
START DATE: 7/31/12	FINISH DATE: 7/31/12		24 HOUR DTW: N/A	ROCK DEPTH: --	

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm) 0 250 500 750 1,000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0			▲65		GW			GRAVEL fill.	
1.0			▲65	DPT-01 (1-2')			1.0		
2.0			▲0		SP			Brown, SAND.	
4.0			▲11				4.5		
6.0			▲6		CL			Orange and gray, CLAY w/tr. sand decreasing w/depth. HCO ~5-8' BLS.	
7.0			▲6	DPT-01 (7-8')					
8.0							8.0	Boring Terminated at Depth 8.0 ft	

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO_LOG_212077_GREENVILLE-PSAS_U3315.GPJ_CATLIN.GDT_9/5/12

BORING LOG

CATLIN Engineers and Scientists
Wilmington, NC
WBS Element: 35781.1.2
State Project: U-3315

PROJECT NO.:	212077	STATE:	NC	COUNTY:	Pitt	LOCATION:	Greenville
PROJECT NAME:	Parcels 97, 98, and 99 - Walter L. Williams - HESS			LOGGED BY:	Ben Ashba	BORING ID:	99DPT-02
				DRILLER:	William J. Miller		
NORTHING:	679,631.00	EASTING:	2,482,557.00	CREW:	Corey Futral		
SYSTEM:	NCSP NAD 83 (USft)	BORING LOCATION:	SW corner of Gas USTs			LAND ELEV.:	NM
DRILL MACHINE:	Power Probe	METHOD:	CPT / DPT	0 HOUR DTW:	N/A	BORING DEPTH:	8.0
START DATE:	7/31/12	FINISH DATE:	7/31/12	24 HOUR DTW:	N/A	ROCK DEPTH:	--

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm) 0 250 500 750 1,000	LAB.	USCS	LOG	SOIL AND ROCK DESCRIPTION	DEPTH	ELEVATION
							LAND SURFACE	0.0	
0.0			▲22		GW		GRAVEL fill w/Bricks.	1.0	
2.0			▲21		SP		Lt gray, f. SAND. Slight HCO @ 3-4.5ft.	4.5	
3.0			▲21	DPT-02 (3-4')					
4.0									
			▲5		CL		Orange and gray, CLAY w/tr. f. sand. HCO @ 6ft.	8.0	
6.0			▲0						
8.0							Boring Terminated at Depth 8.0 ft		

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIBO LOG 212077 GREENVILLE PSAS U3315.GPJ CATLIN.GDT 9/5/12

BORING LOG

CATLIN Engineers and Scientists
Wilmington, NC

WBS Element: 35781.1.2
State Project: U-3315

PROJECT NO.: 212077	STATE: NC	COUNTY: Pitt		LOCATION: Greenville	
PROJECT NAME: Parcels 97, 98, and 99 - Walter L. Williams - HESS		LOGGED BY: Ben Ashba		BORING ID: 99DPT-03	
		DRILLER: William J. Miller			
NORTHING: 679,661.00	EASTING: 2,482,564.00	CREW: Corey Futral			
SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION: NW corner of Gas UST Basin			LAND ELEV.: NM	
DRILL MACHINE: Power Probe	METHOD: CPT / DPT		0 HOUR DTW: N/A	BORING DEPTH: 8.0	
START DATE: 7/31/12	FINISH DATE: 7/31/12		24 HOUR DTW: N/A	ROCK DEPTH: --	

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm) 0 250 500 750 1,000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0					GW			ASPHALT and GRAVEL fill.	
			▲28				1.0		
2.0					SP			Lt brown, f. SAND w/tr. silt and clay. Strong HCO throughout.	
			▲34				3.0		
4.0					SC/ CL			Gray and brown, Clayey SAND grading to Sandy CLAY. Decreasing sand w/depth.	
			▲452						
6.0			▲578	DPT-03 (6-7')					
7.0			▲578		CH		7.0	Gray w/orange mottling, CLAY.	
8.0							8.0	Boring Terminated at Depth 8.0 ft	

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO.LOG 212077 GREENVILLE-PSAS U3315.GPJ CATLIN.GDT 9/5/12

BORING LOG

CATLIN Engineers and Scientists
Wilmington, NC
WBS Element: 35781.1.2
State Project: U-3315

PROJECT NO.: 212077	STATE: NC	COUNTY: Pitt		LOCATION: Greenville	
PROJECT NAME: Parcels 97, 98, and 99 - Walter L. Williams - HESS		LOGGED BY: Ben Ashba		BORING ID: 99DPT-04	
		DRILLER: William J. Miller			
NORTHING: 679,625.00	EASTING: 2,482,602.00	CREW: Corey Futral			
SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION: Near SW Dispenser Island			LAND ELEV.: NM	
DRILL MACHINE: Power Probe	METHOD: CPT / DPT		0 HOUR DTW: N/A	BORING DEPTH: 8.0	
START DATE: 7/31/12	FINISH DATE: 7/31/12		24 HOUR DTW: N/A	ROCK DEPTH: --	

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm) 0 250 500 750 1,000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0			0		GW			ASPHALT and GRAVEL fill w/Bricks.	
							1.5		
2.0			0		SP			Brown to lt brown, SAND w/tr. silt to tr. clay below 4ft.	
4.0			0						
			0				5.0		
6.0					SC/CL			Sandy CLAY to Clayey SAND.	
			0				6.0		
7.0			0	DPT-04 (7-8')	CL			Brown grading to gray, CLAY w/tr. sand and interbedded layers of sandy clay.	
8.0							8.0		
								Boring Terminated at Depth 8.0 ft	

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 212077 GREENVILLE-PSAS U3315.GPJ CATLIN.GDT 9/5/12

BORING LOG

CATLIN Engineers and Scientists
Wilmington, NC
WBS Element: 35781.1.2
State Project: U-3315

PROJECT NO.: 212077	STATE: NC	COUNTY: Pitt		LOCATION: Greenville	
PROJECT NAME: Parcels 97, 98, and 99 - Walter L. Williams - HESS		LOGGED BY: Ben Ashba		BORING ID: 99DPT-05	
		DRILLER: William J. Miller			
NORTHING: 679,639.00	EASTING: 2,482,602.00	CREW: Corey Futral			
SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION: Near NW Dispenser			LAND ELEV.: NM	
DRILL MACHINE: Power Probe	METHOD: CPT / DPT		0 HOUR DTW: N/A	BORING DEPTH: 8.0	
START DATE: 7/31/12	FINISH DATE: 7/31/12		24 HOUR DTW: N/A	ROCK DEPTH: --	

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm) 0 250 500 750 1,000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0					GW			CONCRETE and ASPHALT. GRAVEL fill.	
			▲0				1.0		
2.0					SP			Tan, f. SAND w/tr. silt.	
			▲0				3.0		
4.0					SC/ CL			Orange-brown grading to dk gray, Clayey SAND to Sandy CLAY. Black possible petro staining, HCO @ 3.8-8' BLS.	
			▲1	DPT-05 (4-5')					
5.0									
			▲1						
6.0							6.0		
					CL			CLAY w/tr. vf sand.	
			▲0						
8.0							8.0		
								Boring Terminated at Depth 8.0 ft	

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 212077 GREENVILLE-PSAS U3315.GPJ CATLIN.GDT 9/5/12

BORING LOG

CATLIN Engineers and Scientists
Wilmington, NC

WBS Element: 35781.1.2
State Project: U-3315

PROJECT NO.:	212077	**STATE:** NC	**COUNTY:** Pitt	**LOCATION:**	Greenville
PROJECT NAME:	Parcels 97, 98, and 99 - Walter L. Williams - HESS		**LOGGED BY:** Ben Ashba	**BORING ID:**	99DPT-06
			DRILLER: William J. Miller		
NORTHING:	679,641.00	**EASTING:** 2,482,641.00	**CREW:** Corey Futral		
SYSTEM:	NCSP NAD 83 (USft)	**BORING LOCATION:** Near NE Dispenser Island		**LAND ELEV.:**	NM
DRILL MACHINE:	Power Probe	**METHOD:** CPT / DPT	**0 HOUR DTW:** N/A	**BORING DEPTH:**	19.0
START DATE:	7/31/12	**FINISH DATE:** 7/31/12	**24 HOUR DTW:** N/A	**ROCK DEPTH:**	--

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm) 0 250 500 750 1,000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0			▲0		GW		1.0	ASPHALT. Concrete and GRAVEL fill.	
2.0			▲1		SP		4.5	Brown and tan, f. SAND w/tr. silt.	
4.0			▲5		SP/SC		6.0	SAND w/tr. clay grading to Clayey SAND.	
6.0			▲397	DPT-06 (6-7')	SC/CL		6.5	Clayey SAND to Sandy CLAY.	
7.0			▲397		CL		8.0	Orange and gray, CLAY w/tr. sand. Slight HCO.	
8.0									
								Blind Point to 19' BLS. REFUSAL @ 19' BLS.	
19.0							19.0	Boring Terminated at Depth 19.0 ft	

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO.LOG 212077_GREENVILLE-PSAS_U3315.GPJ CATLIN.GDT 9/5/12

BORING LOG

CATLIN Engineers and Scientists
Wilmington, NC
WBS Element: 35781.1.2
State Project: U-3315

PROJECT NO.: 212077	STATE: NC	COUNTY: Pitt		LOCATION: Greenville	
PROJECT NAME: Parcels 97, 98, and 99 - Walter L. Williams - HESS		LOGGED BY: Ben Ashba		BORING ID: 99DPT-07	
		DRILLER: William J. Miller			
NORTHING: 679,617.00	EASTING: 2,482,636.00	CREW: Corey Futral			
SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION: Near SE Dispenser			LAND ELEV.: NM	
DRILL MACHINE: Power Probe	METHOD: CPT / DPT		0 HOUR DTW: N/A	BORING DEPTH: 8.0	
START DATE: 7/31/12	FINISH DATE: 7/31/12		24 HOUR DTW: N/A	ROCK DEPTH: --	

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm) 0 250 500 750 1,000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0			▲1		GW		1.0	ASPHALT. Concrete and GRAVEL fill.	
2.0			▲1		SP		4.5	Black to lt brown, f. SAND w/tr. silt. Moist ~ 4' BLS.	
4.0		M	▲3		SC/ CL		5.5	Dk tan to gray w/orange mottling, Sandy CLAY to Clayey SAND.	
6.0		M	▲4	DPT-07 (6-7')	CL		8.0	Dk gray w/orange mottling, CLAY w/tr. sand.	
7.0			▲4						
8.0								Boring Terminated at Depth 8.0 ft	

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIBO.LOG 212077 GREENVILLE-PSAS U3315.GPJ CATLIN.GDT 9/5/12

BORING LOG

CATLIN Engineers and Scientists
Wilmington, NC
WBS Element: 35781.1.2
State Project: U-3315

PROJECT NO.: 212077	STATE: NC	COUNTY: Pitt		LOCATION: Greenville	
PROJECT NAME: Parcels 97, 98, and 99 - Walter L. Williams - HESS		LOGGED BY: Ben Ashba		BORING ID: 99DPT-08	
		DRILLER: William J. Miller			
NORTHING: 679,679.00	EASTING: 2,482,550.00	CREW: Corey Futral			
SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION: 25' W of diesel dispenser			LAND ELEV.: NM	
DRILL MACHINE: Power Probe	METHOD: CPT / DPT		0 HOUR DTW: N/A	BORING DEPTH: 8.0	
START DATE: 7/31/12	FINISH DATE: 7/31/12		24 HOUR DTW: N/A	ROCK DEPTH: --	

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm) 0 250 500 750 1,000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0					GW		0.5	ASPHALT and GRAVEL fill.	
			▲0		SW		1.5	Lt brown, f. to cse SAND.	
2.0					GW		2.5	GRAVEL fill and interlayered red brick.	
			▲2		SP		3.0	Tan, f. SAND w/tr. silt.	
4.0					CL		5.5	Dk and med. tan w/orange mottling, Sandy CLAY.	
			▲2						
6.0			▲68	DPT-08 (6-7')	CH			Dk gray w/orange mottling, CLAY. Strong HCO w/depth.	
7.0			▲68				8.0		
8.0								Boring Terminated at Depth 8.0 ft	

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 212077 GREENVILLE-PSAS U3315.GPJ CATLIN.GDT 9/5/12

BORING LOG

CATLIN Engineers and Scientists
Wilmington, NC
WBS Element: 35781.1.2
State Project: U-3315

PROJECT NO.: 212077	STATE: NC	COUNTY: Pitt		LOCATION: Greenville	
PROJECT NAME: Parcels 97, 98, and 99 - Walter L. Williams - HESS		LOGGED BY: Ben Ashba		BORING ID: 99DPT-09	
		DRILLER: William J. Miller			
NORTHING: 679,676.00	EASTING: 2,482,565.00	CREW: Corey Futral			
SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION: Adjacent to diesel and kerosene (W side)			LAND ELEV.: NM	
DRILL MACHINE: Power Probe	METHOD: CPT / DPT		0 HOUR DTW: N/A	BORING DEPTH: 8.0	
START DATE: 7/31/12	FINISH DATE: 7/31/12		24 HOUR DTW: N/A	ROCK DEPTH: --	

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm) 0 250 500 750 1,000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0			▲2		SW		1.0	F. to cse SAND w/layers of black.	
2.0			▲9		SP		3.0	Tan grading to lt brown, f. SAND w/tr. silt.	
4.0			▲44		SC/CL		6.0	Lt to dk brown, Clayey SAND grading to Sandy CLAY. Strong HCO @ 5' BLS and below.	
6.0			▲560	DPT-09 (6-7')	CH		8.0	Dk gray, CLAY. Strong HCO.	
7.0			▲560						
8.0								Boring Terminated at Depth 8.0 ft	

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 212077 GREENVILLE-PSAS U3315.GPJ CATLIN.GDT 9/5/12

BORING LOG

CATLIN Engineers and Scientists
Wilmington, NC

WBS Element: 35781.1.2
State Project: U-3315

PROJECT NO.:	212077	STATE: NC	COUNTY: Pitt	LOCATION:	Greenville
PROJECT NAME:	Parcels 97, 98, and 99 - Walter L. Williams - HESS		LOGGED BY: Ben Ashba	BORING ID:	99DPT-10
			DRILLER: William J. Miller		
NORTHING:	679,665.00	EASTING: 2,482,540.00	CREW: Corey Futral		
SYSTEM: NCSP NAD 83 (USft)		BORING LOCATION: 25' W DPT-03		LAND ELEV.:	NM
DRILL MACHINE:	Power Probe	METHOD: CPT / DPT	0 HOUR DTW: N/A	BORING DEPTH:	8.0
START DATE:	7/31/12	FINISH DATE: 7/31/12	24 HOUR DTW: N/A	ROCK DEPTH:	--

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm) 0 250 500 750 1,000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0					GW		0.5	ASPHALT.	
			▲2		SP		1.5	Brown, f. SAND.	
					SW		2.0	Black ? w/red brick interlayered.	
2.0					SP		3.0	Lt brown, f. SAND w/tr. silt.	
			▲2						
4.0					SC/ CL		6.5	Brown to gray w/orange mottling, Clayey SAND to Sandy CLAY.	
			▲4						
6.0									
			▲45						
7.0					CH		8.0	Lt to dk gray w/orange mottling, CLAY.	
			▲45	DPT-10 (6-7')					
8.0								Boring Terminated at Depth 8.0 ft	

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 212077 GREENVILLE-PSAS U3315.GPJ CATLIN.GDT 9/5/12

BORING LOG

CATLIN Engineers and Scientists
Wilmington, NC

WBS Element: 35781.1.2
State Project: U-3315

PROJECT NO.: 212077	STATE: NC	COUNTY: Pitt		LOCATION: Greenville	
PROJECT NAME: Parcels 97, 98, and 99 - Walter L. Williams - HESS		LOGGED BY: Ben Ashba		BORING ID: 99DPT-11	
		DRILLER: William J. Miller			
NORTHING: 679,638.00	EASTING: 2,482,534.00	CREW: Corey Futral			
SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION: ~25' W of DPT-02 and ~25' S of DPT-10			LAND ELEV.: NM	
DRILL MACHINE: Power Probe	METHOD: CPT / DPT		0 HOUR DTW: N/A	BORING DEPTH: 8.0	
START DATE: 7/31/12	FINISH DATE: 7/31/12		24 HOUR DTW: N/A	ROCK DEPTH: --	

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm) 0 250 500 750 1,000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0					GW			BRICK, RUBBLE, CONCRETE, ASPHALT.	
2.0									
4.0							4.0		
		Sat.	▲2		CL			Dk brown grading to dk gray, Sandy CLAY. Strong HCO @ 4.5' BLS.	
6.0			▲22	DPT-11 (6-7')					
7.0			▲22		CH		7.0	Dk gray w/orange mottling, CLAY. Strong HCO.	
8.0							8.0	Boring Terminated at Depth 8.0 ft	

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO_LOG_212077_GREENVILLE-PSAS_U3315.GPJ_CATLIN.GDT_9/5/12

BORING LOG

CATLIN Engineers and Scientists
Wilmington, NC

WBS Element: 35781.1.2
State Project: U-3315

PROJECT NO.: 212077	STATE: NC	COUNTY: Pitt		LOCATION: Greenville	
PROJECT NAME: Parcels 97, 98, and 99 - Walter L. Williams - HESS		LOGGED BY: Ben Ashba		BORING ID: 99DPT-12	
		DRILLER: William J. Miller			
NORTHING: 679,627.00	EASTING: 2,482,668.00	CREW: Corey Futral			
SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION: ~25' E of DPT-06			LAND ELEV.: NM	
DRILL MACHINE: Power Probe	METHOD: CPT / DPT		0 HOUR DTW: N/A	BORING DEPTH: 8.0	
START DATE: 7/31/12	FINISH DATE: 7/31/12		24 HOUR DTW: N/A	ROCK DEPTH: --	

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm) 0 250 500 750 1,000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0					GW		0.5	ASPHALT/GRAVEL fill.	
			▲1						
2.0					SP			Dk to lt tan and brown, f. SAND w/tr. silt.	
			▲1				4.5		
4.0					SC		5.0	Dk brown, Clayey SAND. Gradational contact w/below. Slight HCO.	
			▲4						
6.0			▲52	DPT-12 (6-7')	CL			Sandy CLAY. Dark gray w/orange mottling. Strong HCO @ 6.5ft. BLS.	
7.0			▲52				8.0		
8.0								Boring Terminated at Depth 8.0 ft	

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIBO LOG 212077 GREENVILLE-PSAS U3315.GPJ CATLIN.GDT 9/5/12

BORING LOG

CATLIN Engineers and Scientists
Wilmington, NC
WBS Element: 35781.1.2
State Project: U-3315

PROJECT NO.: 212077	STATE: NC	COUNTY: Pitt		LOCATION: Greenville	
PROJECT NAME: Parcels 97, 98, and 99 - Walter L. Williams - HESS		LOGGED BY: Ben Ashba		BORING ID: 99DPT-13	
		DRILLER: William J. Miller			
NORTHING: 679,675.00	EASTING: 2,482,591.00	CREW: Corey Futral			
SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION: @ SW corner of Bldg			LAND ELEV.: NM	
DRILL MACHINE: Power Probe	METHOD: CPT / DPT		0 HOUR DTW: 5.0	BORING DEPTH: 19.5	
START DATE: 7/31/12	FINISH DATE: 7/31/12		24 HOUR DTW: N/A	ROCK DEPTH: --	

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm) 0 250 500 750 1,000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0			▲0		GW		0.5	ASPHALT.	
2.0			▲23		SP		3.5	Lt tan grading to med. tan, f. SAND w/tr. silt.	
4.0			▲86	▽	SC		4.0	Gray, Clayey SAND. Sand content decreases w/depth. Strong HCO.	
6.0			1,000+▲	DPT-13 (6-7')			6.0	Dark gray, Sandy CLAY. Strong HCO.	
7.0			1,000+▲						
8.0					CH			Dk gray, CLAY. Strong HCO.	
10.0							10.5		
12.0					CH			Dark gray CLAY w/orange staining. No HCO.	
14.0							14.5		
16.0					CL		16.0	Sandy CLAY. Still dry.	
18.0					SC			Clayey SAND w/increase in clay w/depth. Saturated ~18' BLS.	
19.5							19.5	Boring Terminated at Depth 19.5 ft	

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIBO LOG_212077_GREENVILLE-PSAS_U3315.GPJ_CATLIN.GDT_9/5/12

BORING LOG

CATLIN Engineers and Scientists
Wilmington, NC
WBS Element: 35781.1.2
State Project: U-3315

PROJECT NO.: 212077	STATE: NC	COUNTY: Pitt		LOCATION: Greenville	
PROJECT NAME: Parcels 97, 98, and 99 - Walter L. Williams - HESS		LOGGED BY: Ben Ashba		BORING ID: 99DPT-14	
		DRILLER: William J. Miller			
NORTHING: 679,593.00	EASTING: 2,482,720.00	CREW: Corey Futral			
SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION: @ CB 1004			LAND ELEV.: NM	
DRILL MACHINE: Power Probe	METHOD: CPT / DPT		0 HOUR DTW: 5.7	BORING DEPTH: 20.0	
START DATE: 7/31/12	FINISH DATE: 7/31/12		24 HOUR DTW: N/A	ROCK DEPTH: --	

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm) 0 250 500 750 1,000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0					GW		0.5	ASPHALT.	
			▲1		SP			Lt brown to lt tan, f. SAND w/tr. silt.	
2.0							3.5		
			▲0		SC/ CL			Brown w/orange, Clayey SAND to Sandy CLAY.	
4.0			▲0	DPT-14 (4-4.4')			5.0		
4.4									
			▲0	▽	CH			Lt gray w/tr. orange mottling, CLAY.	
6.0									
			▲1				8.0		
8.0								Blind Point pushed to 20' BLS.	
20.0							20.0	Boring Terminated at Depth 20.0 ft	

▽ = 0hr. DTW ▼ = 24hr. DTW

APPENDIX C

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

Laboratory Report of Analysis

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

Report Number: **31202433**

Client Project: **NCDOT Parcel 99**

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: 2012.08.15 11:39:26 -04'00'

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

Print Date: 08/15/2012

N.C. Certification # 481

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
M2	Software did not integrate peak
M3	Incorrect baseline construction (i.e. not all of peak included; two peaks integrated as one)
M4	Pattern integration required (i.e. DRO, GRO, PCB, Toxaphene and Technical Chlordane)
M5	Other - Explained in case narrative

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

Print Date: 08/15/2012

N.C. Certification # 481

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
99DPT-14	31202433001	07/31/2012 17:00	08/01/2012 16:55	Water
99DPT-01 (1-2ft)	31202433002	07/31/2012 07:45	08/01/2012 16:55	Soil-Solid as dry weight
99DPT-01 (7-8ft)	31202433003	07/31/2012 08:00	08/01/2012 16:55	Soil-Solid as dry weight
99DPT-02 (3-4ft)	31202433004	07/31/2012 08:20	08/01/2012 16:55	Soil-Solid as dry weight
99DPT-03 (6-7ft)	31202433005	07/31/2012 08:50	08/01/2012 16:55	Soil-Solid as dry weight
99DPT-04 (7-8ft)	31202433006	07/31/2012 09:10	08/01/2012 16:55	Soil-Solid as dry weight
99DPT-05 (4-5ft)	31202433007	07/31/2012 09:30	08/01/2012 16:55	Soil-Solid as dry weight
99DPT-06 (6-7ft)	31202433008	07/31/2012 10:00	08/01/2012 16:55	Soil-Solid as dry weight
99DPT-07 (6-7ft)	31202433009	07/31/2012 11:40	08/01/2012 16:55	Soil-Solid as dry weight
99DPT-08 (6-7ft)	31202433010	07/31/2012 12:10	08/01/2012 16:55	Soil-Solid as dry weight
99DPT-09 (6-7ft)	31202433011	07/31/2012 12:30	08/01/2012 16:55	Soil-Solid as dry weight
99DPT-10 (6-7ft)	31202433012	07/31/2012 12:50	08/01/2012 16:55	Soil-Solid as dry weight
99DPT-11 (6-7ft)	31202433013	07/31/2012 13:10	08/01/2012 16:55	Soil-Solid as dry weight
99DPT-12 (6-7ft)	31202433014	07/31/2012 13:45	08/01/2012 16:55	Soil-Solid as dry weight
99DPT-13 (6-7ft)	31202433015	07/31/2012 15:00	08/01/2012 16:55	Soil-Solid as dry weight
99DPT-14 (4-4.4ft)	31202433016	07/31/2012 16:40	08/01/2012 16:55	Soil-Solid as dry weight
99DPT-13	31202433017	07/31/2012 15:15	08/01/2012 16:55	Water
Trip Blank (Not on CoC)	31202433018	07/31/2012 00:00	08/01/2012 16:55	Water

Print Date: 08/15/2012

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Detectable Results Summary

Client Sample ID: **99DPT-14**
Lab Sample ID: 31202433001-D
EPA 625

Parameter	Result	Units	
Benzo(a)anthracene	3.57	ug/L	J
Benzo(b)fluoranthene	3.57	ug/L	J
Bis(2-Ethylhexyl)phthalate	2.33	ug/L	J
Chrysene	5.03	ug/L	J
Fluoranthene	19.9	ug/L	
Phenanthrene	18.8	ug/L	
Pyrene	14.0	ug/L	

Client Sample ID: **99DPT-02 (3-4ft)**
Lab Sample ID: 31202433004-C
SW-846 8015C DRO

Parameter	Result	Units
Diesel Range Organics (DRO)	8.75	mg/kg

Client Sample ID: **99DPT-03 (6-7ft)**
Lab Sample ID: 31202433005-C
SW-846 8015C DRO
SW-846 8015C GRO

Parameter	Result	Units
Diesel Range Organics (DRO)	115	mg/kg
Gasoline Range Organics (GRO)	298	mg/kg

Client Sample ID: **99DPT-04 (7-8ft)**
Lab Sample ID: 31202433006-A
SW-846 8015C GRO

Parameter	Result	Units
Gasoline Range Organics (GRO)	5.88	mg/kg

Client Sample ID: **99DPT-06 (6-7ft)**
Lab Sample ID: 31202433008-C
SW-846 8015C DRO
SW-846 8015C GRO

Parameter	Result	Units
Diesel Range Organics (DRO)	16.7	mg/kg
Gasoline Range Organics (GRO)	164	mg/kg

Client Sample ID: **99DPT-08 (6-7ft)**
Lab Sample ID: 31202433010-C
SW-846 8015C DRO
SW-846 8015C GRO

Parameter	Result	Units
Diesel Range Organics (DRO)	18.7	mg/kg
Gasoline Range Organics (GRO)	44.5	mg/kg

Client Sample ID: **99DPT-09 (6-7ft)**
Lab Sample ID: 31202433011-C
SW-846 8015C DRO
SW-846 8015C GRO

Parameter	Result	Units
Diesel Range Organics (DRO)	146	mg/kg
Gasoline Range Organics (GRO)	569	mg/kg

Client Sample ID: **99DPT-10 (6-7ft)**
Lab Sample ID: 31202433012-C
SW-846 8015C DRO
SW-846 8015C GRO

Parameter	Result	Units
Diesel Range Organics (DRO)	10.4	mg/kg
Gasoline Range Organics (GRO)	39.3	mg/kg

Client Sample ID: **99DPT-11 (6-7ft)**
Lab Sample ID: 31202433013-C
SW-846 8015C DRO
SW-846 8015C GRO

Parameter	Result	Units
Diesel Range Organics (DRO)	8.09	mg/kg
Gasoline Range Organics (GRO)	15.9	mg/kg

Client Sample ID: **99DPT-12 (6-7ft)**
Lab Sample ID: 31202433014-A
SW-846 8015C GRO

Parameter	Result	Units
Gasoline Range Organics (GRO)	51.7	mg/kg

Client Sample ID: **99DPT-13 (6-7ft)**
Lab Sample ID: 31202433015-C
SW-846 8015C DRO

Parameter	Result	Units
Diesel Range Organics (DRO)	67.2	mg/kg

Print Date: 08/15/2012

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Detectable Results Summary

Client Sample ID: **99DPT-14 (4-4.4ft)**				
Lab Sample ID: 31202433016-A	Parameter	Result	Units	
SW-846 8015C GRO	Gasoline Range Organics (GRO)	1160	mg/kg	
Client Sample ID: **99DPT-13**				
Lab Sample ID: 31202433017-D	Parameter	Result	Units	
EPA 625	Bis(2-Ethylhexyl)phthalate	2.46	ug/L	J
	Naphthalene	49.5	ug/L	
SM 6200-B	1,2,4-Trimethylbenzene	461	ug/L	
	1,3,5-Trimethylbenzene	129	ug/L	
	4-Isopropyltoluene	8.00	ug/L	J
	Benzene	412	ug/L	
	Ethyl Benzene	441	ug/L	
	Isopropylbenzene (Cumene)	22.8	ug/L	
	Naphthalene	98.8	ug/L	
	Toluene	373	ug/L	
	Xylene (total)	1400	ug/L	
	cis-1,2-Dichloroethene	6.40	ug/L	J
	m,p-Xylene	1020	ug/L	
	n-Propylbenzene	76.0	ug/L	
	o-Xylene	386	ug/L	
	sec-Butylbenzene	5.20	ug/L	J
Client Sample ID: **Trip Blank (Not on CoC)**				
Lab Sample ID: 31202433018-A	Parameter	Result	Units	
SM 6200-B	Methylene chloride	0.450	ug/L	J

SGS ANALYTICAL PERSPECTIVES

Results of 99DPT-14

Client Sample ID: **99DPT-14**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433001-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 17:00
Received Date: 08/01/2012 16:55
Matrix: Water

Results by SM 6200-B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.104	0.500	ug/L	1	08/6/2012 15:38
1,1,1-Trichloroethane	ND	U	0.123	0.500	ug/L	1	08/6/2012 15:38
1,1,2,2-Tetrachloroethane	ND	U	0.156	0.500	ug/L	1	08/6/2012 15:38
1,1,2-Trichloroethane	ND	U	0.126	0.500	ug/L	1	08/6/2012 15:38
1,1-Dichloroethane	ND	U	0.165	0.500	ug/L	1	08/6/2012 15:38
1,1-Dichloroethene	ND	U	0.212	0.500	ug/L	1	08/6/2012 15:38
1,1-Dichloropropene	ND	U	0.112	0.500	ug/L	1	08/6/2012 15:38
1,2,3-Trichlorobenzene	ND	U	0.110	0.500	ug/L	1	08/6/2012 15:38
1,2,3-Trichloropropane	ND	U	0.212	0.500	ug/L	1	08/6/2012 15:38
1,2,4-Trichlorobenzene	ND	U	0.0913	0.500	ug/L	1	08/6/2012 15:38
1,2,4-Trimethylbenzene	ND	U	0.0961	0.500	ug/L	1	08/6/2012 15:38
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1	08/6/2012 15:38
1,2-Dibromoethane	ND	U	0.120	0.500	ug/L	1	08/6/2012 15:38
1,2-Dichlorobenzene	ND	U	0.137	0.500	ug/L	1	08/6/2012 15:38
1,2-Dichloroethane	ND	U	0.167	0.500	ug/L	1	08/6/2012 15:38
1,2-Dichloropropane	ND	U	0.163	0.500	ug/L	1	08/6/2012 15:38
1,3,5-Trimethylbenzene	ND	U	0.113	0.500	ug/L	1	08/6/2012 15:38
1,3-Dichlorobenzene	ND	U	0.103	0.500	ug/L	1	08/6/2012 15:38
1,3-Dichloropropane	ND	U	0.189	0.500	ug/L	1	08/6/2012 15:38
1,4-Dichlorobenzene	ND	U	0.130	0.500	ug/L	1	08/6/2012 15:38
2,2-Dichloropropane	ND	U	0.393	0.500	ug/L	1	08/6/2012 15:38
2-Chlorotoluene	ND	U	0.113	0.500	ug/L	1	08/6/2012 15:38
4-Chlorotoluene	ND	U	0.125	0.500	ug/L	1	08/6/2012 15:38
4-Isopropyltoluene	ND	U	0.0769	0.500	ug/L	1	08/6/2012 15:38
Benzene	ND	U	0.113	0.500	ug/L	1	08/6/2012 15:38
Bromobenzene	ND	U	0.110	0.500	ug/L	1	08/6/2012 15:38
Bromochloromethane	ND	U	0.211	0.500	ug/L	1	08/6/2012 15:38
Bromodichloromethane	ND	U	0.110	0.500	ug/L	1	08/6/2012 15:38
Bromoform	ND	U	0.0974	0.500	ug/L	1	08/6/2012 15:38
Bromomethane	ND	U	0.237	0.500	ug/L	1	08/6/2012 15:38
n-Butylbenzene	ND	U	0.0769	0.500	ug/L	1	08/6/2012 15:38
Carbon tetrachloride	ND	U	0.101	0.500	ug/L	1	08/6/2012 15:38
Chlorobenzene	ND	U	0.116	0.500	ug/L	1	08/6/2012 15:38
Chloroethane	ND	U	0.311	0.500	ug/L	1	08/6/2012 15:38
Chloroform	ND	U	0.139	0.500	ug/L	1	08/6/2012 15:38
Chloromethane	ND	U	0.448	0.500	ug/L	1	08/6/2012 15:38
Dibromochloromethane	ND	U	0.134	0.500	ug/L	1	08/6/2012 15:38
Dibromomethane	ND	U	0.168	0.500	ug/L	1	08/6/2012 15:38
Dichlorodifluoromethane	ND	U	0.171	5.00	ug/L	1	08/6/2012 15:38
cis-1,3-Dichloropropene	ND	U	0.0767	0.500	ug/L	1	08/6/2012 15:38
trans-1,3-Dichloropropene	ND	U	0.0862	0.500	ug/L	1	08/6/2012 15:38
Diisopropyl Ether	ND	U	0.155	0.500	ug/L	1	08/6/2012 15:38
Ethyl Benzene	ND	U	0.0877	0.500	ug/L	1	08/6/2012 15:38
Hexachlorobutadiene	ND	U	0.0792	0.500	ug/L	1	08/6/2012 15:38

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Results of 99DPT-14

Client Sample ID: **99DPT-14**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433001-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 17:00
Received Date: 08/01/2012 16:55
Matrix: Water

Results by SM 6200-B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Isopropylbenzene (Cumene)	ND	U	0.0869	0.500	ug/L	1	08/6/2012 15:38
Methylene chloride	ND	U	0.152	5.00	ug/L	1	08/6/2012 15:38
Naphthalene	ND	U	0.0855	0.500	ug/L	1	08/6/2012 15:38
Styrene	ND	U	0.102	0.500	ug/L	1	08/6/2012 15:38
Tetrachloroethene	ND	U	0.155	0.500	ug/L	1	08/6/2012 15:38
Toluene	ND	U	0.133	0.500	ug/L	1	08/6/2012 15:38
Trichloroethene	ND	U	0.125	0.500	ug/L	1	08/6/2012 15:38
Trichlorofluoromethane	ND	U	0.137	0.500	ug/L	1	08/6/2012 15:38
Vinyl chloride	ND	U	0.124	0.500	ug/L	1	08/6/2012 15:38
Xylene (total)	ND	U	0.269	1.50	ug/L	1	08/6/2012 15:38
cis-1,2-Dichloroethene	ND	U	0.136	0.500	ug/L	1	08/6/2012 15:38
m,p-Xylene	ND	U	0.182	1.00	ug/L	1	08/6/2012 15:38
n-Propylbenzene	ND	U	0.113	0.500	ug/L	1	08/6/2012 15:38
o-Xylene	ND	U	0.0874	0.500	ug/L	1	08/6/2012 15:38
sec-Butylbenzene	ND	U	0.112	0.500	ug/L	1	08/6/2012 15:38
tert-Butyl methyl ether (MTBE)	ND	U	0.144	0.500	ug/L	1	08/6/2012 15:38
tert-Butylbenzene	ND	U	0.0855	0.500	ug/L	1	08/6/2012 15:38
trans-1,2-Dichloroethene	ND	U	0.223	0.500	ug/L	1	08/6/2012 15:38
Surrogates							
1,2-Dichloroethane-d4	100			64.0-140	%	1	08/6/2012 15:38
4-Bromofluorobenzene	100			85.0-115	%	1	08/6/2012 15:38
Toluene d8	102			82.0-117	%	1	08/6/2012 15:38

Batch Information

Analytical Batch: **VMS2448**
Analytical Method: **SM 6200-B**
Instrument: **MSD3**
Analyst: **BWS**
Analytical Date/Time: **08/06/2012 15:38**

Prep Batch: **VXX3765**
Prep Method: **SM 6200-B Prep**
Prep Date/Time: **08/06/2012 10:18**
Prep Initial Wt./Vol.: **40 mL**
Prep Extract Vol: **40 mL**

Print Date: 08/15/2012

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SGS ANALYTICAL PERSPECTIVES

Results of 99DPT-14

Client Sample ID: **99DPT-14**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433001-D
Lab Project ID: 31202433

Collection Date: 07/31/2012 17:00
Received Date: 08/01/2012 16:55
Matrix: Water

Results by EPA 625

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	U	1.87	5.41	ug/L	1	08/3/2012 23:45
2,4-Dinitrotoluene	ND	U	1.99	5.41	ug/L	1	08/3/2012 23:45
2,6-Dinitrotoluene	ND	U	2.03	5.41	ug/L	1	08/3/2012 23:45
2-Chloronaphthalene	ND	U	2.16	5.41	ug/L	1	08/3/2012 23:45
3,3'-Dichlorobenzidine	ND	U	1.89	10.8	ug/L	1	08/3/2012 23:45
4-Chlorophenyl phenyl ether	ND	U	2.66	5.41	ug/L	1	08/3/2012 23:45
Acenaphthene	ND	U	2.23	5.41	ug/L	1	08/3/2012 23:45
Acenaphthylene	ND	U	2.16	5.41	ug/L	1	08/3/2012 23:45
Anthracene	ND	U	2.09	5.41	ug/L	1	08/3/2012 23:45
Benzo(a)anthracene	**3.57**	J	2.12	5.41	ug/L	1	08/3/2012 23:45
Benzo(a)pyrene	ND	U	2.01	5.41	ug/L	1	08/3/2012 23:45
Benzo(b)fluoranthene	**3.57**	J	2.12	5.41	ug/L	1	08/3/2012 23:45
Benzo(g,h,i)perylene	ND	U	2.33	5.41	ug/L	1	08/3/2012 23:45
Benzo(k)fluoranthene	ND	U	2.50	5.41	ug/L	1	08/3/2012 23:45
Bis(2-Chloroethoxy)methane	ND	U	2.29	5.41	ug/L	1	08/3/2012 23:45
Bis(2-Chloroethyl)ether	ND	U	2.39	5.41	ug/L	1	08/3/2012 23:45
Bis(2-Chloroisopropyl)ether	ND	U	2.21	5.41	ug/L	1	08/3/2012 23:45
Bis(2-Ethylhexyl)phthalate	**2.33**	J	2.11	5.41	ug/L	1	08/3/2012 23:45
4-Bromophenyl phenyl ether	ND	U	2.21	5.41	ug/L	1	08/3/2012 23:45
Butyl benzyl phthalate	ND	U	2.05	5.41	ug/L	1	08/3/2012 23:45
Chrysene	**5.03**	J	2.38	5.41	ug/L	1	08/3/2012 23:45
Di-n-butyl phthalate	ND	U	2.07	5.41	ug/L	1	08/3/2012 23:45
Di-n-octyl phthalate	ND	U	1.58	5.41	ug/L	1	08/3/2012 23:45
Dibenz(a,h)anthracene	ND	U	2.19	5.41	ug/L	1	08/3/2012 23:45
Diethyl phthalate	ND	U	2.27	5.41	ug/L	1	08/3/2012 23:45
Dimethyl phthalate	ND	U	2.32	5.41	ug/L	1	08/3/2012 23:45
Diphenylamine	ND	U	2.19	5.41	ug/L	1	08/3/2012 23:45
Fluoranthene	**19.9**		2.19	5.41	ug/L	1	08/3/2012 23:45
Fluorene	ND	U	2.64	5.41	ug/L	1	08/3/2012 23:45
Hexachlorobenzene	ND	U	2.09	5.41	ug/L	1	08/3/2012 23:45
Hexachlorobutadiene	ND	U	1.65	5.41	ug/L	1	08/3/2012 23:45
Hexachlorocyclopentadiene	ND	U	0.853	10.8	ug/L	1	08/3/2012 23:45
Hexachloroethane	ND	U	1.52	5.41	ug/L	1	08/3/2012 23:45
Indeno(1,2,3-cd)pyrene	ND	U	2.19	5.41	ug/L	1	08/3/2012 23:45
Isophorone	ND	U	2.26	5.41	ug/L	1	08/3/2012 23:45
Naphthalene	ND	U	2.10	5.41	ug/L	1	08/3/2012 23:45
Nitrobenzene	ND	U	2.37	5.41	ug/L	1	08/3/2012 23:45
Phenanthrene	**18.8**		2.15	5.41	ug/L	1	08/3/2012 23:45
Pyrene	**14.0**		2.18	5.41	ug/L	1	08/3/2012 23:45
n-Nitrosodi-n-propylamine	ND	U	2.41	5.41	ug/L	1	08/3/2012 23:45
Surrogates							
2-Fluorobiphenyl	78.2			50.0-107	%	1	08/3/2012 23:45
Nitrobenzene-d5	75.6			46.0-118	%	1	08/3/2012 23:45

Print Date: 08/15/2012

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Results of 99DPT-14

Client Sample ID: **99DPT-14**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433001-D
Lab Project ID: 31202433

Collection Date: 07/31/2012 17:00
Received Date: 08/01/2012 16:55
Matrix: Water

Results by EPA 625

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Terphenyl-d14	53.9			22.1-142	%	1	08/3/2012 23:45

Batch Information

Analytical Batch: **XMS1623**
Analytical Method: **EPA 625**
Instrument: **MSD10**
Analyst: **CMP**
Analytical Date/Time: **08/03/2012 23:45**

Prep Batch: **XXX2882**
Prep Method: **EPA 625**
Prep Date/Time: **08/02/2012 15:33**
Prep Initial Wt./Vol.: **924 mL**
Prep Extract Vol: **5 mL**

Print Date: 08/15/2012

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Results of 99DPT-01 (1-2ft)

Client Sample ID: **99DPT-01 (1-2ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433002-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 07:45
Received Date: 08/01/2012 16:55
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	3.75	3.75	mg/kg	1	08/10/2012 15:09
Surrogates							
4-Bromofluorobenzene	112			70.0-130	%	1	08/10/2012 15:09

Batch Information

Analytical Batch: **VGC2064**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**
Analytical Date/Time: **08/10/2012 15:09**

Prep Batch: **VXX3800**
Prep Method: **SW-846 5035**
Prep Date/Time: **08/02/2012 14:04**
Prep Initial Wt./Vol.: **5.65 g**
Prep Extract Vol: **5 mL**

Print Date: 08/15/2012

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Results of 99DPT-01 (1-2ft)

Client Sample ID: **99DPT-01 (1-2ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433002-C
Lab Project ID: 31202433

Collection Date: 07/31/2012 07:45
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 94.40

Results by SW-846 8015C DRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND	U	6.53	6.53	mg/kg	1	08/7/2012 18:55
Surrogates							
o-Terphenyl	100			40.0-140	%	1	08/7/2012 18:55

Batch Information

Analytical Batch: **XGC2425**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**
Analytical Date/Time: **08/07/2012 18:55**

Prep Batch: **XXX2891**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/06/2012 09:17**
Prep Initial Wt./Vol.: **32.46 g**
Prep Extract Vol: **10 mL**

Print Date: 08/15/2012

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Results of 99DPT-01 (7-8ft)

Client Sample ID: **99DPT-01 (7-8ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433003-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 08:00
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 71.90

Results by SW-846 8015C GRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND	U	4.55	4.55	mg/kg	1	08/10/2012 15:34
Surrogates							
4-Bromofluorobenzene	109			70.0-130	%	1	08/10/2012 15:34

Batch Information

Analytical Batch: **VGC2064**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**
Analytical Date/Time: **08/10/2012 15:34**

Prep Batch: **VXX3800**
Prep Method: **SW-846 5035**
Prep Date/Time: **08/02/2012 14:05**
Prep Initial Wt./Vol.: **6.11 g**
Prep Extract Vol: **5 mL**

SGS ANALYTICAL PERSPECTIVES

Results of 99DPT-01 (7-8ft)

Client Sample ID: **99DPT-01 (7-8ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433003-C
Lab Project ID: 31202433

Collection Date: 07/31/2012 08:00
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 71.90

Results by SW-846 8015C DRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND	U	8.45	8.45	mg/kg	1	08/7/2012 19:23
Surrogates							
o-Terphenyl	94.0			40.0-140	%	1	08/7/2012 19:23

Batch Information

Analytical Batch: **XGC2425**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**
Analytical Date/Time: **08/07/2012 19:23**

Prep Batch: **XXX2891**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/06/2012 09:17**
Prep Initial Wt./Vol.: **32.91 g**
Prep Extract Vol: **10 mL**

Print Date: 08/15/2012

N.C. Certification # 481

Results of 99DPT-02 (3-4ft)

Client Sample ID: **99DPT-02 (3-4ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433004-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 08:20
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 90.60

Results by SW-846 8015C GRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND	U	3.65	3.65	mg/kg	1	08/10/2012 15:59
Surrogates							
4-Bromofluorobenzene	112			70.0-130	%	1	08/10/2012 15:59

Batch Information

Analytical Batch: **VGC2064**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**
Analytical Date/Time: **08/10/2012 15:59**

Prep Batch: **VXX3800**
Prep Method: **SW-846 5035**
Prep Date/Time: **08/02/2012 14:06**
Prep Initial Wt./Vol.: **6.05 g**
Prep Extract Vol: **5 mL**

Print Date: 08/15/2012

N.C. Certification # 481

Results of 99DPT-02 (3-4ft)

Client Sample ID: **99DPT-02 (3-4ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433004-C
Lab Project ID: 31202433

Collection Date: 07/31/2012 08:20
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 90.60

Results by SW-846 8015C DRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	**8.75**		7.18	7.18	mg/kg	1	08/7/2012 19:51
Surrogates							
o-Terphenyl	99.6			40.0-140	%	1	08/7/2012 19:51

Batch Information

Analytical Batch: **XGC2425**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**
Analytical Date/Time: **08/07/2012 19:51**

Prep Batch: **XXX2891**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/06/2012 09:17**
Prep Initial Wt./Vol.: **30.74 g**
Prep Extract Vol: **10 mL**

Print Date: 08/15/2012

N.C. Certification # 481

Results of 99DPT-03 (6-7ft)

Client Sample ID: **99DPT-03 (6-7ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433005-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 08:50
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 76.00

Results by SW-846 8015C GRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	**298**		37.8	37.8	mg/kg	10	08/13/2012 17:30
Surrogates							
4-Bromofluorobenzene	102			70.0-130	%	10	08/13/2012 17:30

Batch Information

Analytical Batch: **VGC2065**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**
Analytical Date/Time: **08/13/2012 17:30**

Prep Batch: **VXX3812**
Prep Method: **SW-846 5035**
Prep Date/Time: **08/02/2012 14:07**
Prep Initial Wt./Vol.: **6.97 g**
Prep Extract Vol: **5 mL**

Print Date: 08/15/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES

Results of 99DPT-03 (6-7ft)

Client Sample ID: **99DPT-03 (6-7ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433005-C
Lab Project ID: 31202433

Collection Date: 07/31/2012 08:50
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 76.00

Results by SW-846 8015C DRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	**115**		8.30	8.30	mg/kg	1	08/7/2012 20:19
Surrogates							
o-Terphenyl	95.0			40.0-140	%	1	08/7/2012 20:19

Batch Information

Analytical Batch: **XGC2425**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**
Analytical Date/Time: **08/07/2012 20:19**

Prep Batch: **XXX2891**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/06/2012 09:17**
Prep Initial Wt./Vol.: **31.7 g**
Prep Extract Vol: **10 mL**

Print Date: 08/15/2012

N.C. Certification # 481

Results of 99DPT-04 (7-8ft)

Client Sample ID: **99DPT-04 (7-8ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433006-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 09:10
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 68.40

Results by SW-846 8015C GRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	**5.88**		4.88	4.88	mg/kg	1	08/14/2012 14:23
Surrogates							
4-Bromofluorobenzene	107			70.0-130	%	1	08/14/2012 14:23

Batch Information

Analytical Batch: **VGC2067**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**
Analytical Date/Time: **08/14/2012 14:23**

Prep Batch: **VXX3822**
Prep Method: **SW-846 5035**
Prep Date/Time: **08/02/2012 14:08**
Prep Initial Wt./Vol.: **5.99 g**
Prep Extract Vol: **5 mL**

Print Date: 08/15/2012

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Results of 99DPT-04 (7-8ft)

Client Sample ID: **99DPT-04 (7-8ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433006-C
Lab Project ID: 31202433

Collection Date: 07/31/2012 09:10
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 68.40

Results by SW-846 8015C DRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND	U	9.71	9.71	mg/kg	1	08/7/2012 20:47
Surrogates							
o-Terphenyl	83.9			40.0-140	%	1	08/7/2012 20:47

Batch Information

Analytical Batch: **XGC2425**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**
Analytical Date/Time: **08/07/2012 20:47**

Prep Batch: **XXX2891**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/06/2012 09:17**
Prep Initial Wt./Vol.: **30.11 g**
Prep Extract Vol: **10 mL**

Print Date: 08/15/2012

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Results of 99DPT-05 (4-5ft)

Client Sample ID: **99DPT-05 (4-5ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433007-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 09:30
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 84.40

Results by SW-846 8015C GRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND	U	3.39	3.39	mg/kg	1	08/10/2012 17:15
Surrogates							
4-Bromofluorobenzene	108			70.0-130	%	1	08/10/2012 17:15

Batch Information

Analytical Batch: **VGC2064**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**
Analytical Date/Time: **08/10/2012 17:15**

Prep Batch: **VXX3800**
Prep Method: **SW-846 5035**
Prep Date/Time: **08/02/2012 14:09**
Prep Initial Wt./Vol.: **7 g**
Prep Extract Vol: **5 mL**

Print Date: 08/15/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES

Results of 99DPT-05 (4-5ft)

Client Sample ID: **99DPT-05 (4-5ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433007-C
Lab Project ID: 31202433

Collection Date: 07/31/2012 09:30
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 84.40

Results by SW-846 8015C DRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND	U	6.82	6.82	mg/kg	1	08/7/2012 21:15
Surrogates							
o-Terphenyl	94.3			40.0-140	%	1	08/7/2012 21:15

Batch Information

Analytical Batch: **XGC2425**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**
Analytical Date/Time: **08/07/2012 21:15**

Prep Batch: **XXX2891**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/06/2012 09:17**
Prep Initial Wt./Vol.: **34.76 g**
Prep Extract Vol: **10 mL**

Print Date: 08/15/2012

N.C. Certification # 481

Results of 99DPT-06 (6-7ft)

Client Sample ID: **99DPT-06 (6-7ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433008-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 10:00
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 73.10

Results by SW-846 8015C GRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	**164**		42.2	42.2	mg/kg	10	08/13/2012 17:55
Surrogates							
4-Bromofluorobenzene	102			70.0-130	%	10	08/13/2012 17:55

Batch Information

Analytical Batch: **VGC2065**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**
Analytical Date/Time: **08/13/2012 17:55**

Prep Batch: **VXX3812**
Prep Method: **SW-846 5035**
Prep Date/Time: **08/02/2012 14:10**
Prep Initial Wt./Vol.: **6.49 g**
Prep Extract Vol: **5 mL**

Print Date: 08/15/2012

N.C. Certification # 481

Results of 99DPT-06 (6-7ft)

Client Sample ID: **99DPT-06 (6-7ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433008-C
Lab Project ID: 31202433

Collection Date: 07/31/2012 10:00
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 73.10

Results by SW-846 8015C DRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	**16.7**		7.84	7.84	mg/kg	1	08/10/2012 1:36
Surrogates							
o-Terphenyl	82.2			40.0-140	%	1	08/10/2012 1:36

Batch Information

Analytical Batch: **XGC2435**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**
Analytical Date/Time: **08/10/2012 01:36**

Prep Batch: **XXX2905**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/09/2012 10:17**
Prep Initial Wt./Vol.: **34.92 g**
Prep Extract Vol: **10 mL**

Print Date: 08/15/2012

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Results of 99DPT-07 (6-7ft)

Client Sample ID: **99DPT-07 (6-7ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433009-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 11:40
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 77.40

Results by SW-846 8015C GRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND	U	4.01	4.01	mg/kg	1	08/10/2012 18:06
Surrogates							
4-Bromofluorobenzene	108			70.0-130	%	1	08/10/2012 18:06

Batch Information

Analytical Batch: **VGC2064**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**
Analytical Date/Time: **08/10/2012 18:06**

Prep Batch: **VXX3800**
Prep Method: **SW-846 5035**
Prep Date/Time: **08/02/2012 14:11**
Prep Initial Wt./Vol.: **6.45 g**
Prep Extract Vol: **5 mL**

Print Date: 08/15/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES

Results of 99DPT-07 (6-7ft)

Client Sample ID: **99DPT-07 (6-7ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433009-C
Lab Project ID: 31202433

Collection Date: 07/31/2012 11:40
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 77.40

Results by SW-846 8015C DRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND	U	8.13	8.13	mg/kg	1	08/10/2012 16:26
Surrogates							
o-Terphenyl	87.7			40.0-140	%	1	08/10/2012 16:26

Batch Information

Analytical Batch: **XGC2437**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**
Analytical Date/Time: **08/10/2012 16:26**

Prep Batch: **XXX2905**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/09/2012 10:17**
Prep Initial Wt./Vol.: **31.82 g**
Prep Extract Vol: **10 mL**

Print Date: 08/15/2012

N.C. Certification # 481

Results of 99DPT-08 (6-7ft)

Client Sample ID: **99DPT-08 (6-7ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433010-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 12:10
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 71.00

Results by SW-846 8015C GRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	**44.5**		4.80	4.80	mg/kg	1	08/10/2012 18:31
Surrogates							
4-Bromofluorobenzene	118			70.0-130	%	1	08/10/2012 18:31

Batch Information

Analytical Batch: **VGC2064**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**
Analytical Date/Time: **08/10/2012 18:31**

Prep Batch: **VXX3800**
Prep Method: **SW-846 5035**
Prep Date/Time: **08/02/2012 14:13**
Prep Initial Wt./Vol.: **5.87 g**
Prep Extract Vol: **5 mL**

Print Date: 08/15/2012

N.C. Certification # 481

Results of 99DPT-08 (6-7ft)

Client Sample ID: **99DPT-08 (6-7ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433010-C
Lab Project ID: 31202433

Collection Date: 07/31/2012 12:10
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 71.00

Results by SW-846 8015C DRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	**18.7**		8.83	8.83	mg/kg	1	08/10/2012 16:54
Surrogates							
o-Terphenyl	75.2			40.0-140	%	1	08/10/2012 16:54

Batch Information

Analytical Batch: **XGC2437**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**
Analytical Date/Time: **08/10/2012 16:54**

Prep Batch: **XXX2905**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/09/2012 10:17**
Prep Initial Wt./Vol.: **31.91 g**
Prep Extract Vol: **10 mL**

Print Date: 08/15/2012

N.C. Certification # 481

Results of 99DPT-09 (6-7ft)

Client Sample ID: **99DPT-09 (6-7ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433011-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 12:30
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 71.90

Results by SW-846 8015C GRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	**569**		176	176	mg/kg	40	08/13/2012 17:04
Surrogates							
4-Bromofluorobenzene	103			70.0-130	%	40	08/13/2012 17:04

Batch Information

Analytical Batch: **VGC2065**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**
Analytical Date/Time: **08/13/2012 17:04**

Prep Batch: **VXX3812**
Prep Method: **SW-846 5035**
Prep Date/Time: **08/02/2012 14:14**
Prep Initial Wt./Vol.: **6.32 g**
Prep Extract Vol: **5 mL**

Print Date: 08/15/2012

N.C. Certification # 481

Results of 99DPT-09 (6-7ft)

Client Sample ID: **99DPT-09 (6-7ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433011-C
Lab Project ID: 31202433

Collection Date: 07/31/2012 12:30
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 71.90

Results by SW-846 8015C DRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	**146**		8.59	8.59	mg/kg	1	08/10/2012 17:22
Surrogates							
o-Terphenyl	66.9			40.0-140	%	1	08/10/2012 17:22

Batch Information

Analytical Batch: **XGC2437**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**
Analytical Date/Time: **08/10/2012 17:22**

Prep Batch: **XXX2905**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/09/2012 10:17**
Prep Initial Wt./Vol.: **32.39 g**
Prep Extract Vol: **10 mL**

Print Date: 08/15/2012

N.C. Certification # 481

Results of 99DPT-10 (6-7ft)

Client Sample ID: **99DPT-10 (6-7ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433012-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 12:50
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 70.90

Results by SW-846 8015C GRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	**39.3**		4.68	4.68	mg/kg	1	08/13/2012 18:45
Surrogates							
4-Bromofluorobenzene	108			70.0-130	%	1	08/13/2012 18:45

Batch Information

Analytical Batch: **VGC2065**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**
Analytical Date/Time: **08/13/2012 18:45**

Prep Batch: **VXX3812**
Prep Method: **SW-846 5035**
Prep Date/Time: **08/02/2012 14:15**
Prep Initial Wt./Vol.: **6.03 g**
Prep Extract Vol: **5 mL**

Print Date: 08/15/2012

N.C. Certification # 481

Results of 99DPT-10 (6-7ft)

Client Sample ID: **99DPT-10 (6-7ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433012-C
Lab Project ID: 31202433

Collection Date: 07/31/2012 12:50
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 70.90

Results by SW-846 8015C DRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	**10.4**		9.10	9.10	mg/kg	1	08/10/2012 17:51
Surrogates							
o-Terphenyl	71.8			40.0-140	%	1	08/10/2012 17:51

Batch Information

Analytical Batch: **XGC2437**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**
Analytical Date/Time: **08/10/2012 17:51**

Prep Batch: **XXX2905**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/09/2012 10:17**
Prep Initial Wt./Vol.: **31.01 g**
Prep Extract Vol: **10 mL**

Print Date: 08/15/2012

N.C. Certification # 481

Results of 99DPT-11 (6-7ft)

Client Sample ID: **99DPT-11 (6-7ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433013-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 13:10
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 73.10

Results by SW-846 8015C GRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	**15.9**		4.26	4.26	mg/kg	1	08/13/2012 19:11
Surrogates							
4-Bromofluorobenzene	109			70.0-130	%	1	08/13/2012 19:11

Batch Information

Analytical Batch: **VGC2065**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**
Analytical Date/Time: **08/13/2012 19:11**

Prep Batch: **VXX3812**
Prep Method: **SW-846 5035**
Prep Date/Time: **08/02/2012 14:16**
Prep Initial Wt./Vol.: **6.43 g**
Prep Extract Vol: **5 mL**

Print Date: 08/15/2012

N.C. Certification # 481

Results of 99DPT-11 (6-7ft)

Client Sample ID: **99DPT-11 (6-7ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433013-C
Lab Project ID: 31202433

Collection Date: 07/31/2012 13:10
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 73.10

Results by SW-846 8015C DRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	**8.09**		7.80	7.80	mg/kg	1	08/10/2012 18:19
Surrogates							
o-Terphenyl	62.3			40.0-140	%	1	08/10/2012 18:19

Batch Information

Analytical Batch: **XGC2437**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**
Analytical Date/Time: **08/10/2012 18:19**

Prep Batch: **XXX2905**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/09/2012 10:17**
Prep Initial Wt./Vol.: **35.1 g**
Prep Extract Vol: **10 mL**

Print Date: 08/15/2012

N.C. Certification # 481

Results of 99DPT-12 (6-7ft)

Client Sample ID: **99DPT-12 (6-7ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433014-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 13:45
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 73.30

Results by SW-846 8015C GRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	51.7		8.99	8.99	mg/kg	2	08/14/2012 19:51
Surrogates							
4-Bromofluorobenzene	110			70.0-130	%	2	08/14/2012 19:51

Batch Information

Analytical Batch: **VGC2067**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**
Analytical Date/Time: **08/14/2012 19:51**

Prep Batch: **VXX3822**
Prep Method: **SW-846 5035**
Prep Date/Time: **08/02/2012 14:17**
Prep Initial Wt./Vol.: **6.07 g**
Prep Extract Vol: **5 mL**

Print Date: 08/15/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES

Results of 99DPT-12 (6-7ft)

Client Sample ID: **99DPT-12 (6-7ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433014-C
Lab Project ID: 31202433

Collection Date: 07/31/2012 13:45
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 73.30

Results by SW-846 8015C DRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND	U	8.57	8.57	mg/kg	1	08/10/2012 18:48
Surrogates							
o-Terphenyl	79.4			40.0-140	%	1	08/10/2012 18:48

Batch Information

Analytical Batch: **XGC2437**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**
Analytical Date/Time: **08/10/2012 18:48**

Prep Batch: **XXX2905**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/09/2012 10:17**
Prep Initial Wt./Vol.: **31.85 g**
Prep Extract Vol: **10 mL**

Print Date: 08/15/2012

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Results of 99DPT-13 (6-7ft)

Client Sample ID: **99DPT-13 (6-7ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433015-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 15:00
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 75.90

Results by SW-846 8015C GRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND	U	3.69	3.69	mg/kg	1	08/14/2012 15:38
Surrogates							
4-Bromofluorobenzene	109			70.0-130	%	1	08/14/2012 15:38

Batch Information

Analytical Batch: **VGC2067**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**
Analytical Date/Time: **08/14/2012 15:38**

Prep Batch: **VXX3822**
Prep Method: **SW-846 5035**
Prep Date/Time: **08/02/2012 14:18**
Prep Initial Wt./Vol.: **7.14 g**
Prep Extract Vol: **5 mL**

Print Date: 08/15/2012

N.C. Certification # 481

Results of 99DPT-13 (6-7ft)

Client Sample ID: **99DPT-13 (6-7ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433015-C
Lab Project ID: 31202433

Collection Date: 07/31/2012 15:00
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 75.90

Results by SW-846 8015C DRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	**67.2**		8.43	8.43	mg/kg	1	08/10/2012 19:16
Surrogates							
o-Terphenyl	73.5			40.0-140	%	1	08/10/2012 19:16

Batch Information

Analytical Batch: **XGC2437**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**
Analytical Date/Time: **08/10/2012 19:16**

Prep Batch: **XXX2905**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/09/2012 10:17**
Prep Initial Wt./Vol.: **31.24 g**
Prep Extract Vol: **10 mL**

Print Date: 08/15/2012

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Results of 99DPT-14 (4-4.4ft)

Client Sample ID: **99DPT-14 (4-4.4ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433016-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 16:40
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 87.20

Results by SW-846 8015C GRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	**1160**		201	201	mg/kg	50	08/14/2012 19:26
Surrogates							
4-Bromofluorobenzene	103			70.0-130	%	50	08/14/2012 19:26

Batch Information

Analytical Batch: **VGC2067**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**
Analytical Date/Time: **08/14/2012 19:26**

Prep Batch: **VXX3822**
Prep Method: **SW-846 5035**
Prep Date/Time: **08/02/2012 14:19**
Prep Initial Wt./Vol.: **5.71 g**
Prep Extract Vol: **5 mL**

Print Date: 08/15/2012

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Results of 99DPT-14 (4-4.4ft)

Client Sample ID: **99DPT-14 (4-4.4ft)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433016-C
Lab Project ID: 31202433

Collection Date: 07/31/2012 16:40
Received Date: 08/01/2012 16:55
Matrix: Soil-Solid as dry weight
Solids (%): 87.20

Results by SW-846 8015C DRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND	U	7.37	7.37	mg/kg	1	08/10/2012 19:44
Surrogates							
o-Terphenyl	83.4			40.0-140	%	1	08/10/2012 19:44

Batch Information

Analytical Batch: **XGC2437**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**
Analytical Date/Time: **08/10/2012 19:44**

Prep Batch: **XXX2905**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/09/2012 10:17**
Prep Initial Wt./Vol.: **31.13 g**
Prep Extract Vol: **10 mL**

Print Date: 08/15/2012

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SGS ANALYTICAL PERSPECTIVES

Results of 99DPT-13

Client Sample ID: **99DPT-13**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433017-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 15:15
Received Date: 08/01/2012 16:55
Matrix: Water

Results by SM 6200-B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	4.16	20.0	ug/L	40	08/6/2012 20:39
1,1,1-Trichloroethane	ND	U	4.92	20.0	ug/L	40	08/6/2012 20:39
1,1,2,2-Tetrachloroethane	ND	U	6.24	20.0	ug/L	40	08/6/2012 20:39
1,1,2-Trichloroethane	ND	U	5.04	20.0	ug/L	40	08/6/2012 20:39
1,1-Dichloroethane	ND	U	6.60	20.0	ug/L	40	08/6/2012 20:39
1,1-Dichloroethene	ND	U	8.48	20.0	ug/L	40	08/6/2012 20:39
1,1-Dichloropropene	ND	U	4.48	20.0	ug/L	40	08/6/2012 20:39
1,2,3-Trichlorobenzene	ND	U	4.40	20.0	ug/L	40	08/6/2012 20:39
1,2,3-Trichloropropane	ND	U	8.48	20.0	ug/L	40	08/6/2012 20:39
1,2,4-Trichlorobenzene	ND	U	3.65	20.0	ug/L	40	08/6/2012 20:39
1,2,4-Trimethylbenzene	**461**		3.84	20.0	ug/L	40	08/6/2012 20:39
1,2-Dibromo-3-chloropropane	ND	U	29.9	200	ug/L	40	08/6/2012 20:39
1,2-Dibromoethane	ND	U	4.80	20.0	ug/L	40	08/6/2012 20:39
1,2-Dichlorobenzene	ND	U	5.48	20.0	ug/L	40	08/6/2012 20:39
1,2-Dichloroethane	ND	U	6.68	20.0	ug/L	40	08/6/2012 20:39
1,2-Dichloropropane	ND	U	6.52	20.0	ug/L	40	08/6/2012 20:39
1,3,5-Trimethylbenzene	**129**		4.52	20.0	ug/L	40	08/6/2012 20:39
1,3-Dichlorobenzene	ND	U	4.12	20.0	ug/L	40	08/6/2012 20:39
1,3-Dichloropropane	ND	U	7.56	20.0	ug/L	40	08/6/2012 20:39
1,4-Dichlorobenzene	ND	U	5.20	20.0	ug/L	40	08/6/2012 20:39
2,2-Dichloropropane	ND	U	15.7	20.0	ug/L	40	08/6/2012 20:39
2-Chlorotoluene	ND	U	4.52	20.0	ug/L	40	08/6/2012 20:39
4-Chlorotoluene	ND	U	5.00	20.0	ug/L	40	08/6/2012 20:39
4-Isopropyltoluene	**8.00**	J	3.08	20.0	ug/L	40	08/6/2012 20:39
Benzene	**412**		4.52	20.0	ug/L	40	08/6/2012 20:39
Bromobenzene	ND	U	4.40	20.0	ug/L	40	08/6/2012 20:39
Bromochloromethane	ND	U	8.44	20.0	ug/L	40	08/6/2012 20:39
Bromodichloromethane	ND	U	4.40	20.0	ug/L	40	08/6/2012 20:39
Bromoform	ND	U	3.90	20.0	ug/L	40	08/6/2012 20:39
Bromomethane	ND	U	9.48	20.0	ug/L	40	08/6/2012 20:39
n-Butylbenzene	ND	U	3.08	20.0	ug/L	40	08/6/2012 20:39
Carbon tetrachloride	ND	U	4.04	20.0	ug/L	40	08/6/2012 20:39
Chlorobenzene	ND	U	4.64	20.0	ug/L	40	08/6/2012 20:39
Chloroethane	ND	U	12.4	20.0	ug/L	40	08/6/2012 20:39
Chloroform	ND	U	5.56	20.0	ug/L	40	08/6/2012 20:39
Chloromethane	ND	U	17.9	20.0	ug/L	40	08/6/2012 20:39
Dibromochloromethane	ND	U	5.36	20.0	ug/L	40	08/6/2012 20:39
Dibromomethane	ND	U	6.72	20.0	ug/L	40	08/6/2012 20:39
Dichlorodifluoromethane	ND	U	6.84	200	ug/L	40	08/6/2012 20:39
cis-1,3-Dichloropropene	ND	U	3.07	20.0	ug/L	40	08/6/2012 20:39
trans-1,3-Dichloropropene	ND	U	3.45	20.0	ug/L	40	08/6/2012 20:39
Diisopropyl Ether	ND	U	6.20	20.0	ug/L	40	08/6/2012 20:39
Ethyl Benzene	**441**		3.51	20.0	ug/L	40	08/6/2012 20:39
Hexachlorobutadiene	ND	U	3.17	20.0	ug/L	40	08/6/2012 20:39

Print Date: 08/15/2012

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Results of 99DPT-13

Client Sample ID: **99DPT-13**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433017-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 15:15
Received Date: 08/01/2012 16:55
Matrix: Water

Results by SM 6200-B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Isopropylbenzene (Cumene)	**22.8**		3.48	20.0	ug/L	40	08/6/2012 20:39
Methylene chloride	ND	U	6.08	200	ug/L	40	08/6/2012 20:39
Naphthalene	**98.8**		3.42	20.0	ug/L	40	08/6/2012 20:39
Styrene	ND	U	4.08	20.0	ug/L	40	08/6/2012 20:39
Tetrachloroethene	ND	U	6.20	20.0	ug/L	40	08/6/2012 20:39
Toluene	**373**		5.32	20.0	ug/L	40	08/6/2012 20:39
Trichloroethene	ND	U	5.00	20.0	ug/L	40	08/6/2012 20:39
Trichlorofluoromethane	ND	U	5.48	20.0	ug/L	40	08/6/2012 20:39
Vinyl chloride	ND	U	4.96	20.0	ug/L	40	08/6/2012 20:39
Xylene (total)	**1400**		10.8	60.0	ug/L	40	08/6/2012 20:39
cis-1,2-Dichloroethene	**6.40**	J	5.44	20.0	ug/L	40	08/6/2012 20:39
m,p-Xylene	**1020**		7.28	40.0	ug/L	40	08/6/2012 20:39
n-Propylbenzene	**76.0**		4.52	20.0	ug/L	40	08/6/2012 20:39
o-Xylene	**386**		3.50	20.0	ug/L	40	08/6/2012 20:39
sec-Butylbenzene	**5.20**	J	4.48	20.0	ug/L	40	08/6/2012 20:39
tert-Butyl methyl ether (MTBE)	ND	U	5.76	20.0	ug/L	40	08/6/2012 20:39
tert-Butylbenzene	ND	U	3.42	20.0	ug/L	40	08/6/2012 20:39
trans-1,2-Dichloroethene	ND	U	8.92	20.0	ug/L	40	08/6/2012 20:39
Surrogates							
1,2-Dichloroethane-d4	100			64.0-140	%	40	08/6/2012 20:39
4-Bromofluorobenzene	102			85.0-115	%	40	08/6/2012 20:39
Toluene d8	103			82.0-117	%	40	08/6/2012 20:39

Batch Information

Analytical Batch: **VMS2448**
Analytical Method: **SM 6200-B**
Instrument: **MSD3**
Analyst: **BWS**
Analytical Date/Time: **08/06/2012 20:39**

Prep Batch: **VXX3765**
Prep Method: **SM 6200-B Prep**
Prep Date/Time: **08/06/2012 10:18**
Prep Initial Wt./Vol.: **40 mL**
Prep Extract Vol: **40 mL**

Print Date: 08/15/2012

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SGS ANALYTICAL PERSPECTIVES

Results of 99DPT-13

Client Sample ID: **99DPT-13**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433017-D
Lab Project ID: 31202433

Collection Date: 07/31/2012 15:15
Received Date: 08/01/2012 16:55
Matrix: Water

Results by EPA 625

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	U	1.85	5.35	ug/L	1	08/4/2012 0:30
2,4-Dinitrotoluene	ND	U	1.97	5.35	ug/L	1	08/4/2012 0:30
2,6-Dinitrotoluene	ND	U	2.01	5.35	ug/L	1	08/4/2012 0:30
2-Chloronaphthalene	ND	U	2.14	5.35	ug/L	1	08/4/2012 0:30
3,3'-Dichlorobenzidine	ND	U	1.87	10.7	ug/L	1	08/4/2012 0:30
4-Chlorophenyl phenyl ether	ND	U	2.63	5.35	ug/L	1	08/4/2012 0:30
Acenaphthene	ND	U	2.20	5.35	ug/L	1	08/4/2012 0:30
Acenaphthylene	ND	U	2.14	5.35	ug/L	1	08/4/2012 0:30
Anthracene	ND	U	2.06	5.35	ug/L	1	08/4/2012 0:30
Benzo(a)anthracene	ND	U	2.10	5.35	ug/L	1	08/4/2012 0:30
Benzo(a)pyrene	ND	U	1.99	5.35	ug/L	1	08/4/2012 0:30
Benzo(b)fluoranthene	ND	U	2.10	5.35	ug/L	1	08/4/2012 0:30
Benzo(g,h,i)perylene	ND	U	2.30	5.35	ug/L	1	08/4/2012 0:30
Benzo(k)fluoranthene	ND	U	2.47	5.35	ug/L	1	08/4/2012 0:30
Bis(2-Chloroethoxy)methane	ND	U	2.27	5.35	ug/L	1	08/4/2012 0:30
Bis(2-Chloroethyl)ether	ND	U	2.36	5.35	ug/L	1	08/4/2012 0:30
Bis(2-Chloroisopropyl)ether	ND	U	2.18	5.35	ug/L	1	08/4/2012 0:30
Bis(2-Ethylhexyl)phthalate	**2.46**	J	2.09	5.35	ug/L	1	08/4/2012 0:30
4-Bromophenyl phenyl ether	ND	U	2.18	5.35	ug/L	1	08/4/2012 0:30
Butyl benzyl phthalate	ND	U	2.02	5.35	ug/L	1	08/4/2012 0:30
Chrysene	ND	U	2.35	5.35	ug/L	1	08/4/2012 0:30
Di-n-butyl phthalate	ND	U	2.04	5.35	ug/L	1	08/4/2012 0:30
Di-n-octyl phthalate	ND	U	1.56	5.35	ug/L	1	08/4/2012 0:30
Dibenz(a,h)anthracene	ND	U	2.16	5.35	ug/L	1	08/4/2012 0:30
Diethyl phthalate	ND	U	2.25	5.35	ug/L	1	08/4/2012 0:30
Dimethyl phthalate	ND	U	2.29	5.35	ug/L	1	08/4/2012 0:30
Diphenylamine	ND	U	2.16	5.35	ug/L	1	08/4/2012 0:30
Fluoranthene	ND	U	2.16	5.35	ug/L	1	08/4/2012 0:30
Fluorene	ND	U	2.61	5.35	ug/L	1	08/4/2012 0:30
Hexachlorobenzene	ND	U	2.06	5.35	ug/L	1	08/4/2012 0:30
Hexachlorobutadiene	ND	U	1.63	5.35	ug/L	1	08/4/2012 0:30
Hexachlorocyclopentadiene	ND	U	0.843	10.7	ug/L	1	08/4/2012 0:30
Hexachloroethane	ND	U	1.50	5.35	ug/L	1	08/4/2012 0:30
Indeno(1,2,3-cd)pyrene	ND	U	2.16	5.35	ug/L	1	08/4/2012 0:30
Isophorone	ND	U	2.24	5.35	ug/L	1	08/4/2012 0:30
Naphthalene	**49.5**		2.07	5.35	ug/L	1	08/4/2012 0:30
Nitrobenzene	ND	U	2.34	5.35	ug/L	1	08/4/2012 0:30
Phenanthrene	ND	U	2.13	5.35	ug/L	1	08/4/2012 0:30
Pyrene	ND	U	2.15	5.35	ug/L	1	08/4/2012 0:30
n-Nitrosodi-n-propylamine	ND	U	2.39	5.35	ug/L	1	08/4/2012 0:30
Surrogates							
2-Fluorobiphenyl	87.7			50.0-107	%	1	08/4/2012 0:30
Nitrobenzene-d5	53.9			46.0-118	%	1	08/4/2012 0:30

Print Date: 08/15/2012

N.C. Certification # 481

Results of 99DPT-13

Client Sample ID: **99DPT-13**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433017-D
Lab Project ID: 31202433

Collection Date: 07/31/2012 15:15
Received Date: 08/01/2012 16:55
Matrix: Water

Results by EPA 625

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Terphenyl-d14	81.2			22.1-142	%	1	08/4/2012 0:30

Batch Information

Analytical Batch: **XMS1623**
Analytical Method: **EPA 625**
Instrument: **MSD10**
Analyst: **CMP**
Analytical Date/Time: **08/04/2012 00:30**

Prep Batch: **XXX2882**
Prep Method: **EPA 625**
Prep Date/Time: **08/02/2012 15:33**
Prep Initial Wt./Vol.: **935 mL**
Prep Extract Vol: **5 mL**

Print Date: 08/15/2012

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SGS ANALYTICAL PERSPECTIVES

Results of Trip Blank (Not on CoC)

Client Sample ID: **Trip Blank (Not on CoC)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433018-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 00:00
Received Date: 08/01/2012 16:55
Matrix: Water

Results by SM 6200-B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.104	0.500	ug/L	1	08/6/2012 13:33
1,1,1-Trichloroethane	ND	U	0.123	0.500	ug/L	1	08/6/2012 13:33
1,1,2,2-Tetrachloroethane	ND	U	0.156	0.500	ug/L	1	08/6/2012 13:33
1,1,2-Trichloroethane	ND	U	0.126	0.500	ug/L	1	08/6/2012 13:33
1,1-Dichloroethane	ND	U	0.165	0.500	ug/L	1	08/6/2012 13:33
1,1-Dichloroethene	ND	U	0.212	0.500	ug/L	1	08/6/2012 13:33
1,1-Dichloropropene	ND	U	0.112	0.500	ug/L	1	08/6/2012 13:33
1,2,3-Trichlorobenzene	ND	U	0.110	0.500	ug/L	1	08/6/2012 13:33
1,2,3-Trichloropropane	ND	U	0.212	0.500	ug/L	1	08/6/2012 13:33
1,2,4-Trichlorobenzene	ND	U	0.0913	0.500	ug/L	1	08/6/2012 13:33
1,2,4-Trimethylbenzene	ND	U	0.0961	0.500	ug/L	1	08/6/2012 13:33
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1	08/6/2012 13:33
1,2-Dibromoethane	ND	U	0.120	0.500	ug/L	1	08/6/2012 13:33
1,2-Dichlorobenzene	ND	U	0.137	0.500	ug/L	1	08/6/2012 13:33
1,2-Dichloroethane	ND	U	0.167	0.500	ug/L	1	08/6/2012 13:33
1,2-Dichloropropane	ND	U	0.163	0.500	ug/L	1	08/6/2012 13:33
1,3,5-Trimethylbenzene	ND	U	0.113	0.500	ug/L	1	08/6/2012 13:33
1,3-Dichlorobenzene	ND	U	0.103	0.500	ug/L	1	08/6/2012 13:33
1,3-Dichloropropane	ND	U	0.189	0.500	ug/L	1	08/6/2012 13:33
1,4-Dichlorobenzene	ND	U	0.130	0.500	ug/L	1	08/6/2012 13:33
2,2-Dichloropropane	ND	U	0.393	0.500	ug/L	1	08/6/2012 13:33
2-Chlorotoluene	ND	U	0.113	0.500	ug/L	1	08/6/2012 13:33
4-Chlorotoluene	ND	U	0.125	0.500	ug/L	1	08/6/2012 13:33
4-Isopropyltoluene	ND	U	0.0769	0.500	ug/L	1	08/6/2012 13:33
Benzene	ND	U	0.113	0.500	ug/L	1	08/6/2012 13:33
Bromobenzene	ND	U	0.110	0.500	ug/L	1	08/6/2012 13:33
Bromochloromethane	ND	U	0.211	0.500	ug/L	1	08/6/2012 13:33
Bromodichloromethane	ND	U	0.110	0.500	ug/L	1	08/6/2012 13:33
Bromoform	ND	U	0.0974	0.500	ug/L	1	08/6/2012 13:33
Bromomethane	ND	U	0.237	0.500	ug/L	1	08/6/2012 13:33
n-Butylbenzene	ND	U	0.0769	0.500	ug/L	1	08/6/2012 13:33
Carbon tetrachloride	ND	U	0.101	0.500	ug/L	1	08/6/2012 13:33
Chlorobenzene	ND	U	0.116	0.500	ug/L	1	08/6/2012 13:33
Chloroethane	ND	U	0.311	0.500	ug/L	1	08/6/2012 13:33
Chloroform	ND	U	0.139	0.500	ug/L	1	08/6/2012 13:33
Chloromethane	ND	U	0.448	0.500	ug/L	1	08/6/2012 13:33
Dibromochloromethane	ND	U	0.134	0.500	ug/L	1	08/6/2012 13:33
Dibromomethane	ND	U	0.168	0.500	ug/L	1	08/6/2012 13:33
Dichlorodifluoromethane	ND	U	0.171	5.00	ug/L	1	08/6/2012 13:33
cis-1,3-Dichloropropene	ND	U	0.0767	0.500	ug/L	1	08/6/2012 13:33
trans-1,3-Dichloropropene	ND	U	0.0862	0.500	ug/L	1	08/6/2012 13:33
Diisopropyl Ether	ND	U	0.155	0.500	ug/L	1	08/6/2012 13:33
Ethyl Benzene	ND	U	0.0877	0.500	ug/L	1	08/6/2012 13:33
Hexachlorobutadiene	ND	U	0.0792	0.500	ug/L	1	08/6/2012 13:33

Print Date: 08/15/2012

N.C. Certification # 481

Results of Trip Blank (Not on CoC)

Client Sample ID: **Trip Blank (Not on CoC)**
Client Project ID: **NCDOT Parcel 99**
Lab Sample ID: 31202433018-A
Lab Project ID: 31202433

Collection Date: 07/31/2012 00:00
Received Date: 08/01/2012 16:55
Matrix: Water

Results by SM 6200-B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Isopropylbenzene (Cumene)	ND	U	0.0869	0.500	ug/L	1	08/6/2012 13:33
Methylene chloride	**0.450**	J	0.152	5.00	ug/L	1	08/6/2012 13:33
Naphthalene	ND	U	0.0855	0.500	ug/L	1	08/6/2012 13:33
Styrene	ND	U	0.102	0.500	ug/L	1	08/6/2012 13:33
Tetrachloroethene	ND	U	0.155	0.500	ug/L	1	08/6/2012 13:33
Toluene	ND	U	0.133	0.500	ug/L	1	08/6/2012 13:33
Trichloroethene	ND	U	0.125	0.500	ug/L	1	08/6/2012 13:33
Trichlorofluoromethane	ND	U	0.137	0.500	ug/L	1	08/6/2012 13:33
Vinyl chloride	ND	U	0.124	0.500	ug/L	1	08/6/2012 13:33
Xylene (total)	ND	U	0.269	1.50	ug/L	1	08/6/2012 13:33
cis-1,2-Dichloroethene	ND	U	0.136	0.500	ug/L	1	08/6/2012 13:33
m,p-Xylene	ND	U	0.182	1.00	ug/L	1	08/6/2012 13:33
n-Propylbenzene	ND	U	0.113	0.500	ug/L	1	08/6/2012 13:33
o-Xylene	ND	U	0.0874	0.500	ug/L	1	08/6/2012 13:33
sec-Butylbenzene	ND	U	0.112	0.500	ug/L	1	08/6/2012 13:33
tert-Butyl methyl ether (MTBE)	ND	U	0.144	0.500	ug/L	1	08/6/2012 13:33
tert-Butylbenzene	ND	U	0.0855	0.500	ug/L	1	08/6/2012 13:33
trans-1,2-Dichloroethene	ND	U	0.223	0.500	ug/L	1	08/6/2012 13:33
Surrogates							
1,2-Dichloroethane-d4	101			64.0-140	%	1	08/6/2012 13:33
4-Bromofluorobenzene	98.7			85.0-115	%	1	08/6/2012 13:33
Toluene d8	102			82.0-117	%	1	08/6/2012 13:33

Batch Information

Analytical Batch: **VMS2448**
Analytical Method: **SM 6200-B**
Instrument: **MSD3**
Analyst: **BWS**
Analytical Date/Time: **08/06/2012 13:33**

Prep Batch: **VXX3765**
Prep Method: **SM 6200-B Prep**
Prep Date/Time: **08/06/2012 10:18**
Prep Initial Wt./Vol.: **40 mL**
Prep Extract Vol: **40 mL**

Print Date: 08/15/2012

N.C. Certification # 481

Batch Summary

Analytical Method: SM 6200-B

Prep Method: SW-846 5030B
Prep Batch: VXX3765
Prep Date: 08/06/2012 08:36

Client Sample ID	Lab Sample ID	Analysis Date	Analytical Batch	Instrument	Analyst
LCS for HBN 26750 [VXX/3765]	83752	08/06/2012 11:53	VMS2448	MSD3	BWS
LCSD for HBN 26750 [VXX/3765]	83753	08/06/2012 12:18	VMS2448	MSD3	BWS
MB for HBN 26750 [VXX/3765]	83754	08/06/2012 13:08	VMS2448	MSD3	BWS
Trip Blank (Not on CoC)	31202433018	08/06/2012 13:33	VMS2448	MSD3	BWS
99DPT-14	31202433001	08/06/2012 15:38	VMS2448	MSD3	BWS
99DPT-13	31202433017	08/06/2012 20:39	VMS2448	MSD3	BWS
USTHPFFC-MW19(83118MS)	84137	08/06/2012 21:54	VMS2448	MSD3	BWS
USTHPFFC-MW19(83118MSD)	84138	08/06/2012 22:19	VMS2448	MSD3	BWS

Print Date: 08/15/2012

N.C. Certification # 481

Method Blank

Blank ID: MB for HBN 26750 [VXX/3765]
Blank Lab ID: 83754
QC for Samples:
31202433001, 31202433017, 31202433018

Matrix: Water

Results by SM 6200-B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Dichlorodifluoromethane	ND	U	0.171	5.00	ug/L	1
Chloromethane	ND	U	0.448	0.500	ug/L	1
Vinyl chloride	ND	U	0.124	0.500	ug/L	1
Bromomethane	ND	U	0.237	0.500	ug/L	1
Chloroethane	ND	U	0.311	0.500	ug/L	1
Trichlorofluoromethane	ND	U	0.137	0.500	ug/L	1
1,1-Dichloroethene	ND	U	0.212	0.500	ug/L	1
Methylene chloride	ND	U	0.152	5.00	ug/L	1
trans-1,2-Dichloroethene	ND	U	0.223	0.500	ug/L	1
tert-Butyl methyl ether (MTBE)	ND	U	0.144	0.500	ug/L	1
1,1-Dichloroethane	ND	U	0.165	0.500	ug/L	1
Diisopropyl Ether	ND	U	0.155	0.500	ug/L	1
2,2-Dichloropropane	ND	U	0.393	0.500	ug/L	1
cis-1,2-Dichloroethene	ND	U	0.136	0.500	ug/L	1
Bromochloromethane	ND	U	0.211	0.500	ug/L	1
Chloroform	ND	U	0.139	0.500	ug/L	1
1,1,1-Trichloroethane	ND	U	0.123	0.500	ug/L	1
Carbon tetrachloride	ND	U	0.101	0.500	ug/L	1
1,1-Dichloropropene	ND	U	0.112	0.500	ug/L	1
Benzene	ND	U	0.113	0.500	ug/L	1
1,2-Dichloroethane	ND	U	0.167	0.500	ug/L	1
Trichloroethene	ND	U	0.125	0.500	ug/L	1
1,2-Dichloropropane	ND	U	0.163	0.500	ug/L	1
Dibromomethane	ND	U	0.168	0.500	ug/L	1
Bromodichloromethane	ND	U	0.110	0.500	ug/L	1
cis-1,3-Dichloropropene	ND	U	0.0767	0.500	ug/L	1
Toluene	ND	U	0.133	0.500	ug/L	1
trans-1,3-Dichloropropene	ND	U	0.0862	0.500	ug/L	1
1,1,2-Trichloroethane	ND	U	0.126	0.500	ug/L	1
Tetrachloroethene	ND	U	0.155	0.500	ug/L	1
1,3-Dichloropropane	ND	U	0.189	0.500	ug/L	1
Dibromochloromethane	ND	U	0.134	0.500	ug/L	1
1,2-Dibromoethane	ND	U	0.120	0.500	ug/L	1
Chlorobenzene	ND	U	0.116	0.500	ug/L	1
1,1,1,2-Tetrachloroethane	ND	U	0.104	0.500	ug/L	1
Bromoform	ND	U	0.0974	0.500	ug/L	1
Bromobenzene	ND	U	0.110	0.500	ug/L	1
1,1,2,2-Tetrachloroethane	ND	U	0.156	0.500	ug/L	1
1,2,3-Trichloropropane	ND	U	0.212	0.500	ug/L	1
Ethyl Benzene	ND	U	0.0877	0.500	ug/L	1
m,p-Xylene	ND	U	0.182	1.00	ug/L	1
Styrene	ND	U	0.102	0.500	ug/L	1

Print Date: 08/15/2012

N.C. Certification # 481

Method Blank

Blank ID: MB for HBN 26750 [VXX/3765]
Blank Lab ID: 83754
QC for Samples:
31202433001, 31202433017, 31202433018

Matrix: Water

Results by SM 6200-B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
o-Xylene	ND	U	0.0874	0.500	ug/L	1
Xylene (total)	ND	U	0.269	1.50	ug/L	1
Isopropylbenzene (Cumene)	ND	U	0.0869	0.500	ug/L	1
n-Propylbenzene	ND	U	0.113	0.500	ug/L	1
2-Chlorotoluene	ND	U	0.113	0.500	ug/L	1
4-Chlorotoluene	ND	U	0.125	0.500	ug/L	1
1,3,5-Trimethylbenzene	ND	U	0.113	0.500	ug/L	1
tert-Butylbenzene	ND	U	0.0855	0.500	ug/L	1
1,2,4-Trimethylbenzene	ND	U	0.0961	0.500	ug/L	1
sec-Butylbenzene	ND	U	0.112	0.500	ug/L	1
1,3-Dichlorobenzene	ND	U	0.103	0.500	ug/L	1
4-Isopropyltoluene	ND	U	0.0769	0.500	ug/L	1
1,4-Dichlorobenzene	ND	U	0.130	0.500	ug/L	1
1,2-Dichlorobenzene	ND	U	0.137	0.500	ug/L	1
n-Butylbenzene	ND	U	0.0769	0.500	ug/L	1
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1
1,2,4-Trichlorobenzene	ND	U	0.0913	0.500	ug/L	1
Hexachlorobutadiene	ND	U	0.0792	0.500	ug/L	1
Naphthalene	ND	U	0.0855	0.500	ug/L	1
1,2,3-Trichlorobenzene	ND	U	0.110	0.500	ug/L	1
Surrogates						
1,2-Dichloroethane-d4	102			64.0-140	%	1
Toluene d8	103			82.0-117	%	1
4-Bromofluorobenzene	97.8			85.0-115	%	1

Batch Information

Analytical Batch: VMS2448
Analytical Method: SM 6200-B
Instrument: MSD3
Analyst: BWS
Analytical Date/Time: 8/6/2012 1:08:00PM

Prep Batch: VXX3765
Prep Method: SW-846 5030B
Prep Date/Time: 8/6/2012 8:36:53AM
Prep Initial Wt./Vol.: 40 mL
Prep Extract Vol: 40 mL

Print Date: 08/15/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 26750 [VXX/3765]
Blank Spike Lab ID: 83752
Date Analyzed: 08/06/2012 11:53

Spike Duplicate ID: LCSD for HBN 26750 [VXX/3765]
Spike Duplicate Lab ID: 83753
Date Analyzed: 08/06/2012 12:18
Matrix: Water

QC for Samples: 31202433001, 31202433017, 31202433018

Results by **SM 6200-B**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Dichlorodifluoromethane	5.00	4.00	80	5.00	3.56	71	33.0-170	12	30.00
Chloromethane	5.00	4.24	85	5.00	3.79	76	57.0-132	11	30.00
Vinyl chloride	5.00	4.25	85	5.00	3.67	73	59.0-138	15	30.00
Bromomethane	5.00	8.30	166*	5.00	4.84	97	51.0-134	53*	30.00
Chloroethane	5.00	4.27	85	5.00	4.08	82	64.0-145	4.6	30.00
Trichlorofluoromethane	5.00	4.62	92	5.00	3.98	80	64.0-133	15	30.00
1,1-Dichloroethene	5.00	4.64	93	5.00	4.67	93	71.0-128	0.64	30.00
Methylene chloride	5.00	3.81	76	5.00	4.57	91	70.0-113	18	30.00
trans-1,2-Dichloroethene	5.00	4.66	93	5.00	4.62	92	57.0-138	0.86	30.00
tert-Butyl methyl ether (MTBE)	5.00	4.23	85	5.00	4.63	93	47.0-142	9.0	30.00
1,1-Dichloroethane	5.00	4.29	86	5.00	4.84	97	68.0-133	12	30.00
Diisopropyl Ether	5.00	4.35	87	5.00	4.75	95	66.0-132	8.8	30.00
2,2-Dichloropropane	5.00	4.59	92	5.00	4.92	98	74.0-125	6.9	30.00
cis-1,2-Dichloroethene	5.00	4.49	90	5.00	4.80	96	73.0-128	6.7	30.00
Bromochloromethane	5.00	4.50	90	5.00	4.82	96	73.0-128	6.9	30.00
Chloroform	5.00	4.31	86	5.00	4.87	97	74.0-124	12	30.00
1,1,1-Trichloroethane	5.00	4.51	90	5.00	4.72	94	76.0-119	4.6	30.00
Carbon tetrachloride	5.00	4.48	90	5.00	4.65	93	75.0-120	3.7	30.00
1,1-Dichloropropene	5.00	4.53	91	5.00	4.71	94	76.0-124	3.9	30.00
Benzene	5.00	4.32	86	5.00	4.62	92	76.0-124	6.7	30.00
1,2-Dichloroethane	5.00	4.40	88	5.00	4.95	99	76.0-119	12	30.00
Trichloroethene	5.00	4.27	85	5.00	4.64	93	74.0-121	8.3	30.00
1,2-Dichloropropane	5.00	4.53	91	5.00	4.67	93	74.0-124	3.0	30.00
Dibromomethane	5.00	4.52	90	5.00	5.17	103	71.0-128	13	30.00
Bromodichloromethane	5.00	4.15	83	5.00	4.63	93	72.0-120	11	30.00
cis-1,3-Dichloropropene	5.00	4.16	83	5.00	4.45	89	73.0-122	6.7	30.00
Toluene	5.00	4.40	88	5.00	4.92	98	75.0-123	11	30.00
trans-1,3-Dichloropropene	5.00	4.66	93	5.00	5.10	102	70.0-125	9.0	30.00
1,1,2-Trichloroethane	5.00	4.70	94	5.00	4.63	93	76.0-121	1.5	30.00
Tetrachloroethene	5.00	4.32	86	5.00	4.47	89	59.0-112	3.4	30.00
1,3-Dichloropropane	5.00	4.42	88	5.00	4.77	95	74.0-120	7.6	30.00
Dibromochloromethane	5.00	4.30	86	5.00	4.57	91	67.0-122	6.1	30.00
1,2-Dibromoethane	5.00	4.14	83	5.00	4.90	98	74.0-119	17	30.00
Chlorobenzene	5.00	4.29	86	5.00	4.73	95	74.0-120	9.8	30.00

SGS ANALYTICAL PERSPECTIVES

Blank Spike Summary

Blank Spike ID: LCS for HBN 26750 [VXX/3765]
Blank Spike Lab ID: 83752
Date Analyzed: 08/06/2012 11:53

Spike Duplicate ID: LCSD for HBN 26750 [VXX/3765]
Spike Duplicate Lab ID: 83753
Date Analyzed: 08/06/2012 12:18
Matrix: Water

QC for Samples: 31202433001, 31202433017, 31202433018

Results by SM 6200-B

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
1,1,1,2-Tetrachloroethane	5.00	4.27	85	5.00	4.99	100	73.0-119	16	30.00
Bromoform	5.00	4.44	89	5.00	4.91	98	62.0-127	10	30.00
Bromobenzene	5.00	4.34	87	5.00	4.89	98	75.0-120	12	30.00
1,1,2,2-Tetrachloroethane	5.00	4.32	86	5.00	4.90	98	68.0-129	13	30.00
1,2,3-Trichloropropane	5.00	4.50	90	5.00	4.83	97	67.0-126	7.1	30.00
Ethyl Benzene	5.00	4.28	86	5.00	4.54	91	76.0-123	5.9	30.00
m,p-Xylene	10.0	8.58	86	10.0	9.01	90	76.0-124	4.9	30.00
Styrene	5.00	4.23	85	5.00	4.59	92	76.0-121	8.2	30.00
o-Xylene	5.00	4.52	90	5.00	4.76	95	75.0-124	5.2	30.00
Isopropylbenzene (Cumene)	5.00	4.38	88	5.00	4.59	92	77.0-120	4.7	30.00
n-Propylbenzene	5.00	4.29	86	5.00	4.54	91	77.0-123	5.7	30.00
2-Chlorotoluene	5.00	4.50	90	5.00	4.48	90	74.0-127	0.45	30.00
4-Chlorotoluene	5.00	4.24	85	5.00	4.43	89	77.0-123	4.4	30.00
1,3,5-Trimethylbenzene	5.00	4.46	89	5.00	4.59	92	76.0-122	2.9	30.00
tert-Butylbenzene	5.00	4.21	84	5.00	4.48	90	67.0-122	6.2	30.00
1,2,4-Trimethylbenzene	5.00	4.37	87	5.00	4.58	92	76.0-124	4.7	30.00
sec-Butylbenzene	5.00	4.29	86	5.00	4.60	92	78.0-121	7.0	30.00
1,3-Dichlorobenzene	5.00	4.35	87	5.00	4.63	93	75.0-120	6.2	30.00
4-Isopropyltoluene	5.00	4.34	87	5.00	4.52	90	77.0-120	4.1	30.00
1,4-Dichlorobenzene	5.00	4.38	88	5.00	4.46	89	70.0-125	1.8	30.00
1,2-Dichlorobenzene	5.00	4.37	87	5.00	4.80	96	76.0-118	9.4	30.00
n-Butylbenzene	5.00	4.13	83	5.00	4.44	89	78.0-118	7.2	30.00
1,2-Dibromo-3-chloropropane	30.0	26.3	88	30.0	26.6	89	62.0-130	1.1	30.00
1,2,4-Trichlorobenzene	5.00	4.12	82	5.00	4.36	87	72.0-119	5.7	30.00
Hexachlorobutadiene	5.00	4.18	84	5.00	4.22	84	69.0-121	0.95	30.00
Naphthalene	5.00	4.16	83	5.00	4.42	88	67.0-122	6.1	30.00
1,2,3-Trichlorobenzene	5.00	4.05	81	5.00	4.34	87	21.0-193	6.9	30.00
Surrogates									
1,2-Dichloroethane-d4			100			100	64.0-140		
Toluene d8			102			103	82.0-117		
4-Bromofluorobenzene			100			102	85.0-115		

Print Date: 08/15/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 26750 [VXX/3765]
Blank Spike Lab ID: 83752
Date Analyzed: 08/06/2012 11:53

Spike Duplicate ID: LCSD for HBN 26750 [VXX/3765]
Spike Duplicate Lab ID: 83753
Date Analyzed: 08/06/2012 12:18
Matrix: Water

QC for Samples: 31202433001, 31202433017, 31202433018

Results by SM 6200-B

	Blank Spike (%)			Spike Duplicate (%)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL

Batch Information

Analytical Batch: VMS2448
Analytical Method: SM 6200-B
Instrument: MSD3
Analyst: BWS

Prep Batch: VXX3765
Prep Method: SW-846 5030B
Prep Date/Time: 08/06/2012 08:36
Spike Init Wt./Vol.: 40 mL Extract Vol: 40 mL
Dupe Init Wt./Vol.: 40 mL Extract Vol: 40 mL

Batch Summary

Analytical Method: SW-846 8015C GRO

Prep Method: SW-846 5035
Prep Batch: VXX3800
Prep Date: 08/10/2012 08:40

Client Sample ID	Lab Sample ID	Analysis Date	Analytical Batch	Instrument	Analyst
LCS for HBN 26931 [VXX/3800]	84679	08/10/2012 10:41	VGC2064	GC7	MDY
LCSD for HBN 26931 [VXX/3800]	84680	08/10/2012 11:06	VGC2064	GC7	MDY
MB for HBN 26931 [VXX/3800]	84681	08/10/2012 11:32	VGC2064	GC7	MDY
SS-2(82828MS)	84764	08/10/2012 12:38	VGC2064	GC7	MDY
SS-2(82828MSD)	84765	08/10/2012 13:03	VGC2064	GC7	MDY
99DPT-01 (1-2ft)	31202433002	08/10/2012 15:09	VGC2064	GC7	MDY
99DPT-01 (7-8ft)	31202433003	08/10/2012 15:34	VGC2064	GC7	MDY
99DPT-02 (3-4ft)	31202433004	08/10/2012 15:59	VGC2064	GC7	MDY
99DPT-05 (4-5ft)	31202433007	08/10/2012 17:15	VGC2064	GC7	MDY
99DPT-07 (6-7ft)	31202433009	08/10/2012 18:06	VGC2064	GC7	MDY
99DPT-08 (6-7ft)	31202433010	08/10/2012 18:31	VGC2064	GC7	MDY

Method Blank

Blank ID: MB for HBN 26931 [VXX/3800]
Blank Lab ID: 84681
Matrix: Soil-Solid as dry weight
QC for Samples:
31202433002, 31202433003, 31202433004, 31202433007, 31202433009, 31202433010

Results by SW-846 8015C GRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Gasoline Range Organics (GRO)	ND	U	4.00	4.00	mg/kg	1
Surrogates						
4-Bromofluorobenzene	103			70.0-130	%	1

Batch Information

Analytical Batch: VGC2064
Analytical Method: SW-846 8015C GRO
Instrument: GC7
Analyst: MDY
Analytical Date/Time: 8/10/2012 11:32:00AM

Prep Batch: VXX3800
Prep Method: SW-846 5035
Prep Date/Time: 8/10/2012 8:40:03AM
Prep Initial Wt./Vol.: 5 g
Prep Extract Vol: 5 mL

Print Date: 08/15/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 26931 [VXX/3800]
Blank Spike Lab ID: 84679
Date Analyzed: 08/10/2012 10:41

Spike Duplicate ID: LCSD for HBN 26931 [VXX/3800]
Spike Duplicate Lab ID: 84680
Date Analyzed: 08/10/2012 11:06
Matrix: Soil-Solid as dry weight

QC for Samples: 31202433002, 31202433003, 31202433004, 31202433007, 31202433009, 31202433010

Results by SW-846 8015C GRO

	Blank Spike (mg/kg)			Spike Duplicate (mg/kg)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Gasoline Range Organics (GRO)	16.0	16.4	103	16.0	16.9	106	70.0-130	3.0	30.00
Surrogates									
4-Bromofluorobenzene			103			106	70.0-130		

Batch Information

Analytical Batch: VGC2064
Analytical Method: SW-846 8015C GRO
Instrument: GC7
Analyst: MDY

Prep Batch: VXX3800
Prep Method: SW-846 5035
Prep Date/Time: 08/10/2012 08:40
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: VXX3812
Prep Date: 08/13/2012 08:40

Client Sample ID	Lab Sample ID	Analysis Date	Analytical Batch	Instrument	Analyst
LCS for HBN 27157 [VXX/3812]	84856	08/13/2012 10:45	VGC2065	GC7	MDY
LCSD for HBN 27157 [VXX/3812]	84857	08/13/2012 11:10	VGC2065	GC7	MDY
MB for HBN 27157 [VXX/3812]	84858	08/13/2012 11:35	VGC2065	GC7	MDY
SB-3 12-16(84789MS)	84987	08/13/2012 12:51	VGC2065	GC7	MDY
SB-3 12-16(84789MSD)	84988	08/13/2012 13:16	VGC2065	GC7	MDY
99DPT-09 (6-7ft)	31202433011	08/13/2012 17:04	VGC2065	GC7	MDY
99DPT-03 (6-7ft)	31202433005	08/13/2012 17:30	VGC2065	GC7	MDY
99DPT-06 (6-7ft)	31202433008	08/13/2012 17:55	VGC2065	GC7	MDY
99DPT-10 (6-7ft)	31202433012	08/13/2012 18:45	VGC2065	GC7	MDY
99DPT-11 (6-7ft)	31202433013	08/13/2012 19:11	VGC2065	GC7	MDY

Method Blank

Blank ID: MB for HBN 27157 [VXX/3812]
Blank Lab ID: 84858
QC for Samples:
31202433005, 31202433008, 31202433011, 31202433012, 31202433013

Matrix: Soil-Solid as dry weight

Results by SW-846 8015C GRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Gasoline Range Organics (GRO)	ND	U	4.00	4.00	mg/kg	1
Surrogates						
4-Bromofluorobenzene	94.7			70.0-130	%	1

Batch Information

Analytical Batch: VGC2065
Analytical Method: SW-846 8015C GRO
Instrument: GC7
Analyst: MDY
Analytical Date/Time: 8/13/2012 11:35:00AM

Prep Batch: VXX3812
Prep Method: SW-846 5035
Prep Date/Time: 8/13/2012 8:40:42AM
Prep Initial Wt./Vol.: 5 g
Prep Extract Vol: 5 mL

Print Date: 08/15/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 27157 [VXX/3812]
Blank Spike Lab ID: 84856
Date Analyzed: 08/13/2012 10:45

Spike Duplicate ID: LCSD for HBN 27157 [VXX/3812]
Spike Duplicate Lab ID: 84857
Date Analyzed: 08/13/2012 11:10
Matrix: Soil-Solid as dry weight

QC for Samples: 31202433005, 31202433008, 31202433011, 31202433012, 31202433013

Results by SW-846 8015C GRO

	Blank Spike (mg/kg)			Spike Duplicate (mg/kg)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Gasoline Range Organics (GRO)	16.0	16.2	101	16.0	16.3	102	70.0-130	0.62	30.00
Surrogates									
4-Bromofluorobenzene			98.6			99.9	70.0-130		

Batch Information

Analytical Batch: VGC2065
Analytical Method: SW-846 8015C GRO
Instrument: GC7
Analyst: MDY

Prep Batch: VXX3812
Prep Method: SW-846 5035
Prep Date/Time: 08/13/2012 08:40
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: VXX3822
Prep Date: 08/14/2012 08:34

Client Sample ID	Lab Sample ID	Analysis Date	Analytical Batch	Instrument	Analyst
LCS for HBN 27203 [VXX/3822]	85032	08/14/2012 10:36	VGC2067	GC7	MDY
LCSD for HBN 27203 [VXX/3822]	85033	08/14/2012 11:01	VGC2067	GC7	MDY
MB for HBN 27203 [VXX/3822]	85034	08/14/2012 11:26	VGC2067	GC7	MDY
HPFF-B(84990MS)	85152	08/14/2012 12:42	VGC2067	GC7	MDY
HPFF-B(84990MSD)	85153	08/14/2012 13:07	VGC2067	GC7	MDY
99DPT-04 (7-8ft)	31202433006	08/14/2012 14:23	VGC2067	GC7	MDY
99DPT-13 (6-7ft)	31202433015	08/14/2012 15:38	VGC2067	GC7	MDY
99DPT-14 (4-4.4ft)	31202433016	08/14/2012 19:26	VGC2067	GC7	MDY
99DPT-12 (6-7ft)	31202433014	08/14/2012 19:51	VGC2067	GC7	MDY

Print Date: 08/15/2012

N.C. Certification # 481

Method Blank

Blank ID: MB for HBN 27203 [VXX/3822]
Blank Lab ID: 85034
QC for Samples:
31202433006, 31202433014, 31202433015, 31202433016

Matrix: Soil-Solid as dry weight

Results by SW-846 8015C GRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Gasoline Range Organics (GRO)	ND	U	4.00	4.00	mg/kg	1
Surrogates						
4-Bromofluorobenzene	101			70.0-130	%	1

Batch Information

Analytical Batch: VGC2067
Analytical Method: SW-846 8015C GRO
Instrument: GC7
Analyst: MDY
Analytical Date/Time: 8/14/2012 11:26:00AM

Prep Batch: VXX3822
Prep Method: SW-846 5035
Prep Date/Time: 8/14/2012 8:34:58AM
Prep Initial Wt./Vol.: 5 g
Prep Extract Vol: 5 mL

Print Date: 08/15/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 27203 [VXX/3822]
Blank Spike Lab ID: 85032
Date Analyzed: 08/14/2012 10:36

Spike Duplicate ID: LCSD for HBN 27203 [VXX/3822]
Spike Duplicate Lab ID: 85033
Date Analyzed: 08/14/2012 11:01
Matrix: Soil-Solid as dry weight

QC for Samples: 31202433006, 31202433014, 31202433015, 31202433016

Results by SW-846 8015C GRO

	Blank Spike (mg/kg)			Spike Duplicate (mg/kg)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Gasoline Range Organics (GRO)	16.0	16.8	105	16.0	16.8	105	70.0-130	0.0	30.00
Surrogates									
4-Bromofluorobenzene			100			100	70.0-130		

Batch Information

Analytical Batch: VGC2067
Analytical Method: SW-846 8015C GRO
Instrument: GC7
Analyst: MDY

Prep Batch: VXX3822
Prep Method: SW-846 5035
Prep Date/Time: 08/14/2012 08:34
Spike Init Wt./Vol.: 5 g Extract Vol: 5 mL
Dupe Init Wt./Vol.: 5 g Extract Vol: 5 mL

Batch Summary

Analytical Method: EPA 625

Prep Method: EPA 625
Prep Batch: XXX2882
Prep Date: 08/02/2012 15:33

Client Sample ID	Lab Sample ID	Analysis Date	Analytical Batch	Instrument	Analyst
MB for HBN 26410 [XXX/2882]	83372	08/03/2012 22:13	XMS1623	MSD10	CMP
LCS for HBN 26410 [XXX/2882]	83373	08/03/2012 22:36	XMS1623	MSD10	CMP
TMW-1(82830MS)	83374	08/03/2012 23:22	XMS1623	MSD10	CMP
99DPT-14	31202433001	08/03/2012 23:45	XMS1623	MSD10	CMP
99DPT-14(83220DUP)	83375	08/04/2012 00:08	XMS1623	MSD10	CMP
99DPT-13	31202433017	08/04/2012 00:30	XMS1623	MSD10	CMP

SGS ANALYTICAL PERSPECTIVES

Method Blank

Blank ID: MB for HBN 26410 [XXX/2882]
Blank Lab ID: 83372
QC for Samples:
31202433001, 31202433017

Matrix: Water

Results by EPA 625

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Bis(2-Chloroethyl)ether	ND	U	2.21	5.00	ug/L	1
Bis(2-Chloroisopropyl)ether	ND	U	2.04	5.00	ug/L	1
n-Nitrosodi-n-propylamine	ND	U	2.23	5.00	ug/L	1
Hexachloroethane	ND	U	1.40	5.00	ug/L	1
Nitrobenzene	ND	U	2.19	5.00	ug/L	1
Isophorone	ND	U	2.09	5.00	ug/L	1
Bis(2-Chloroethoxy)methane	ND	U	2.12	5.00	ug/L	1
1,2,4-Trichlorobenzene	ND	U	1.73	5.00	ug/L	1
Naphthalene	ND	U	1.94	5.00	ug/L	1
Hexachlorobutadiene	ND	U	1.52	5.00	ug/L	1
Hexachlorocyclopentadiene	ND	U	0.788	10.0	ug/L	1
2-Chloronaphthalene	ND	U	2.00	5.00	ug/L	1
Dimethyl phthalate	ND	U	2.14	5.00	ug/L	1
2,6-Dinitrotoluene	ND	U	1.88	5.00	ug/L	1
Acenaphthene	ND	U	2.06	5.00	ug/L	1
2,4-Dinitrotoluene	ND	U	1.84	5.00	ug/L	1
Fluorene	ND	U	2.44	5.00	ug/L	1
Diethyl phthalate	ND	U	2.10	5.00	ug/L	1
4-Chlorophenyl phenyl ether	ND	U	2.46	5.00	ug/L	1
Diphenylamine	ND	U	2.02	5.00	ug/L	1
4-Bromophenyl phenyl ether	ND	U	2.04	5.00	ug/L	1
Hexachlorobenzene	ND	U	1.93	5.00	ug/L	1
Phenanthrene	ND	U	1.99	5.00	ug/L	1
Anthracene	ND	U	1.93	5.00	ug/L	1
Di-n-butyl phthalate	ND	U	1.91	5.00	ug/L	1
Fluoranthene	ND	U	2.02	5.00	ug/L	1
Pyrene	ND	U	2.01	5.00	ug/L	1
Butyl benzyl phthalate	ND	U	1.89	5.00	ug/L	1
Benzo(a)anthracene	ND	U	1.96	5.00	ug/L	1
3,3'-Dichlorobenzidine	ND	U	1.75	10.0	ug/L	1
Chrysene	ND	U	2.20	5.00	ug/L	1
Bis(2-Ethylhexyl)phthalate	ND	U	1.95	5.00	ug/L	1
Benzo(b)fluoranthene	ND	U	1.96	5.00	ug/L	1
Benzo(k)fluoranthene	ND	U	2.31	5.00	ug/L	1
Benzo(a)pyrene	ND	U	1.86	5.00	ug/L	1
Indeno(1,2,3-cd)pyrene	ND	U	2.02	5.00	ug/L	1
Dibenz(a,h)anthracene	ND	U	2.02	5.00	ug/L	1
Benzo(g,h,i)perylene	ND	U	2.15	5.00	ug/L	1
Acenaphthylene	ND	U	2.00	5.00	ug/L	1
Di-n-octyl phthalate	ND	U	1.46	5.00	ug/L	1
Surrogates						
2-Fluorophenol	71.1			33.1-118	%	1

Print Date: 08/15/2012

N.C. Certification # 481

Method Blank

Blank ID: MB for HBN 26410 [XXX/2882]
Blank Lab ID: 83372
QC for Samples:
31202433001, 31202433017

Matrix: Water

Results by EPA 625

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Phenol-d6	84.8			49.0-120	%	1
Nitrobenzene-d5	83.8			46.0-118	%	1
2-Fluorobiphenyl	81.0			50.0-107	%	1
2,4,6-Tribromophenol	64.9			29.3-152	%	1
Terphenyl-d14	93.8			22.1-142	%	1

Batch Information

Analytical Batch: XMS1623
Analytical Method: EPA 625
Instrument: MSD10
Analyst: CMP
Analytical Date/Time: 8/3/2012 10:13:00PM

Prep Batch: XXX2882
Prep Method: EPA 625
Prep Date/Time: 8/2/2012 3:33:04PM
Prep Initial Wt./Vol.: 1000 mL
Prep Extract Vol: 5 mL

Print Date: 08/15/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 26410 [XXX/2882]
Blank Spike Lab ID: 83373
Date Analyzed: 08/03/2012 22:36

Matrix: Water

QC for Samples: 31202433001, 31202433017

Results by EPA 625

Blank Spike (ug/L)

Parameter	Spike	Result	Rec (%)	CL
Bis(2-Chloroethyl)ether	50.0	49.4	99	12.0-158
Bis(2-Chloroisopropyl)ether	50.0	50.7	101	36.0-166
n-Nitrosodi-n-propylamine	50.0	45.9	92	0.0100-230
Hexachloroethane	50.0	29.5	59	40.0-113
Nitrobenzene	50.0	49.9	100	35.0-180
Isophorone	50.0	52.2	104	21.0-196
Bis(2-Chloroethoxy)methane	50.0	52.5	105	33.0-184
1,2,4-Trichlorobenzene	50.0	40.7	81	44.0-142
Naphthalene	50.0	46.1	92	21.0-133
Hexachlorobutadiene	50.0	36.5	73	24.0-116
Hexachlorocyclopentadiene	50.0	53.2	106	0.0100-417
2-Chloronaphthalene	50.0	45.1	90	60.0-118
Dimethyl phthalate	50.0	51.1	102	0.0100-112
2,6-Dinitrotoluene	50.0	50.9	102	50.0-158
Acenaphthene	50.0	50.2	100	47.0-145
2,4-Dinitrotoluene	50.0	51.8	104	39.0-139
Fluorene	50.0	54.6	109	59.0-121
Diethyl phthalate	50.0	51.9	104	0.0100-114
4-Chlorophenyl phenyl ether	50.0	53.7	107	25.0-158
Diphenylamine	50.0	49.4	99	63.8-100
4-Bromophenyl phenyl ether	50.0	50.5	101	53.0-127
Hexachlorobenzene	50.0	50.7	101	0.0100-152
Phenanthrene	50.0	53.2	106	54.0-120
Anthracene	50.0	49.4	99	27.0-133
Di-n-butyl phthalate	50.0	56.5	113	1.00-118
Fluoranthene	50.0	54.2	108	26.0-137
Pyrene	50.0	49.7	99	52.0-115
Butyl benzyl phthalate	50.0	49.6	99	0.0100-152
Benzo(a)anthracene	50.0	48.2	96	33.0-143
3,3'-Dichlorobenzidine	50.0	39.7	79	0.0100-262
Chrysene	50.0	49.7	99	17.0-168
Bis(2-Ethylhexyl)phthalate	50.0	50.6	101	8.00-158
Benzo(b)fluoranthene	50.0	49.6	99	24.0-159
Benzo(k)fluoranthene	50.0	52.6	105	11.0-162

Blank Spike Summary

Blank Spike ID: LCS for HBN 26410 [XXX/2882]
Blank Spike Lab ID: 83373
Date Analyzed: 08/03/2012 22:36

Matrix: Water

QC for Samples: 31202433001, 31202433017

Results by EPA 625

	Blank Spike (ug/L)			
Parameter	Spike	Result	Rec (%)	CL
Benzo(a)pyrene	50.0	48.0	96	17.0-163
Indeno(1,2,3-cd)pyrene	50.0	53.4	107	0.0100-171
Dibenz(a,h)anthracene	50.0	53.5	107	0.0100-227
Benzo(g,h,i)perylene	50.0	54.8	110	0.0100-219
Acenaphthylene	50.0	50.2	100	33.0-145
Di-n-octyl phthalate	50.0	56.3	113	4.00-146
Surrogates				
2-Fluorophenol			87.4	33.1-118
Phenol-d6			107	49.0-120
Nitrobenzene-d5			103	46.0-118
2-Fluorobiphenyl			102	50.0-107
2,4,6-Tribromophenol			106	29.3-152
Terphenyl-d14			96.2	22.1-142

Batch Information

Analytical Batch: **XMS1623**
Analytical Method: **EPA 625**
Instrument: **MSD10**
Analyst: **CMP**

Prep Batch: **XXX2882**
Prep Method: **EPA 625**
Prep Date/Time: **08/02/2012 15:33**
Spike Init Wt./Vol.: **1000 mL** Extract Vol: **5 mL**
Dupe Init Wt./Vol.: Extract Vol:

Print Date: 08/15/2012

N.C. Certification # 481

Duplicate Sample Summary

Original Sample ID: 31202433001-D
Duplicate Sample ID: 83375

Analysis Date: 08/03/2012 23:45
Analysis Date: 08/04/2012 00:08
Matrix: Water

QC for Samples: 31202433001, 31202433017

Results by EPA 625

PARAMETER	Original (ug/L)	Qual	Duplicate (ug/L)	Qual	RPD (%)	RPD CL
1,2,4-Trichlorobenzene	ND	U	ND	U		30.00
2,4-Dinitrotoluene	ND	U	ND	U		30.00
2,6-Dinitrotoluene	ND	U	ND	U		30.00
2-Chloronaphthalene	ND	U	ND	U		30.00
3,3'-Dichlorobenzidine	ND	U	ND	U		30.00
4-Bromophenyl phenyl ether	ND	U	ND	U		30.00
4-Chlorophenyl phenyl ether	ND	U	ND	U		30.00
Acenaphthene	ND	U	ND	U		30.00
Acenaphthylene	ND	U	ND	U		30.00
Anthracene	ND	U	ND	U		30.00
Benzo(a)anthracene	3.57	J	3.39	J	5.2	30.00
Benzo(a)pyrene	ND	U	2.33	J		30.00
Benzo(b)fluoranthene	3.57	J	3.92	J	9.3	30.00
Benzo(g,h,i)perylene	ND	U	2.28	J		30.00
Benzo(k)fluoranthene	ND	U	ND	U		30.00
Bis(2-Chloroethoxy)methane	ND	U	ND	U		30.00
Bis(2-Chloroethyl)ether	ND	U	ND	U		30.00
Bis(2-Chloroisopropyl)ether	ND	U	ND	U		30.00
Bis(2-Ethylhexyl)phthalate	2.33	J	ND	U		30.00
Butyl benzyl phthalate	ND	U	ND	U		30.00
Chrysene	5.03	J	4.60	J	8.9	30.00
Di-n-butyl phthalate	ND	U	ND	U		30.00
Di-n-octyl phthalate	ND	U	ND	U		30.00
Dibenz(a,h)anthracene	ND	U	ND	U		30.00
Diethyl phthalate	ND	U	ND	U		30.00
Dimethyl phthalate	ND	U	ND	U		30.00
Diphenylamine	ND	U	ND	U		30.00
Fluoranthene	19.9		18.5		7.3	30.00

Print Date: 08/15/2012

N.C. Certification # 481

Duplicate Sample Summary

Original Sample ID: 31202433001-D
Duplicate Sample ID: 83375

Analysis Date: 08/03/2012 23:45
Analysis Date: 08/04/2012 00:08
Matrix: Water

QC for Samples: 31202433001, 31202433017

Results by EPA 625

PARAMETER	Original (ug/L)	Qual	Duplicate (ug/L)	Qual	RPD (%)	RPD CL
Fluorene	ND	U	ND	U		30.00
Hexachlorobenzene	ND	U	ND	U		30.00
Hexachlorobutadiene	ND	U	ND	U		30.00
Hexachlorocyclopentadiene	ND	U	ND	U		30.00
Hexachloroethane	ND	U	ND	U		30.00
Indeno(1,2,3-cd)pyrene	ND	U	ND	U		30.00
Isophorone	ND	U	ND	U		30.00
n-Nitrosodi-n-propylamine	ND	U	ND	U		30.00
Naphthalene	ND	U	ND	U		30.00
Nitrobenzene	ND	U	ND	U		30.00
Phenanthrene	18.8		25.1		29	30.00
Pyrene	14.0		12.7		9.7	30.00

Batch Information

Analytical Batch: XMS1623
Analytical Method: EPA 625
Instrument: MSD10
Analyst: CMP

Print Date: 08/15/2012

N.C. Certification # 481

Batch Summary

Analytical Method: SW-846 8015C DRO

Prep Method: SW-846 3541
Prep Batch: XXX2891
Prep Date: 08/06/2012 09:17

Client Sample ID	Lab Sample ID	Analysis Date	Analytical Batch	Instrument	Analyst
MB for HBN 26757 [XXX/2891]	83770	08/07/2012 09:33	XGC2425	GC6	DTF
LCS for HBN 26757 [XXX/2891]	83771	08/07/2012 10:01	XGC2425	GC6	DTF
S-1(83731MS)	83772	08/07/2012 10:57	XGC2425	GC6	DTF
S-1(83731MSD)	83773	08/07/2012 11:26	XGC2425	GC6	DTF
99DPT-01 (1-2ft)	31202433002	08/07/2012 18:55	XGC2425	GC6	DTF
99DPT-01 (7-8ft)	31202433003	08/07/2012 19:23	XGC2425	GC6	DTF
99DPT-02 (3-4ft)	31202433004	08/07/2012 19:51	XGC2425	GC6	DTF
99DPT-03 (6-7ft)	31202433005	08/07/2012 20:19	XGC2425	GC6	DTF
99DPT-04 (7-8ft)	31202433006	08/07/2012 20:47	XGC2425	GC6	DTF
99DPT-05 (4-5ft)	31202433007	08/07/2012 21:15	XGC2425	GC6	DTF

Method Blank

Blank ID: MB for HBN 26757 [XXX/2891]
Blank Lab ID: 83770
Matrix: Soil-Solid as dry weight
QC for Samples:
31202433002, 31202433003, 31202433004, 31202433005, 31202433006, 31202433007

Results by SW-846 8015C DRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Diesel Range Organics (DRO)	ND	U	6.25	6.25	mg/kg	1
Surrogates						
o-Terphenyl	108			40.0-140	%	1

Batch Information

Analytical Batch: XGC2425
Analytical Method: SW-846 8015C DRO
Instrument: GC6
Analyst: DTF
Analytical Date/Time: 8/7/2012 9:33:00AM

Prep Batch: XXX2891
Prep Method: SW-846 3541
Prep Date/Time: 8/6/2012 9:17:47AM
Prep Initial Wt./Vol.: 32 g
Prep Extract Vol: 10 mL

Print Date: 08/15/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 26757 [XXX/2891]
Blank Spike Lab ID: 83771
Date Analyzed: 08/07/2012 10:01

Matrix: Soil-Solid as dry weight

QC for Samples: 31202433002, 31202433003, 31202433004, 31202433005, 31202433006, 31202433007

Results by SW-846 8015C DRO

Blank Spike (mg/kg)

Parameter	Spike	Result	Rec (%)	CL
Diesel Range Organics (DRO)	62.5	70.2	112	55.0-137
Surrogates				
o-Terphenyl			114	40.0-140

Batch Information

Analytical Batch: XGC2425
Analytical Method: SW-846 8015C DRO
Instrument: GC6
Analyst: DTF

Prep Batch: XXX2891
Prep Method: SW-846 3541
Prep Date/Time: 08/06/2012 09:17
Spike Init Wt./Vol.: 32 g Extract Vol: 10 mL
Dupe Init Wt./Vol.: Extract Vol:

Batch Summary

Analytical Method: SW-846 8015C DRO

Prep Method: SW-846 3541
Prep Batch: XXX2905
Prep Date: 08/09/2012 10:17

Client Sample ID	Lab Sample ID	Analysis Date	Analytical Batch	Instrument	Analyst
MB for HBN 26903 [XXX/2905]	84477	08/09/2012 22:18	XGC2435	GC6	DTF
LCS for HBN 26903 [XXX/2905]	84478	08/09/2012 22:46	XGC2435	GC6	DTF
99DPT-06 (6-7ft)	31202433008	08/10/2012 01:36	XGC2435	GC6	DTF
99DPT-06 (6-7ft)(83228MS)	84479	08/10/2012 02:05	XGC2435	GC6	DTF
99DPT-06 (6-7ft)(83228MSD)	84480	08/10/2012 02:33	XGC2435	GC6	DTF
99DPT-07 (6-7ft)	31202433009	08/10/2012 16:26	XGC2437	GC6	DTF
99DPT-08 (6-7ft)	31202433010	08/10/2012 16:54	XGC2437	GC6	DTF
99DPT-09 (6-7ft)	31202433011	08/10/2012 17:22	XGC2437	GC6	DTF
99DPT-10 (6-7ft)	31202433012	08/10/2012 17:51	XGC2437	GC6	DTF
99DPT-11 (6-7ft)	31202433013	08/10/2012 18:19	XGC2437	GC6	DTF
99DPT-12 (6-7ft)	31202433014	08/10/2012 18:48	XGC2437	GC6	DTF
99DPT-13 (6-7ft)	31202433015	08/10/2012 19:16	XGC2437	GC6	DTF
99DPT-14 (4-4.4ft)	31202433016	08/10/2012 19:44	XGC2437	GC6	DTF

Print Date: 08/15/2012

N.C. Certification # 481

Method Blank

Blank ID: MB for HBN 26903 [XXX/2905]
Blank Lab ID: 84477
Matrix: Soil-Solid as dry weight
QC for Samples:
31202433008, 31202433009, 31202433010, 31202433011, 31202433012, 31202433013, 31202433014, 31202433015, 31202433016

Results by SW-846 8015C DRO

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Diesel Range Organics (DRO)	ND	U	6.25	6.25	mg/kg	1
Surrogates						
o-Terphenyl	95.4			40.0-140	%	1

Batch Information

Analytical Batch: XGC2435
Analytical Method: SW-846 8015C DRO
Instrument: GC6
Analyst: DTF
Analytical Date/Time: 8/9/2012 10:18:00PM

Prep Batch: XXX2905
Prep Method: SW-846 3541
Prep Date/Time: 8/9/2012 10:17:35AM
Prep Initial Wt./Vol.: 32 g
Prep Extract Vol: 10 mL

Print Date: 08/15/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 26903 [XXX/2905]
Blank Spike Lab ID: 84478
Date Analyzed: 08/09/2012 22:46

Matrix: Soil-Solid as dry weight

QC for Samples: 31202433008, 31202433009, 31202433010, 31202433011, 31202433012, 31202433013, 31202433014, 31202433015, 31202433016

Results by SW-846 8015C DRO

	Blank Spike (mg/kg)			
Parameter	Spike	Result	Rec (%)	CL
Diesel Range Organics (DRO)	62.5	66.6	107	55.0-137
Surrogates				
o-Terphenyl			101	40.0-140

Batch Information

Analytical Batch: XGC2435
Analytical Method: SW-846 8015C DRO
Instrument: GC6
Analyst: DTF

Prep Batch: XXX2905
Prep Method: SW-846 3541
Prep Date/Time: 08/09/2012 10:17
Spike Init Wt./Vol.: 32 g Extract Vol: 10 mL
Dupe Init Wt./Vol.: Extract Vol:

Matrix Spike Summary

Original Sample ID: 31202433008 (99DPT-06 (6-7ft))
MS Sample ID: 84479
MSD Sample ID: 84480

Analysis Date: 08/10/2012 01:36
Analysis Date: 08/10/2012 02:05
Analysis Date: 08/10/2012 02:33
Matrix: Soil-Solid as dry weight

QC for Samples: 31202433008, 31202433009, 31202433010, 31202433011, 31202433012, 31202433013, 31202433014, 31202433015, 31202433016

Results by SW-846 8015C DRO

		Matrix Spike (mg/kg)			Spike Duplicate (mg/kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Diesel Range Organics (DRO)	16.7	85.1	110	109	93.4	116	107	40.0-140	6.1	30.00
Surrogates										
o-Terphenyl				88.9			86.5	40.0-140		

Batch Information

Analytical Batch: XGC2435
Analytical Method: SW-846 8015C DRO
Instrument: GC6
Analyst: DTF

Prep Batch: XXX2905
Prep Method: SW-846 3541
Prep Date/Time: 08/09/2012 10:17
MS Init Wt./Vol.: 32.14 g Extract Vol.: 10 mL
MSD Init Wt./Vol.: 29.29 g Extract Vol.: 10 mL

Print Date: 08/15/2012

N.C. Certification # 481

CHAIN OF CUSTODY

SGS ANALYTICAL PERSPECTIVES
5500 Business Drive
Wilmington, NC 28405
+1 910 350 1903
www.sgs.com

SGS ANALYTICAL PERSPECTIVES

CLIENT: CATLIN / NCDOT
CONTACT: Ben Ashba @ CATLIN PHONE NO: (910) 452-5861
PROJECT: NCDOT Parcel 99 SITE / PWSID / WBS #: 35781.1.2
REPORTS TO: Ben @ CATLIN U-3315 Pitt County
EMAIL: ben.ashba@catlinusa.com
INVOICE TO: NCDOT QUOTE # P.O. NUMBER NCDOT

SGS Reference #: 512433

PAGE 1 OF 2

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	# CONTAINERS	SAMPLE TYPE (C=COMP, G=GRAB)	PRESERVATIVES USED	MeOH	HCl	ANALYSES REQUIRED: TPH-DRO 8015B	6200B	625 BN	REMARKS
	99 DPT-14	7.31.12	1700	H2O	4	G		✓	✓				HOT
	99 DPT-01 (1-2')		745	SOIL	3		✓						
	99 DPT-01 (7-8')		800										
	99 DPT-02 (3-4')		820										
	99 DPT-03 (6-7')		850										HOT
	99 DPT-04 (7-8')		910										
	99 DPT-05 (4-5')		930										
	99 DPT-06 (6-7')		1000										HOT
	99 DPT-07 (6-7')		1140										
	99 DPT-08 (6-7')		1210										maybe Hot

COLLECTED/RELINQUISHED BY: (1)	DATE	TIME	RECEIVED BY:	REPORT LEVEL: ☐ Level I ☒ Level II ☐ Level IV	REQUESTED TURNAROUND TIME: ☐ Rush: ☒ Standard
Relinquished By: (2)	8.1.12	1400			
	Date	Time	Received By:	SPECIAL DELIVERABLES: State of Origin: NC ☐ Trust Fund	
	8/1/12	1655		☐ DoD ☒ EDD: Summary Other:	
Relinquished By: (3)	Date	Time	Received By:	SPECIAL INSTRUCTIONS:	
Received For Laboratory By:	Date	Time	CoC Seal: INTACT BROKEN ABSENT Sample Receipt Temp: C 1.5 0.5	Shipping Carrier: Shipping Ticket No:	Notes:

SGS-00055 (08/12)

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

White - Retained by Lab
Yellow - Retained by Client

CHAIN OF CUSTODY

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

CLIENT: CATLIN / NCDOT
CONTACT: Ben Ashby @ CATLIN PHONE NO: (910) 452-5861
PROJECT: NCDOT Parcel 99 SITE / PWSID / WBS #: 35781.1.2
REPORTS TO: Ben @ CATLIN U-3315
EMAIL: ben.ashby@catlinusa.com Pitt County
INVOICE TO: NCDOT QUOTE # P.O. NUMBER NCDOT

SGS Reference #: 31202433

PAGE 2 OF 2

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	# CONTAINERS	SAMPLE TYPE (C=COMP, G=GRAB)	PRESERVATIVES USED: MeOH		HCl								REMARKS
							ANALYSES REQUIRED: TPH DRO 1664	6200B	625 BN								
	99 DPT-09 (6-7')	7.31.12	1230	SOIL	3	G	✓										HOT
	99 DPT-10 (6-7')		1250														
	99 DPT-11 (6-7')		1310														
	99 DPT-12 (6-7')		1345														
	99 DPT-13 (6-7')		1500														HOT
	99 DPT-14 (4-4.4')		1640														
	99 DPT-13	7.31.12	1515	H2O	4	G			✓	✓							HOT

COLLECTED/RELINQUISHED BY: (1)	DATE	TIME	RECEIVED BY:	REPORT LEVEL:	REQUESTED TURNAROUND TIME:
Ben Ashby	8.1.12	1409		☐ Level I ☒ Level II ☐ Level IV	☐ Rush: ☒ Standard
Relinquished By: (2)	Date	Time	Received By:	SPECIAL DELIVERABLES: State of Origin:	☐ Trust Fund
	8/1/12	1655		☐ DoD ☒ EDD: Summary	Other:
Relinquished By: (3)	Date	Time	Received By:	SPECIAL INSTRUCTIONS:	
Received For Laboratory By:	Date	Time	CoC Seal: INTACT BROKEN ABSENT Sample Receipt Temp: C 1.5/0.5	Shipping Carrier: Shipping Ticket No:	Notes:

SGS-00055 (06/12)

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

White - Retained by Lab
Yellow - Retained by Client

SGS North America Inc.

Sample Receipt Checklist (SRC)

Client: **NCDOT-Catlin** Work Order No.: **31202433**

1. ___ Shipped
   X Hand Delivered

2. X COC Present on Receipt
   ___ No COC
   ___ Additional Transmittal Forms

3. ___ Custody Tape on Container
   X No Custody Tape

4. X Samples Intact
   ___ Samples Broken / Leaking

5. X Chilled on Receipt Actual Temp.(s) in °C: 1.5, 0.5
   ___ Ambient on Receipt
   ___ Walk-in on Ice; Coming down to temp.
   ___ Received Outside of Temperature Specifications

6. X Sufficient Sample Submitted
   ___ Insufficient Sample Submitted

7. ___ Chlorine absent
   ___ HNO3 < 2
   ___ HCL < 2
   ___ Additional Preservatives verified (see notes)

8. X Received Within Holding Time
   ___ Not Received Within Holding Time

9. X No Discrepancies Noted
   ___ Discrepancies Noted
   ___ NCDENR notified of Discrepancies*

10. X No Headspace present in VOC vials
    ___ Headspace present in VOC vials >6mm

Notes: _____

Comments: _____

Inspected and Logged in by: AV

Date: Thu-8/2/12 00:00

*NCDENR must be notified when collection, holding time or preservation requirements are not met. MI_11.6

APPENDIX D
PHOTOGRAPHS

PARCELS 97, 98, AND 99, WALTER L. WILLIAMS – HESS
210 W. 10TH STREET

From near Southeast corner of gasoline canopy looking Northwest, diesel and kerosene dispensers in background.

From Northwest side of kerosene and diesel dispensers looking South.

PARCELS 97, 98, AND 99, WALTER L. WILLIAMS – HESS
210 W. 10TH STREET

From near Southwest corner of convenience store looking Southwest across proposed easement line and soil and groundwater sample location 99DPT-13.

From West side of proposed catch basin 1004 location (boring 99DPT-14 soil and groundwater sample location) looking East across Parcel 101.