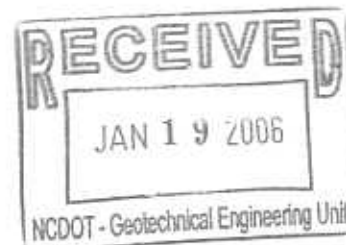


January 19, 2006

Mr. Greg Smith
North Carolina Department of Transportation
Geotechnical Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589



Reference: Preliminary Site Assessment
Timothy Coward Property
5959 US 17 North
Old Ford, Beaufort County, North Carolina
NCDOT Project R-2510C
WBS Element 34440.1.1
Earth Tech Project No. 90389

Dear Mr. Smith:

Earth Tech of North Carolina, Inc., (Earth Tech) has completed the Preliminary Site Assessment conducted at the above-referenced property. The work was performed in accordance with the Technical and Cost proposal dated November 17, 2005, and the North Carolina Department of Transportation's (NCDOT's) Notice to Proceed dated November 22, 2005. Activities associated with the assessment consisted of collecting soil and groundwater samples for laboratory analysis, and reviewing applicable North Carolina Department of Environment and Natural Resources (NCDENR) records. The purpose of this report is to document the field activities, present the laboratory analyses, and provide recommendations regarding the property.

Location and Description

The Jack Cherry Property is located at 5959 US 17 North in Old Ford, North Carolina. The property is situated on the west side of US 17 at the intersection of US 17 and NC 171 (Figure 1). Based on information supplied by the NCDOT and the site visit, Earth Tech understands that the site is an active repair shop (Stevenson Motorsports). According to the owner, no underground storage tanks (USTs) are present on the property. No evidence of USTs was noted during the site visit. The property consists of a single-story commercial-type building with a gravel drive (Figure 2). The building consists of two service/repair bays on each side of a central office area. Of particular interest to the NCDOT is the service/repair bays where hydraulic lifts may be used. A nearby landowner familiar with the site's operations indicated that no hydraulic lifts are present in the building. However, Earth Tech was not able to observe the interior of the building to verify the

presence or absence of hydraulic lifts. Because of the unknown status of potential USTs, the NCDOT requested a Preliminary Site Assessment to evaluate the soils on the property.

Earth Tech reviewed the North Carolina Department of Environment and Natural Resources (NCDENR) Incident Management database and no incident number was listed for this location. Earth Tech also reviewed the UST registration database to evaluate if USTs were present at the location. No USTs were registered for this address.

Geophysical Survey

Prior to Earth Tech's mobilization to the site, Schnabel Engineering conducted a geophysical survey to evaluate if USTs were present on the property. The geophysical survey consisted of an electromagnetic survey with a follow up with a ground penetrating radar (GPR) survey.

Several anomalies were detected in the geophysical survey. One anomaly was attributed to possible USTs. The anomaly was located approximately 60 feet from the southeast corner of the building between the building and US 17. The GPR results indicated two potential USTs, each about 3 feet in diameter and 5 feet long. These measurements suggest tanks equivalent to 250-gallons in size each and at a depth of about one foot below ground surface (Figure 2). The locations of the borings for the site assessment were based on this information. A detailed report of the geophysical survey is presented in Attachment A.

Site Assessment Activities

On December 20, 2005, Earth Tech mobilized to the site to conduct a Geoprobe[®] direct push investigation to evaluate soil conditions on the property. Continuous sampling using direct push technology (Regional Probing of Wake Forest, North Carolina) resulted in generally good recovery of soil samples from the direct-push holes. Soil samples were collected and contained in 4-foot long acetate sleeves inside the direct push sampler. Each of these sleeves was divided in half for soil sample screening. Each 2-foot interval was placed in a resealable plastic bag and the bag was set aside for a sufficient amount of time to allow volatilization of organic compounds from the soil to the bag headspace. The probe of a flame-ionization detector (FID) was inserted into the bag and the reading was recorded. After terminating the sample hole, the soil sample from the depth interval with the highest FID reading was submitted to Paradigm Analytical Laboratories, Inc., in Wilmington, North Carolina, using standard chain-of-custody procedures. The laboratory analyzed the soil samples for total petroleum hydrocarbons (TPH) using extraction methods 3550 (diesel range organics) and 5030 (gasoline range organics).

Seven direct-push holes (SM-1 through SM-7) were advanced at the site to a depth of 4 feet as shown in Figure 2 and Attachment B. The borings were located to evaluate the areas where the geophysical survey identified potential USTs and the area in front of the service/repair bay (Attachment C). Borings SM-1 and SM-2 were located to evaluate the potential UST anomaly. Borings SM-3 through SM-6 were located to assess the horizontal extent of the potential soil

contamination as defined by the field screening readings. Boring SM-7 was located to evaluate the soils in front of one of the service/repair bays. The lithology encountered by the direct-push samples generally was consistent throughout the site below the surface treatment. Borings SM-1, SM-5, and SM-6 encountered about 10 to 18 inches of fill material over 4 to 6 inches of concrete. According to a local landowner, these borings coincide with the location of the old US 17 before it was relocated to its current position. Borings SM-2 and SM-3 encountered about 10 inches of fill material. Borings SM-4 and SM-7 encountered approximately 4 inches of topsoil or gravel. Below the surface treatment to a depth of 4 feet was a medium to dark brown silty sand. Groundwater was encountered in the initial boring at a depth of about 4 feet. As a result the remaining borings were terminated at a depth of 4 feet. Based on field screening, soil samples were submitted for laboratory analysis, which are summarized in Table 1.

The shallow groundwater depth suggests that any contamination present in the soil would impact the groundwater. To evaluate the groundwater conditions, a water sample was collected from boring SM-1 (Figure 2), which was in a location that appeared to be representative of subsurface conditions associated with the possible UST on the property. The groundwater sample was collected using the direct-push equipment. The direct push probe was advanced into the groundwater and the screen exposed. The water sample was collected with a peristaltic sampling pump. After purging the well to reduce turbidity, the water sample was transferred directly into laboratory-supplied containers. The containers were placed on ice and transported to the laboratory for analysis of volatile organic compounds using EPA Method 6230D and semivolatile organic compounds using EPA Method 625.

Analytical Results

Based on the soil laboratory reports, summarized in Table 1 and presented in Attachment D, petroleum hydrocarbon compounds were detected in four of the seven soil samples collected from the site (Figure 3). The soil sample collected from boring SM-1 contained total petroleum hydrocarbons (TPH) identified as diesel fuel (DRO) at a concentration of 209 milligrams per kilogram (mg/kg) and TPH identified as gasoline (GRO) at a concentration of 487 mg/kg. The soil sample collected from boring SM-2 contained DRO at a concentration of 17.6 mg/kg; the soil sample collected from boring SM-5 contained a DRO concentration of 234 mg/kg; and the soil sample collected from boring SM-7 contained a DRO concentration of 76.1 mg/kg. No TPH concentrations identified as GRO were detected in the soil samples from borings SM-2, SM-5 or SM-7. No TPH concentrations were detected in any of the remaining soil samples. According to the North Carolina Underground Storage Tank Section's Underground Storage Tank Closure Policy dated August 24, 1998, the action level for TPH analyses is 10 mg/kg for both gasoline and diesel fuel. However, that agency's "Guidelines for Assessment and Corrective Action," dated April 2001, does not allow for use of TPH analyses for confirmation of the extent of petroleum contamination or its cleanup. As a result, while TPH concentrations are no longer applicable in determining if soil contamination is present, this analysis is a legitimate screening tool. Based on the TPH action level for UST closures, the assumed action level for this report is 10 mg/kg for both DRO and GRO. The soil samples from borings SM-1, SM-2, SM-5, and SM-7 contained DRO concentrations above the 10 mg/kg assumed action level. The soil sample from boring SM-1 contained a GRO concentration above the 10 mg/kg

assumed action level.

The laboratory reports for the groundwater, summarized in Table 2 and presented in Attachment D, indicate that several compounds were detected in the sample from boring SM-1. The compounds detected in the groundwater sample included volatile organic compounds. Of the compounds detected, benzene (15 $\mu\text{g}/\text{l}$) was present at a concentration above its groundwater quality standard of 1 $\mu\text{g}/\text{l}$.

Conclusions and Recommendations

A Preliminary Site Assessment was conducted to evaluate the Timothy Coward Property located at 5959 US 17 North in Old Ford, Beaufort County, North Carolina. Seven soil borings were advanced to evaluate the soil and groundwater conditions on the property. The laboratory reports of four of the seven soil samples from these borings suggest that DRO and GRO concentrations are present above the assumed action level. One groundwater sample was collected for analysis. The analytical results of the groundwater sample (boring SM-1) indicated that benzene was present at a concentration above the groundwater quality standards. The most obvious source of the contamination at the site is the USTs identified by the geophysical survey. However, the spatial orientation of the contamination as shown on Figure 3 and the shallow depth of the potential USTs may suggest one or more surface spills, particularly with the proximity of old US 17.

To evaluate the volume of soil requiring possible remediation, the soil samples with TPH concentrations above 10 mg/kg were considered. The analytical results of the soil samples suggest that the soil from borings SM-1, SM-2, SM-5, and SM-7 contained TPH concentrations above the assumed action level. A review of the field screening readings (Table 1) suggests that a maximum contaminated soil thickness of 4 feet (from ground surface to groundwater at 4 feet) is likely. The volume of potentially affected soil was estimated based on the 10 mg/kg isoconcentration contour shown on Figure 3, where two areas of contamination were detected. The area encompassing borings SM-1, SM-2, and SM-7 averaged 45 feet in width (from the property line to the north) and 55 feet in length. With a thickness of 4 feet, the estimated volume of contaminated soil in this area is about 367 cubic yards. The area encompassing boring SM-5 averaged 30 feet in width and 30 feet in length. With a thickness of 4 feet, the estimated volume of contaminated soil in this area is about 133 cubic yards. The total estimated volume of contaminated soil is about 500 cubic yards. This volume is estimated from TPH analytical data, which are no longer valid for remediation of sites reported after January 2, 1998. After this date, MADEP EPH/VPH and EPA Method 8260/8270 analyses will likely be required to confirm cleanup. However, these analyses do not correlate exactly with TPH data and, as a result, the actual volume of contaminated soil may be higher or lower.

Earth Tech appreciates the opportunity to work with the NCDOT on this project. Because contamination was detected at the site, Earth Tech recommends that a copy of this report be submitted to the Division of Waste Management, UST Section, in the Washington Regional Office. If you have any questions, please contact me at (919)854-6238.

Sincerely,



Michael W. Branson, P.G.
Project Manager

Attachments

c: Project File



TABLE 1
FIELD SCREENING AND ANALYTICAL RESULTS
COWARD PROPERTY
OLD FORD, BEAUFORT COUNTY, NORTH CAROLINA
NCDOT PROJECT NO. 9.689002T (R-967CA)
EARTH TECH PROJECT NO. 90389

LOCATION	DEPTH (m)	OVA READING (ppm)	SAMPLE ID	ANALYTICAL RESULTS (mg/kg)	ACTION LEVEL (mg/kg)
SM-1	0 - 2	3,821			
	2 - 4	36,100	SM-1	DRO (209) GRO (487)	10 10
SM-2	0 - 2	115			
	2 - 4	1,195	SM-2	DRO (17.6) GRO (BQL)	10 10
SM-3	0 - 2	161	SM-3	DRO (BQL) GRO (BQL)	10 10
	2 - 4	125			
SM-4	0 - 2	0.95			
	2 - 4	1.33	SM-4	DRO (BQL) GRO (BQL)	10 10
SM-5	0 - 2	11.79			
	2 - 4	352	SM-5	DRO (234) GRO (BQL)	10 10
SM-6	0 - 2	14			
	2 - 4	254	SM-6	DRO (BQL) GRO (BQL)	10 10
SM-7	0 - 2	5	SM-7	DRO (76.1) GRO (BQL)	10 10

DRO - Diesel range organics
GRO - Gasoline range organics
BQL - Below quantitation limit.
ppm - parts per million.
mg/kg - milligrams per kilogram.

BOLD values are above the assumed action level.

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
COWARD PROPERTY
OLD FORD BEAUFORT COUNTY, NORTH CAROLINA
NCDOT PROJECT NO. 9.689002T (R-967CA)
EARTH TECH PROJECT NO. 90389

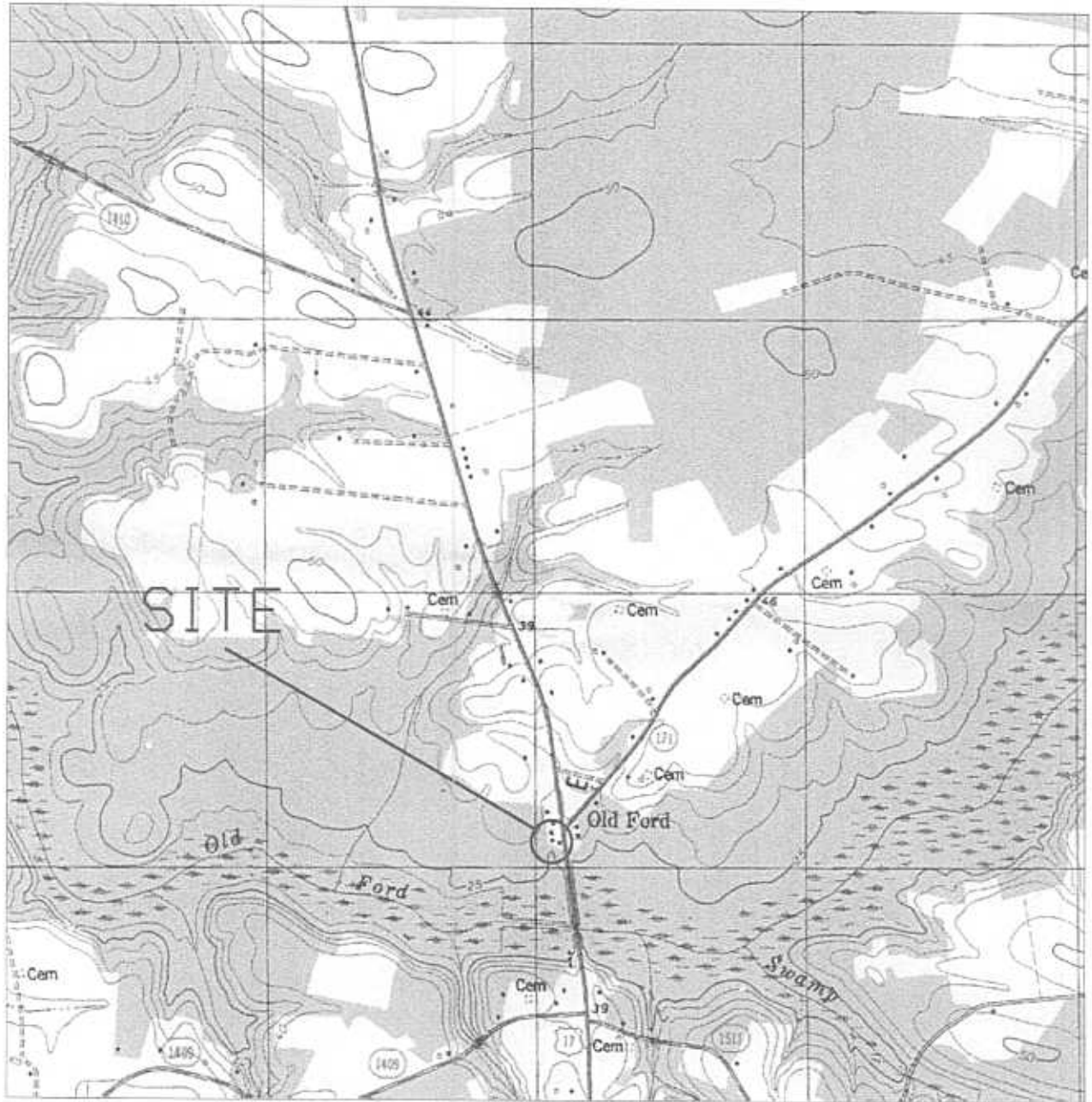
COMPOUND	CONCENTRATION	GROUNDWATER QUALITY STANDARD
Benzene	15	1
Toluene	1.93	1000
Ethylbenzene	7.68	550
Xylenes	18.5	530
MTBE	<0.5	200
n-Butylbenzene	<0.5	70
sec-Butylbenzene	1.93	70
tert-Butylbenzene	<0.5	70
1,3,5-Trimethylbenzene	5.25	350
1,2,4-Trimethylbenzene	7.41	350
Isopropyl ether	<0.5	70
Isopropylbenzene	4.77	70
n-Propylbenzene	3.31	70
p-Isopropyltoluene	2.55	NE
Naphthalene (Method 6230D)	3.63	21
Phenol	<10	300
Naphthalene (Method 625)	<10	21

All concentrations expressed as micrograms per liter.

BOLD values are above the method detection limit.

Shaded values are above the Groundwater Quality Standard.

FIGURES



SCALE 1:24,000



SOURCE: U.S. GEOLOGICAL SURVEY 7.5 MIN QUADRANGLE: OLD FORD, NC (1979)

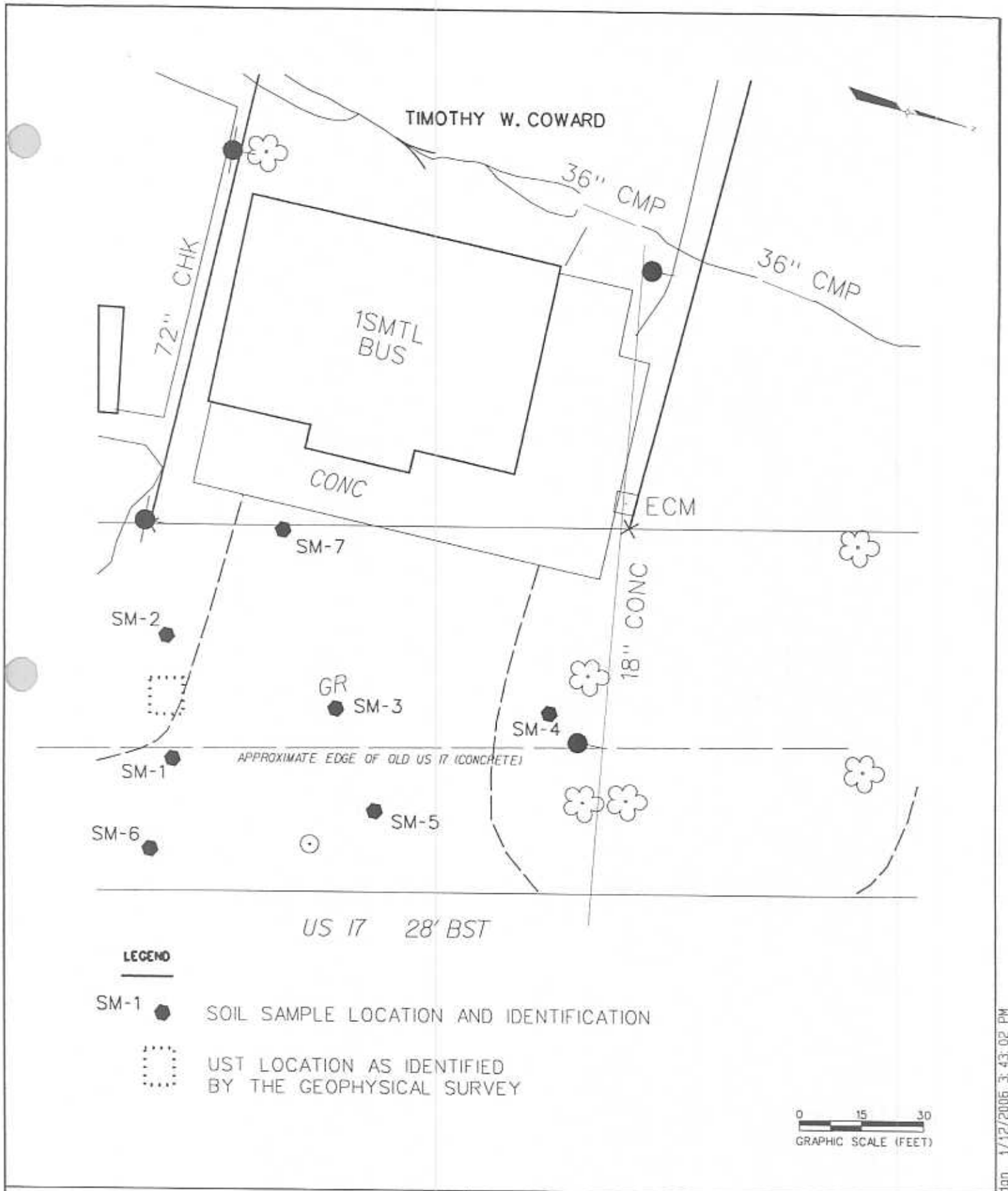


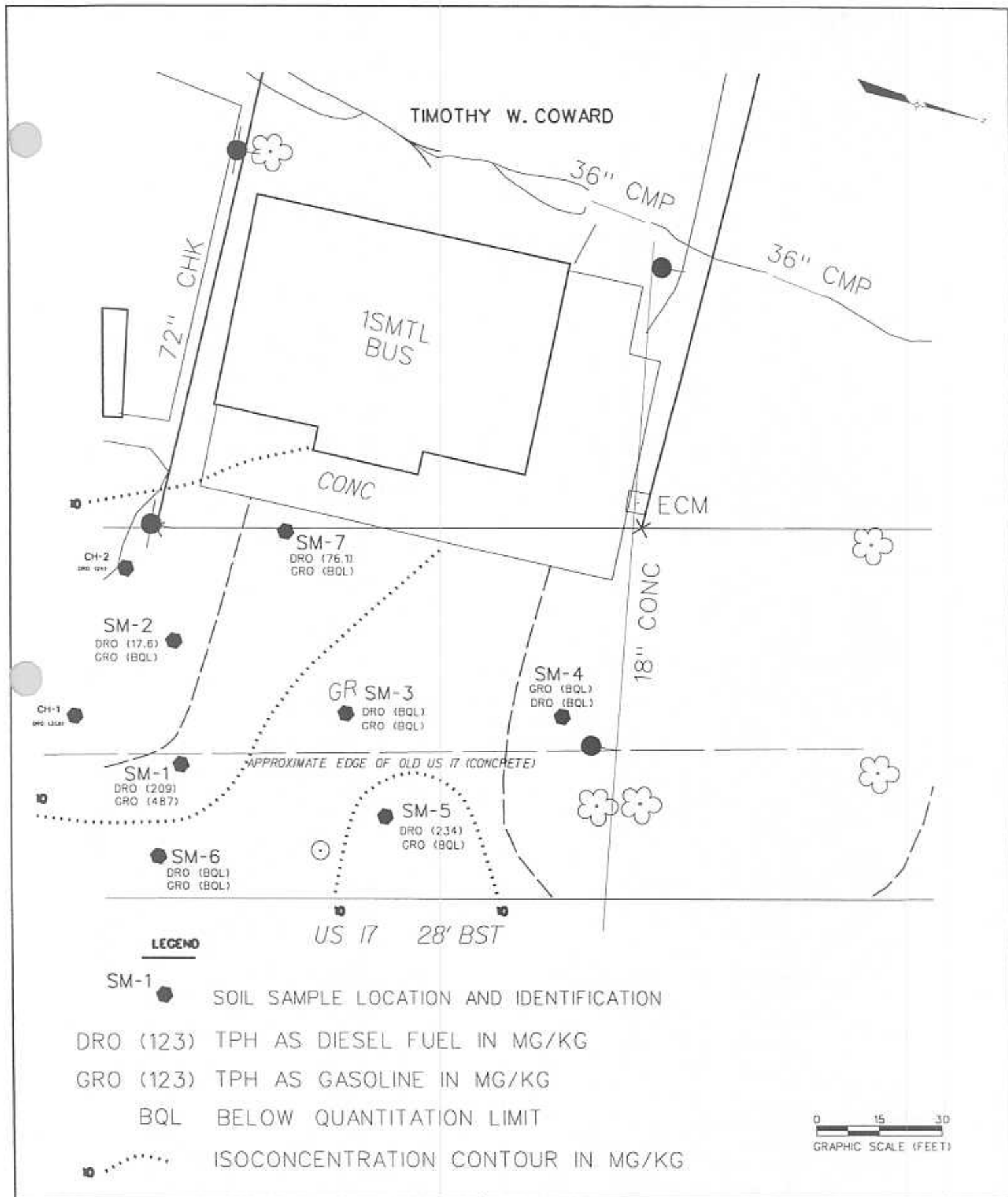
FIGURE 1
VICINITY MAP
COWARD PROPERTY

OLD FORD, BEAUFORT COUNTY, NORTH CAROLINA

DECEMBER 2005

90389





LEGEND

SM-1 ● SOIL SAMPLE LOCATION AND IDENTIFICATION

DRO (123) TPH AS DIESEL FUEL IN MG/KG

GRO (123) TPH AS GASOLINE IN MG/KG

BQL BELOW QUANTITATION LIMIT

⋯ ISOCONCENTRATION CONTOUR IN MG/KG



FIGURE 3
SOIL ANALYTICAL RESULTS MAP
COWARD PROPERTY

OLD FORD, BEAUFORT COUNTY, NORTH CAROLINA

DECEMBER 2005

90389

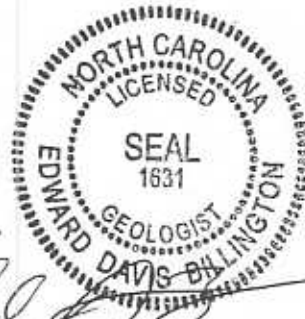
R2510C_Rdy_psh_017.dgn 1/12/2006 3:43:47 PM

ATTACHMENT A

North Carolina Department of Transportation

**GEOPHYSICAL SURVEYS
FOR RIGHT-OF-WAY PROPERTIES**

State Project R-2510C, WBS Element 34440.1.1
US 17 from South of SR 1001 to North of NC 171
Beaufort County, North Carolina



January 12, 2006
Project Number 05210014.01-04



11-A Oak Branch Drive, Greensboro, North Carolina 27407
Phone (336) 274-9456; Fax (336) 274-9486

1.0 INTRODUCTION

The work described in this report was conducted by Schnabel Engineering under our contract with the NCDOT. The work was conducted at the locations indicated to support environmental assessment of the subject parcels. The purpose of the geophysical surveys was to locate possible metal underground storage tanks (UST's) and associated metal product lines in the accessible areas of the sites.

Schnabel Engineering conducted geophysical surveys on November 29 & 30 and December 1, 2, 13 & 14 2005, in the accessible areas of the proposed sections of the parcels owned by W [REDACTED]

[REDACTED] Timothy Coward (5959 US 17 North), [REDACTED]

Photographs of these properties and the UST'S markouts are included on Figures 1 and 2.

The geophysical investigation consisted of electromagnetic (EM) induction surveys using a Geonics EM61-MK2 instrument. The EM61 metal detector is used to locate metal objects buried up to about eight feet below ground surface. Ground-penetrating radar (GPR) investigations of selected EM61 anomalies were conducted using a Geophysical Survey Systems SIR-2000 system equipped with a 400 MHz antenna. A Fisher Gemini-3 was used in the conduction mode to trace exposed vent pipes and product lines. Photographs of these instruments are shown in Figure 3.

2.0 FIELD METHODOLOGY

2.1 Location Control

Locations of geophysical data points and site features 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 feet. The locations of existing site features (building, curbs, signs, etc.) were recorded for later correlation with the geophysical data and for location references to the NCDOT drawings.

2.2 Data Collection

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 two orthogonal directions over anomalous EM readings that did not appear to be caused by known metal objects. The GPR data were reviewed in the field to evaluate the possible presence of UST's. The GPR data also were recorded digitally and later transferred to a desktop computer for further review. The Gemini-3 was used in the conduction mode on some of the properties by grounding the transmitter and clamping it onto an exposed vent pipe or product line, and then tracing the location of the charged pipe out with the receiver.

Preliminary results were sent to Mike Branson of Earth Tech on December 16, 2005.

3.0 DISCUSSION OF RESULTS

The contoured EM61 data are shown on Figures 4 through 11. The EM61 early time gate results are plotted on Figures 4, 6, 8, and 10. The early time gate data provide the most sensitive detection of metal object targets, regardless of size. Figures 5, 7, 9, and 11 show the difference between the response of the top and bottom coils of the EM61 instrument (differential response). The difference is taken to remove the effect of surface and very shallowly buried metallic objects. Typically, the differential response emphasizes anomalies from deeper and larger objects such as UST's.

[REDACTED]

[REDACTED]

SC [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

4.0 CONCLUSIONS

Our evaluation of the geophysical data collected over the five parcels on State Project R-2510-C in Beaufort County, NC indicate the following:

- The geophysical data indicate the presence of possible UST's within the survey areas on the [REDACTED] Coward properties, as detailed below.

- [REDACTED]

- [REDACTED]

- The geophysical data indicate the presence of two UST's on the Coward property. Each possible UST is about three feet in diameter and about five feet in length, with approximate capacities of 250 gallons.

- [REDACTED]

5.0 LIMITATIONS

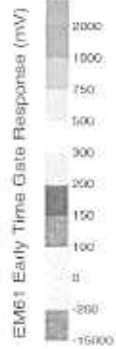
These services have been performed and this report prepared for the North Carolina Department of Transportation in accordance with generally accepted guidelines for conducting geophysical surveys. It is generally recognized that the results of geophysical surveys are non-unique and may not represent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



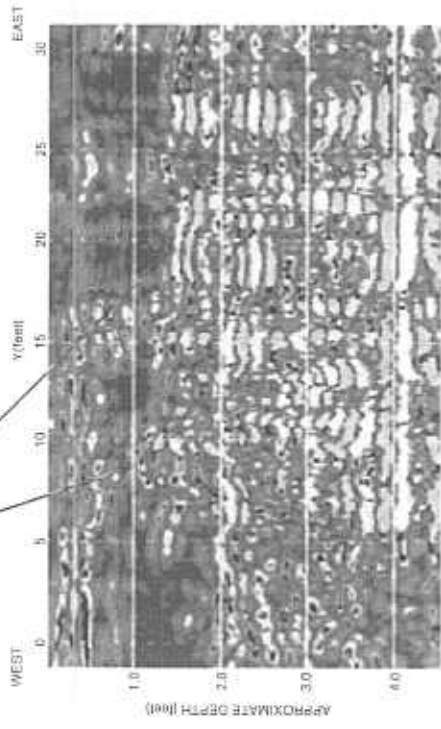
EXPLANATION

EM1 SURVEY AREA DATA ACQUIRED ALONG PARALLEL SURVEY LINES SPACED APPROXIMATELY 1.5 FEET APART

- CITY WIRE
- POLE
- UTILITY
- METALLIC OBJECT
- ↑ TREE
- ↓ UTILITY POLE
- PIPES
- GPR SURVEY AREA
- APPROXIMATE LOCATION OF LOT NOT MARKED ON SURFACE
- ← EXAMPLE GPR LINE



EXAMPLE GPR LINE



Note: The contour plot shows the earliest and most sensitive time gate of the EM1 bottom coil channel in millivolts (mV). The EM data were collected on November 30 through December 2, 2005, using a Geometrics EM1-MK2 instrument. Positioning for EM1 survey provided using a submeter Trimble ProXR5 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 December 13 & 14, 2005, using a Geophysical Survey Systems, Inc. SIFR-2000 equipped with a 400 MHz antenna.

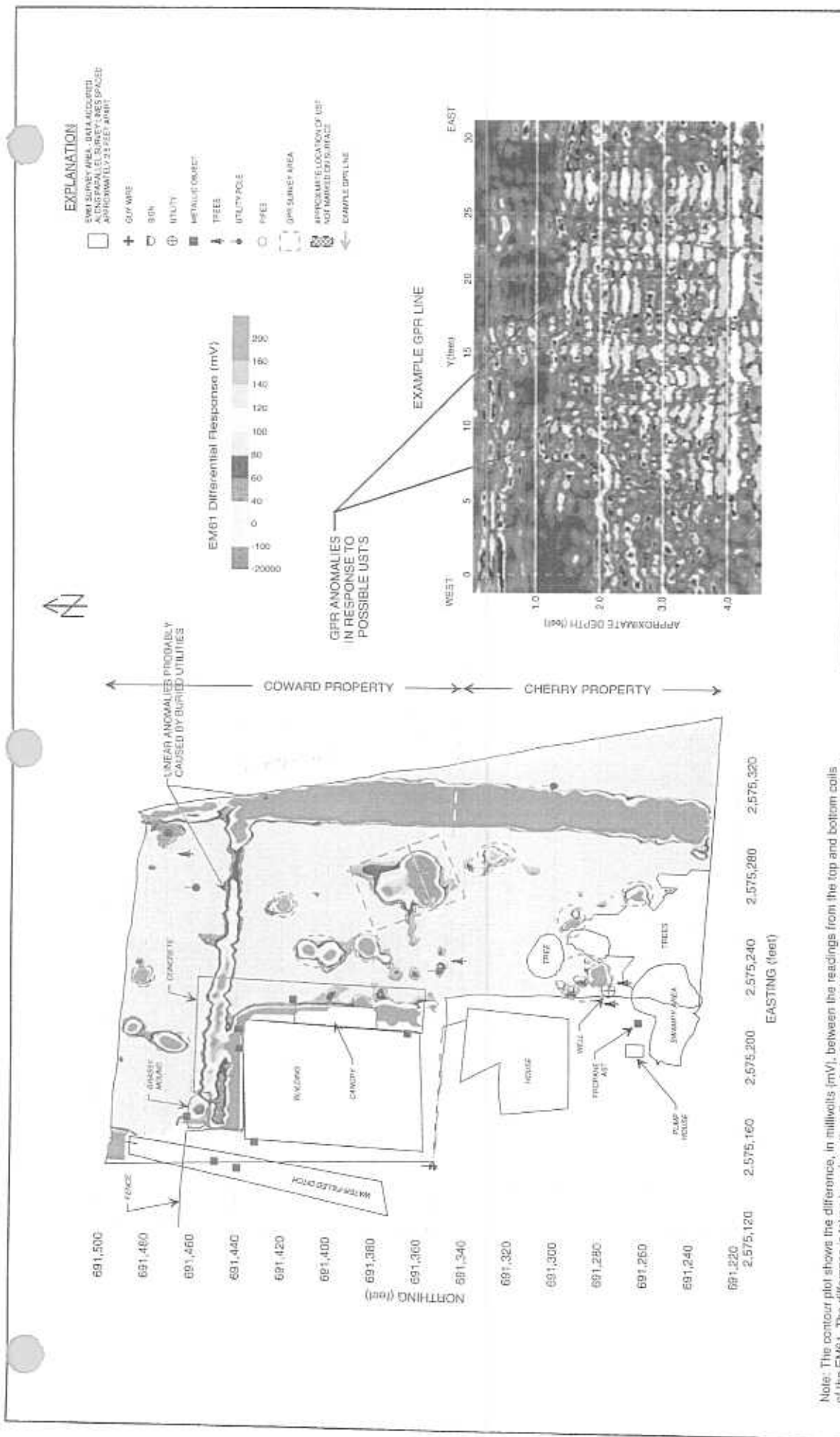


NC Department of Transportation
Geotechnical Engineering Unit

Slats Project No. R-2510C
Washington, North Carolina

**COWARD & CHERRY
PROPERTIES EM1 EARLY
TIME GATE RESPONSE
WITH GPR IMAGE**

FIGURE B



Schnabel
Schnabel Engineering

NC Department of Transportation
Geotechnical Engineering Unit

State Project No. R-2510C
Washington, North Carolina

**COWARD & CHERRY
PROPERTIES EM81
DIFFERENTIAL RESPONSE
WITH GPR IMAGE**

FIGURE 9

Note: The contour plot shows the difference, in millivolts (mV), between the readings from the top and bottom coils of the EM81. The difference is taken to reduce the effect of shallow metal objects and emphasize anomalies caused by deeper metallic objects, such as pipes and tanks. The EM data were collected on November 30 through December 2, 2005, using a Geonics EM81-MK2 instrument. Positioning for the EM81 survey provided using a submeter Trimble ProXR5 GPS system. Coordinates are in the US State Plane System, North Carolina 3200 Zone, using the NAD 1983 datum. GPR data were acquired on December 13 and 14, 2005, using a Geophysical Survey Systems, Inc. SIR-2000 equipped with a 400 MHz antenna.

ATTACHMENT B

TEST BORING REPORT

PROJECT WASHINGTON PSA5 - COWARD PROPERTY
CLIENT NCDOT
PROJECT NUMBER 90389
CONTRACTOR REGIONAL PROBING
EQUIPMENT GEOPROBE

BORING NUMBER SM-1
PAGE 1
ELEVATION _____
DATE 12/20/05
DRILLER OPPER
PREPARED BY BRANSON

DEPTH IN FEET	OVA (ppm)	BLOWS PER 6 INCHES	SAMPLE NUMBER	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
	3,821				10" SAND/CLAY OVER 4" CONCRETE, MEDIUM TO DARK BROWN SAND, MOIST, MODERATE ODOR.
	36,100				AS ABOVE, MOIST, MODERATE ODOR. SUBMIT FOR LABORATORY ANALYSIS.
5.0					GROUNDWATER AT 3 FEET. BORING TERMINATED AT 4 FEET.
10.0					
15.0					
20.0					

TEST BORING REPORT

PROJECT WASHINGTON PSAs - COWARD PROPERTY

BORING NUMBER SM-2

CLIENT NCDOT

PAGE 1

PROJECT NUMBER 90389

ELEVATION _____

CONTRACTOR REGIONAL PROBING

DATE 12/20/05

EQUIPMENT GEOPROBE

DRILLER OPPER

PREPARED BY BRANSON

DEPTH IN FEET	OVA (ppm)	BLOWS PER 6 INCHES	SAMPLE NUMBER	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
	115				10" SAND/CLAY FILL, MEDIUM TO DARK BROWN SILTY SAND, DRY, NO ODOR.
	1,195				AS ABOVE, DRY, MOIST TO WET, SLIGHT ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
5.0					BORING TERMINATED AT 4 FEET.
10.0					
15.0					
20.0					

TEST BORING REPORT

PROJECT WASHINGTON PSAs - COWARD PROPERTY
CLIENT NCDOT
PROJECT NUMBER 90389
CONTRACTOR REGIONAL PROBING
EQUIPMENT GEOPROBE

BORING NUMBER SM-3
PAGE 1
ELEVATION _____
DATE 12/20/05
DRILLER OPPER
PREPARED BY BRANSON

DEPTH IN FEET	OVA (ppm)	BLOWS PER 6 INCHES	SAMPLE NUMBER	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
	161				10" SAND/CLAY FILL, DARK BROWN TO BLACK, MEDIUM-GRAINED SAND, MOIST, SLIGHT ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
	125				AS ABOVE, MOIST, MODERATE ODOR.
5.0					
10.0					
15.0					
20.0					

BORING TERMINATED AT 4 FEET.

TEST BORING REPORT

PROJECT WASHINGTON PSAs - COWARD PROPERTY

CLIENT NCDOT

PROJECT NUMBER 90389

CONTRACTOR REGIONAL PROBING

EQUIPMENT GEOPROBE

BORING NUMBER SM-5

PAGE 1

ELEVATION _____

DATE 12/20/05

DRILLER OPPER

PREPARED BY BRANSON

DEPTH IN FEET	OVA (ppm)	BLOWS PER 6 INCHES	SAMPLE NUMBER	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
	11.79				18" FILL OVER 6" CONCRETE, DRY, NO ODOR.
	352				MEDIUM TO DARK BROWN SILTY SAND, MOIST, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
5.0					BORING TERMINATED AT 4 FEET.
10.0					
15.0					
20.0					

TEST BORING REPORT

PROJECT WASHINGTON PSAs - COWARD PROPERTY

BORING NUMBER SM-6

CLIENT NCDOT

PAGE 1

PROJECT NUMBER 90389

ELEVATION _____

CONTRACTOR REGIONAL PROBING

DATE 12/20/05

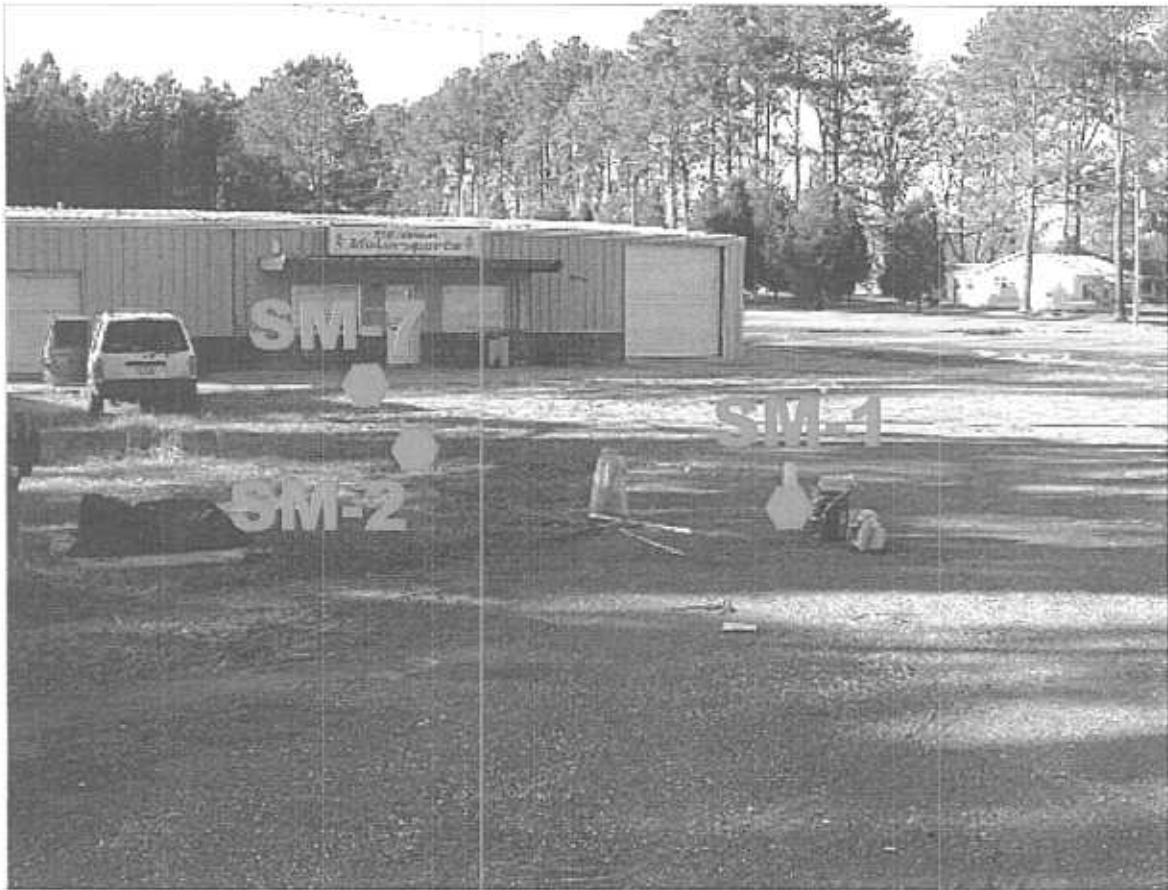
EQUIPMENT GEOPROBE

DRILLER OPPER

PREPARED BY BRANSON

DEPTH IN FEET	OVA (ppm)	BLOWS PER 6 INCHES	SAMPLE NUMBER	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
	14				18" FILL OVER 6" CONCRETE, DRY, NO ODOR.
	254				MEDIUM TO DARK BROWN SILTY SAND, MOIST, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
5.0					BORING TERMINATED AT 4 FEET.
10.0					
15.0					
20.0					

ATTACHMENT C





ATTACHMENT D

PARADIGM ANALYTICAL LABORATORIES, INC.

5500 Business Drive
Wilmington, North Carolina 28405
(910) 350-1903
Fax (910) 350-1557

Mr. Mike Branson
Earth Tech
701 Corporate Dr. Suite 475
Raleigh NC 27607

Report Number: G204-502

Client Project: NCDOT-Coward

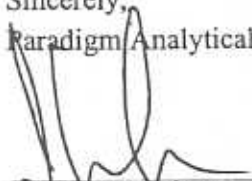
Dear Mr. Branson:

Enclosed are the results of the analytical services performed under the referenced project. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or the services performed during this project, please call Paradigm at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using Paradigm Analytical Labs for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,
Paradigm Analytical Laboratories, Inc.



Laboratory Director
J. Patrick Weaver

1/6/06
Date

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: SM-1
 Client Project ID: NCDOT-Coward
 Lab Sample ID: G204-502-1
 Lab Project ID: G204-502
 Report Basis: Dry Weight

Analyzed By: MJC
 Date Collected: 12/20/05 13:00
 Date Received: 12/22/05
 Matrix: Soil
 Solids 86.04

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	487	69.7	5030	10	01/03/06
Diesel Range Organics	209	6.99	3545	1	12/29/05


Reviewed By: 
 TPH_LIMS_v1 82.XLS 2 of 14

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: SM-2
Client Project ID: NCDOT-Coward
Lab Sample ID: G204-502-2
Lab Project ID: G204-502
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 12/20/05 13:10
Date Received: 12/22/05
Matrix: Soil
Solids 85.29

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	7.03	5030	1	12/29/05
Diesel Range Organics	17.6	6.93	3545	1	12/30/05


Reviewed By: 
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Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: SM-3
Client Project ID: NCDOT-Coward
Lab Sample ID: G204-502-3
Lab Project ID: G204-502
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 12/20/05 13:20
Date Received: 12/22/05
Matrix: Soil
Solids 88.26

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.8	5030	1	12/29/05
Diesel Range Organics	BQL	8.09	3545	1	01/03/06


Reviewed By: 
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Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: SM-4
Client Project ID: NCDOT-Coward
Lab Sample ID: G204-502-4
Lab Project ID: G204-502
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 12/20/05 13:30
Date Received: 12/22/05
Matrix: Soil
Solids 83.72

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	7.17	5030	1	12/29/05
Diesel Range Organics	BQL	7.31	3545	1	12/30/05


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Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: SM-5
 Client Project ID: NCDOT-Coward
 Lab Sample ID: G204-502-5
 Lab Project ID: G204-502
 Report Basis: Dry Weight

Analyzed By: MJC
 Date Collected: 12/20/05 13:40
 Date Received: 12/22/05
 Matrix: Soil
 Solids 85.71

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	7	5030	1	12/29/05
Diesel Range Organics	234	7.14	3545	1	12/29/05

Reviewed By: 
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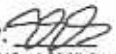
PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: SM-6
Client Project ID: NCDOT-Coward
Lab Sample ID: G204-502-6
Lab Project ID: G204-502
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 12/20/05 14:00
Date Received: 12/22/05
Matrix: Soil
Solids 84.62

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	7.09	5030	1	12/29/05
Diesel Range Organics	BQL	6.99	3545	1	12/30/05

Reviewed By: 
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Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: SM-7
 Client Project ID: NCDOT-Coward
 Lab Sample ID: G204-502-7
 Lab Project ID: G204-502
 Report Basis: Dry Weight

Analyzed By: MJC
 Date Collected: 12/20/05 14:15
 Date Received: 12/22/05
 Matrix: Soil
 Solids 78.34

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	7.66	5030	1	12/29/05
Diesel Range Organics	76.1	7.49	3545	1	12/30/05

Reviewed By: 
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PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles
by GC 6230D

Client Sample ID: SM-1-GW
Client Project ID: NCDOT-Coward
Lab Sample ID: G204-502-8A
Lab Project ID: G204-502

Analyzed By: MJC
Date Collected: 12/20/05 14:30
Date Received: 12/22/05
Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Benzene	15.0	0.500	1	12/23/05
Bromobenzene	BQL	0.500	1	12/23/05
Bromochloromethane	BQL	0.500	1	12/23/05
Bromodichloromethane	BQL	0.500	1	12/23/05
Bromoform	BQL	0.500	1	12/23/05
Bromomethane	BQL	0.500	1	12/23/05
n-Butylbenzene	BQL	0.500	1	12/23/05
sec-Butylbenzene	1.93	0.500	1	12/23/05
tert-Butylbenzene	BQL	0.500	1	12/23/05
Carbon tetrachloride	BQL	0.500	1	12/23/05
Chlorobenzene	BQL	0.500	1	12/23/05
Chloroethane	BQL	0.500	1	12/23/05
Chloroform	BQL	0.500	1	12/23/05
Chloromethane	BQL	0.500	1	12/23/05
2-Chlorotoluene	BQL	0.500	1	12/23/05
4-Chlorotoluene	BQL	0.500	1	12/23/05
Dibromochloromethane	BQL	0.500	1	12/23/05
1,2-Dibromo-3-chloropropane	BQL	0.500	1	12/23/05
1,2-Dibromoethane (EDB)	BQL	0.500	1	12/23/05
Dibromomethane	BQL	0.500	1	12/23/05
1,2-Dichlorobenzene	BQL	0.500	1	12/23/05
1,3-Dichlorobenzene	BQL	0.500	1	12/23/05
1,4-Dichlorobenzene	BQL	0.500	1	12/23/05
Dichlorodifluoromethane	BQL	0.500	1	12/23/05
1,1-Dichloroethane	BQL	0.500	1	12/23/05
1,2-Dichloroethane	BQL	0.500	1	12/23/05
1,1-Dichloroethene	BQL	0.500	1	12/23/05
cis-1,2-Dichloroethene	BQL	0.500	1	12/23/05
trans-1,2-Dichloroethene	BQL	0.500	1	12/23/05
1,2-Dichloropropane	BQL	0.500	1	12/23/05
2,2-Dichloropropane	BQL	0.500	1	12/23/05
cis-1,3-Dichloropropene	BQL	0.500	1	12/23/05
trans-1,3-Dichloropropene	BQL	0.500	1	12/23/05
Diisopropyl ether (DIPE)	BQL	0.500	1	12/23/05
Ethylbenzene	7.68	0.500	1	12/23/05
Hexachlorobutadiene	BQL	0.500	1	12/23/05
Isopropylbenzene	4.77	0.500	1	12/23/05
p-Isopropyltoluene	2.55	0.500	1	12/23/05
Methyl-tert butyl ether (MTBE)	BQL	0.500	1	12/23/05

Reviewed By: 
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PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles
by GC 6230D

Client Sample ID: SM-1-GW
Client Project ID: NCDOT-Coward
Lab Sample ID: G204-502-8A
Lab Project ID: G204-502

Analyzed By: MJC
Date Collected: 12/20/05 14:30
Date Received: 12/22/05
Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Methylene Chloride	BQL	5.00	1	12/23/05
Naphthalene	3.63	0.500	1	12/23/05
n-Propylbenzene	3.31	0.500	1	12/23/05
Styrene	BQL	1.00	1	12/23/05
1,1,1,2-Tetrachloroethane	BQL	0.500	1	12/23/05
1,1,2,2-Tetrachloroethane	BQL	0.500	1	12/23/05
Tetrachloroethene	BQL	0.500	1	12/23/05
Toluene	1.93	0.500	1	12/23/05
1,2,3-Trichlorobenzene	BQL	0.500	1	12/23/05
1,2,4-Trichlorobenzene	BQL	0.500	1	12/23/05
1,1,1-Trichloroethane	BQL	0.500	1	12/23/05
1,1,2-Trichloroethane	BQL	0.500	1	12/23/05
Trichloroethene	BQL	0.500	1	12/23/05
Trichlorofluoromethane	BQL	0.500	1	12/23/05
1,2,3-Trichloropropane	BQL	0.500	1	12/23/05
1,2,4-Trimethylbenzene	7.41	0.500	1	12/23/05
1,3,5-Trimethylbenzene	5.25	0.500	1	12/23/05
Vinyl Chloride	BQL	0.500	1	12/23/05
m/p-Xylene	18.5	1.00	1	12/23/05
o-Xylene	BQL	1.00	1	12/23/05

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	41.6	104
1,4-Dichlorobutane	40	41.9	105

Comments:

All values corrected for dilution.
BQL = Below quantitation limit.

Reviewed By: 
GC_LIMS_v2.0.XLS

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 625

Client Sample ID: SM-1-GW
Client Project ID: NCDOT-Coward
Lab Sample ID: G204-502-8E
Lab Project ID: G204-502

Analyzed By: MRC
Date Collected: 12/20/2005 14:30
Date Received: 12/22/2005
Date Extracted: 12/27/2005
Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	Dilution Factor	Date Analyzed
Acenaphthene	BQL	10.0	1	12/30/2005
Acenaphthylene	BQL	10.0	1	12/30/2005
Anthracene	BQL	10.0	1	12/30/2005
Benzo[a]anthracene	BQL	10.0	1	12/30/2005
Benzo[a]pyrene	BQL	10.0	1	12/30/2005
Benzo[b]fluoranthene	BQL	10.0	1	12/30/2005
Benzo[g,h,i]perylene	BQL	10.0	1	12/30/2005
Benzo[k]fluoranthene	BQL	10.0	1	12/30/2005
Bis(2-chloroethoxy)methane	BQL	10.0	1	12/30/2005
Bis(2-chloroethyl)ether	BQL	10.0	1	12/30/2005
Bis(2-chloroisopropyl)ether	BQL	10.0	1	12/30/2005
Bis(2-ethylhexyl)phthalate	BQL	10.0	1	12/30/2005
4-bromophenyl phenyl ether	BQL	10.0	1	12/30/2005
Butylbenzylphthalate	BQL	10.0	1	12/30/2005
2-Chloronaphthalene	BQL	10.0	1	12/30/2005
2-Chlorophenol	BQL	10.0	1	12/30/2005
4-Chloro-3-methylphenol	BQL	10.0	1	12/30/2005
4-Chlorophenyl phenyl ether	BQL	10.0	1	12/30/2005
Chrysene	BQL	10.0	1	12/30/2005
Dibenzo[a,h]anthracene	BQL	10.0	1	12/30/2005
Di-n-Butylphthalate	BQL	10.0	1	12/30/2005
1,2-Dichlorobenzene	BQL	10.0	1	12/30/2005
1,3-Dichlorobenzene	BQL	10.0	1	12/30/2005
1,4-Dichlorobenzene	BQL	10.0	1	12/30/2005
3,3'-Dichlorobenzidine	BQL	20.0	1	12/30/2005
2,4-Dichlorophenol	BQL	10.0	1	12/30/2005
Diethylphthalate	BQL	10.0	1	12/30/2005
Dimethylphthalate	BQL	10.0	1	12/30/2005
2,4-Dimethylphenol	BQL	10.0	1	12/30/2005
Di-n-octylphthalate	BQL	10.0	1	12/30/2005
4,6-Dinitro-2-methylphenol	BQL	50.0	1	12/30/2005
2,4-Dinitrophenol	BQL	50.0	1	12/30/2005
2,4-Dinitrotoluene	BQL	10.0	1	12/30/2005
2,6-Dinitrotoluene	BQL	10.0	1	12/30/2005
Diphenylamine *	BQL	10.0	1	12/30/2005
Fluoranthene	BQL	10.0	1	12/30/2005
Fluorene	BQL	10.0	1	12/30/2005
Hexachlorobenzene	BQL	10.0	1	12/30/2005
Hexachlorobutadiene	BQL	10.0	1	12/30/2005
Hexachlorocyclopentadiene	BQL	20.0	1	12/30/2005
Hexachloroethane	BQL	10.0	1	12/30/2005
Indeno(1,2,3-c,d)pyrene	BQL	10.0	1	12/30/2005

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 625

Client Sample ID: SM-1-GW
Client Project ID: NCDOT-Coward
Lab Sample ID: G204-502-8E
Lab Project ID: G204-502

Analyzed By: MRC
Date Collected: 12/20/2005 14:30
Date Received: 12/22/2005
Date Extracted: 12/27/2005
Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	Dilution Factor	Date Analyzed
Isophorone	BQL	10.0	1	12/30/2005
Naphthalene	BQL	10.0	1	12/30/2005
Nitrobenzene	BQL	10.0	1	12/30/2005
2-Nitrophenol	BQL	10.0	1	12/30/2005
4-Nitrophenol	BQL	50.0	1	12/30/2005
N-Nitrosodi-n-propylamine	BQL	10.0	1	12/30/2005
Pentachlorophenol	BQL	50.0	1	12/30/2005
Phenanthrene	BQL	10.0	1	12/30/2005
Phenol	BQL	10.0	1	12/30/2005
Pyrene	BQL	10.0	1	12/30/2005
1,2,4-Trichlorobenzene	BQL	10.0	1	12/30/2005
2,4,6-Trichlorophenol	BQL	10.0	1	12/30/2005

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8	80
2-Fluorophenol	10	7.5	75
Nitrobenzene-d5	10	7.6	76
Phenol-d6	10	7.5	75
2,4,6-Tribromophenol	10	7.6	76
4-Terphenyl-d14	10	10.9	109

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

List of Reporting Abbreviations
and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL = Reporting Limit

RPD = Relative Percent Difference

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

- 1) Metals and mercury samples are digested with a hot block, see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.

PARADIGM ANALYTICAL LABORATORIES, INC.
 5500 Business Drive, Wilmington, NC 28405
 Phone: (910)-350-1903 FAX: (910)-350-1557

Chain-of-Custody Record & Analytical Request

CO# 48875

Client: FAIRTEX TEST Project ID: NCCOR-CORNER Date: 12/20/05 Report To: MIKE BARNER
 Address: 701 Corporate Center Dr Contact: MIKE BARNER Turnaround: 5-7 BUSINESS DAYS FAIRTEX TEST
 Address: Suite 475 Phone: 919 854 6239 Job Number: 90389
 Quote #: PARADIGM 122601 Fax: 919 854 6259 P.O. Number: 485 # 34440-1.1 Invoice To: NEWT

Sample ID	Date	Time	Matrix	Preservatives		Analyses				Comments: Please specify any special reporting requirements	
SM-1	12/20/05	1308	SOIL			DRW	GRO	625			G204-502
SM-2		1310	SOIL								
SM-3		1320	SOIL								
SM-4		1330	SOIL								
SM-5		1340	SOIL								
SM-6		1400	SOIL								
SM-7		1415	SOIL								
SM-1-GAL	1/13/06	1015 AM									INVOICED UNDER BARNER AS

Requisitioned By: WHP Date: 12/15/05 Time: 1100 Received By: [Signature] Date: 12/20/05 Time: 1330 Temperature: 2-8°C SD 3.1°C State Certification Requested: NC SC Other

ORIGINAL