UST Closure Report

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

A UST Closure Report following the UST-12 format outlined below must be submitted to the appropriate regional office of the UST Section within thirty (30) days following completion of closure, **if the results of the UST closure investigation indicate that no soil contamination equal to or in exceedance of 10 mg/kg TPH, no groundwater contamination in exceedance of 2L, and no FREE PRODUCT are present.** (*If contamination in exceedance of these limits is present, then initial response and abatement actions, followed by an Initial Abatement Action Report (Appendix A, p. 62) which incorporates the information required by the UST Closure Report format, are required within 90 days of release discovery.)*

A. Site Information

1. Site Identification

- Date of Report:
- Facility I.D.: N/A UST Incident Number (if known): N/A
- Site Name: NCDOT Parcel 9 – K.J. Lewis Property
- Site Street Address: 2505 US Highway 1
- City/Town: Marston Zip Code: 28363 County: Richmond
- Description of Geographical Data Point (e.g., diesel fill port): Underground Storage Tank
- Location Method (GPS, topographical map, other): GPS
- Latitude (decimal degrees): 34.988 Longitude (decimal degrees) 79.582

2. Information about Contacts Associated with the Leaking UST System (Addresses must include street, city, state, zip code and mailing address, if different).

- UST Owner: Unknown
- Address: Tel Unknown:
- UST Operator: Unknown
- Address: Tel: Unknown
- Property Owner: NCDOT by Permanent Easement
- Address: 2505 US Highway 1 Tel: Unknown
- Property Occupant: None
- Address: Tel:
- Consultant/Contractor: Solutions-IES, Inc.,
- Address: 1101 Nowell Road, Raleigh, NC 27607 Tel: (919) 873-1060
- Analytical Laboratory: Prism Laboratories, Inc. State Certification No.37735
- Address: 449 Springbrook Road, Charlotte, NC 28224 Tel: (800) 529-6364

3. Information about Release

- Date Discovered: UST Closure
- Estimated Quantity of Release: Unknown
- Cause of Release: Unknown
- Source of Release (Dispenser/Piping/UST): Unknown
- Sizes and contents of UST system(s) from which the release occurred): 2-550 gallon gasoline; 2- 1,000 gallon gasoline; 1-250 gallon #2 fuel oil

Note:

Although impacts to soil associated with a release of petroleum fuels was later confirmed by laboratory results, they were not identified during the soil screening with a FID or apparent by field observations. Therefore, impacted soil was not removed during closure activities.

UNDERGROUND STORAGE TANK CLOSURE REPORT
NCDOT PARCEL 9, K. J. LEWIS PROPERTY
2505 US HIGHWAY 1
MARSTON, RICHMOND COUNTY
NORTH CAROLINA
WBS ELEMENT: 34438.1.1
NCDOT PROJECT: R-2502A

Prepared for:

NC Department of Transportation
Geotechnical Engineering Unit
GeoEnvironmental Section
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

Prepared by

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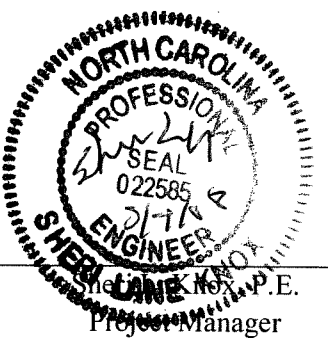
1101 Nowell Road
Raleigh, NC 27607
www.solutions-ies.com

Solutions-IES Project No. 6000.08A2.NDOT

April 30, 2008



Janet K. Macdonald, P.G.
Hydrogeologist

Sheri Lynn Knox, P.E.
Project Manager

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APPENDICES

Appendix A	UST-2 Form "Site Investigation Report for Permanent Closure or Change-In-Service of UST" UST-3 Form "Notice of Intent: UST Permanent Closure or Change-In-Service" UST-61 Form "24 Hour Release and UST Leak Reporting"
Appendix B	Site-Specific Health and Safety Plan
Appendix C	Tank Disposal Certificate
Appendix D	Laboratory Analytical Report and Chain-of-Custody Forms
Appendix E	Photographs

1.0 INTRODUCTION

The North Carolina Department of Transportation (NCDOT) is widening the existing alignment of US Highway 1 near the towns of Marston and Hoffman, located in Richmond County, North Carolina. Solutions-IES, Inc. (Solutions-IES) was retained by NCDOT to document closure of inactive underground storage tanks (USTs) at the K. J. Lewis property, NCDOT parcel 9 (Site), located at 2505 US Highway 1 in Marston, Richmond County, North Carolina (**Figure 1**). This scope of work was initiated based on a Notice to Proceed issued by the NCDOT Geotechnical Engineering Unit dated February 22, 2008 under contract 7000008011, dated May 31, 2007.The USTs were in the proposed right-of-way and had to be removed prior to road construction activities. This UST Closure Report (Report) documents the UST closure activities and has been prepared according to the July 2007 *Underground Storage Tank Section Guidelines For Site Checks, Tank Closure, and Initial Response and Abatement* (*Guidelines*) published by the UST Section, North Carolina Department of Environment and Natural Resources (NCDENR) Division of Waste Management. Tables and figures have been numbered in general accordance with the system outlined in the *Guidelines*.

2.0 SITE HISTORY AND CHARACTERIZATION

2.1 UST OWNER AND OPERATOR INFORMATION

Table B-2 provides known tank owner and operator information.

2.2 UST INFORMATION

A geophysical survey performed previously at the Site suggested the presence of two, or possibly three, metallic USTs located in close proximity to the abandoned building situated toward the front of the property facing US Highway 1. At least two of these USTs were likely located beneath the shoulder of US Highway 1 and extremely close to the building. The outline of a former pump island was observed in this area as well.

Five USTs were closed by removal from the site. **Table B-1** summarizes the available details of each UST and **Figure 2** shows their general location. All of the tanks were single-walled and constructed of steel. They were located at a depth of about 3 feet below ground surface (ft bgs). Four of the tanks contained gasoline. The capacity of Tank 2 and Tank 5 was 1,000 gallons with dimensions of approximately 4 ft by 11 ft. The other two gasoline tanks, Tank 1 and Tank 3, had a capacity of 550 gallons with dimensions of approximately 3.5 ft by 7.5 ft. There were no product lines associated with Tanks 1, 3 and 5. Tank 4 was a 250-gallon UST that stored #2 fuel oil. Its dimensions were 3.2 ft by 4 ft. Product lines extended from Tank 2 and Tank 4 to the former dispenser island.

2.3 NON-UST INFORMATION

No aboveground storage tanks or other potential petroleum release sources were identified at the Site.

2.4 RELEASE DESCRIPTION

According to the November 2007 Regional UST (RUST) database, no release has been reported at this Site. In addition, there was no visual evidence of petroleum impacts to surface soils at the Site during a (PSA)[1] conducted by Solutions-IES in August 2006. However, subsurface soil samples were not collected at that time due to the identified location of the USTs beneath the shoulder of existing US Highway 1. Considering the safety concerns of conducting work in the busy thoroughfare, the NCDOT elected to postpone the work.

Results of the closure activities conducted during March 2008 and documented in this Report revealed minor petroleum impacts from the USTs at this Site. Although no elevated volatile vapors were detected during field screening, soil samples collected during the PSA contained total petroleum hydrocarbon (TPH) diesel range organic (DRO) or TPH gasoline range organic (GRO) concentrations greater than the screening level of 10 mg/kg specified in the *Guidelines*. Analytical results are discussed in **Section 4.5**.

[1] Solutions-IES, Inc. "Preliminary Site Assessment, Parcel # 9, K. J. Lewis property, 2505 US Highway 1, Richmond County, North Carolina, WBS Element: 34438.1.1; NCDOT Project: R-2502A", September 28, 2006.

2.5 SITE CHARACTERISTICS

The surface of the Site was densely covered with thick vegetation and an abandoned building was located at the property during the PSA activities. The site has been cleared and the abandoned building demolished to provide access for UST closure activities. The foundation of the abandoned building and the former fuel dispenser island remained on the site (**Figure 2**). Photographs of the Site are presented in **Appendix E**. According to information provided in a Phase I Site Assessment[2] conducted by S&ME in 1999, the Site probably operated as a gas station and convenience store in the past.

A description of the surrounding property is as follows:

- North – rural residential
- South – rural residential
- East – Church property
- West – rural residential

2.6 HISTORICAL REGULATORY ACTIVITY SUMMARY

According to the NCDENR Registered UST (RUST) Database, there is no UST incident number associated with this Site and no record of historical releases. In August 2006, Solutions-IES conducted a PSA of Parcel 9. A geophysical survey conducted during this assessment indicated that two and possibly three USTs were located beneath the property. However, no subsurface investigation activities were initiated at that time due to the location of the USTs beneath the shoulder of US Highway 1.

3.0 SITE CHECK REPORT

A site check summarizes the operating condition of the USTs in question if they remain in service. The fuel USTs were closed by removal, therefore site check requirements are not applicable.

[2] S&ME, Inc. "Limited Phase I Environmental Site Assessment", February 5, 1999.

4.0 UST CLOSURE REPORT

4.1 PREPARATION FOR UST CLOSURE

On March 3, 2008, the NCDENR and the Fayetteville Regional Office were notified of UST closure activities by submitting a completed UST-3, "Notice of Intent: UST Permanent Closure or Change-in-Service" form (**Appendix A**). At that time, three USTs had been identified by geophysical methods. A site-specific Health and Safety Plan was prepared prior to the initiation of the field work and is included as **Appendix B**. Utilities were located by One-Call and KCI Associates of North Carolina prior to initiation of field activities. The soil and tank removal contractor, Soil Solutions, Inc. (SSI), obtained a permit from the County Fire Marshal prior to mobilizing to site.

4.2 CLOSURE PROCEDURES

SSI of Winston-Salem, NC, was contracted by Solutions-IES to remove the USTs. On March 12, 2008, Solutions-IES and SSI mobilized to the site to initiate excavation activities. The NCDOT maintenance department arrived onsite and set up traffic control and cut a portion of the asphalt to allow access to the UST located beneath the highway shoulder. The PSA geophysical survey had identified two or possibly three USTs beneath the property. However, five USTs were discovered during closure activities. All five USTs were eventually uncovered, and dry ice was used to purge the USTs of potentially explosive vapors. The Lower Explosive Limit (LEL) and oxygen content (O_2) were confirmed as suitable for each tank prior to its removal.

Prior to excavation, the concrete remnants of the former dispenser island were removed and two closure samples were collected from beneath the island. Each UST was uncovered and removed using a backhoe. The excavation extended into the roadway approximately 3 feet to facilitate the removal of Tanks 1 and 4. A hole was noted in Tank 2 which was the result of excavation activities. At least one soil closure sample was collected from beneath each UST, and one closure sample was collected from beneath each of the two product lines. A total of 13 soil samples were collected for laboratory analysis. **Figure 3** shows the closure sample locations.

All of the USTs appeared to be in good condition. Although rust was evident on the outside of the tanks, there were no holes, cracks, or pits observed. The tanks were cleaned and properly disposed of by SSI. The tank pits were then backfilled with fill provided by SSI from an off-site source and compacted to surface level. NCDOT maintenance personnel replaced the asphalt where the excavation extended into the roadway. Photographs of the USTs conditions and site restoration are provided in **Appendix E**. A Tanks Disposal Certificate for all tanks is provided in **Appendix C.** Note that the tank numbers identified on the disposal certificate do not correspond to tank number used in this report.

4.3 RESIDUAL MATERIAL REMOVED

All of the USTs were empty, so no residual material was removed.

4.4 INITIAL RESPONSE ACTIONS

The UST-2 form, "Site Investigation Report for Permanent Closure or Change-in-Service of UST" was submitted to the NCDENR Central Office as well as the Fayetteville Regional Office on March 28, 2008 and an amended UST-2 form was submitted on April 30, 2008 to correct tank identification numbers. Due to elevated concentrations identified from laboratory analysis of closure samples, a "24 Hour Release and UST Leak Reporting Form" (UST-61) was submitted to the Fayetteville Regional Office on April 17, 2008. These forms are included in **Appendix A**.

4.5 CLOSURE INVESTIGATION

4.5.1 Field Screening of Soils

Soils were screened in the field using a Photovac Microfid FID. The FID was calibrated at the start of the workday using 100-parts per million (ppm) methane calibration gas; the calibration of the instrument was re-checked periodically over the course of the day. Soil samples collected for field screening were placed in resealable plastic bags, and labeled with information identifying the sample name and/or location. Each sample was initially agitated to break up the soil. The bags were sealed and time was allowed for any volatile organic compounds (VOCs) trapped within the sample to volatilize into the headspace of the bag. After approximately 20 minutes, the probe of the FID was inserted into the headspace of the bag and the concentration of VOCs or volatile vapors present in the headspace was read in ppm on the FID display

and recorded in the field log book. Two of the 13 samples submitted for laboratory analysis had slightly measureable FID readings. The FID readings are summarized in **Table B-3A**.

4.5.2 Closure Soil Sampling

Closure soil samples were collected in accordance with Section 5.3 of the *Guidelines*. Based on the size of the tanks, up to two samples were collected from beneath each UST. Samples were collected from soil excavated from beneath either end of each tank pit using a backhoe bucket. A product line sample was collected directly below each of the two product lines and two soil samples were collected from beneath the dispenser island. Soil samples were collected as grab samples and screened with the FID as described in **Section 4.5.1**.

The closure samples were transferred to laboratory-supplied glassware. The containers were labeled with the sample location information, date, time of collection, requested analyses, and were placed on ice in an insulated cooler for delivery to Prism Laboratories, Inc. (Prism Labs) in Charlotte, NC. Samples were delivered under chain-of-custody procedures by laboratory courier on March 13, 2008.

4.5.3 Groundwater and Surface Water Samples

Groundwater was not encountered during tank closure activities and groundwater sampling was not included in this scope of work. No surface water features were identified at the Site.

4.5.4 Quality Control Measures

All non-disposable sampling equipment was decontaminated by rinsing with potable water, washing with a liquinox®/water solution and scrub brush, rinsing both with potable water then deionized water, and letting air dry. NCDOT does not routinely specify collection of additional field QC samples (*e.g.,* blind duplicate, matrix and matrix spike, equipment rinse, field, and trip blank) for tank closure activities. Samples submitted for laboratory analysis are collected using NCDENR-approved methods using new pre-preserved laboratory-supplied containers as required by the analytical method. The containers were labeled with the sample location information, including date, time of collection, and requested analyses. The filled containers were preserved on ice, and handled under chain-of-custody procedures. The samples were delivered to Prism Labs via same day courier for analysis. Prism Labs is approved by

North Carolina (NC Certification Number 402) for analyses required for UST closure and corrective action. Laboratory QC results are included with the analytical results in **Appendix D**.

4.5.5 Sample Results

All closure samples were analyzed for low boiling point fuels identified as TPH GRO with EPA Method 5030/Modified 8015 (California Method) and for high boiling point fuels identified as TPH DRO with EPA Method 3550/Modified 8015 (California Method). The laboratory analytical results for the soil samples are summarized in **Table B-3B**. Copies of the laboratory analytical reports and chain-of-custody forms are provided in **Appendix D**.

Even though the excavation activities did not reveal any visual evidence of soil staining and the FID readings did not indicate the presence of significant volatile vapors in any of the samples, 6 of the closure samples contained TPH DRO (with two occurrences of TPH GRO) at concentrations above their NCDENR screening level of 10 mg/kg.

The highest concentration detected was 680 mg/kg TPH DRO in the sample collected from beneath the west end of the dispenser (9-DISP-2). The sample collected from beneath the east end of the dispenser contained 11 mg/kg TPH DRO. A sample collected from beneath the west end of Tank 3 (9-T3-2) contained 110 mg/kg TPH DRO and 13 mg/kg TPH GRO, and the other sample collected from beneath the east end of this tank (9-T3-1) contained 55 mg/kg DRO. One sample collected beneath Tank 5 (9-T5-1) had a concentration of 17 mg/kg TPH DRO. No other samples contained concentrations of TPH above the regulatory screening limit.

5.0 FREE PRODUCT INVESTIGATION AND RECOVERY REPORT

Free product was not encountered during field activities.

6.0 GROUNDWATER AND SURFACE WATER INVESTIGATION

No groundwater or surface water samples were collected during closure of the USTs at the Site. Therefore, **Table B-4** “Summary of Groundwater and Surface Water Results” is not included in this report.

7.0 CONCLUSIONS

Five USTs located at the K. J. Lewis property, NCDOT Parcel 9, were closed by removal on March 12, 2008. Solutions-IES personnel collected closure samples from beneath two product lines, a former dispenser island, and the five USTs to determine whether a release had occurred from the UST system, and to document permanent closure of the USTs. No elevated volatile vapors were detected by an FID during field screening of the soil samples and no visual evidence of soil staining was noted. However, 6 of the 13 soil samples collected contained TPH DRO and/or TPH GRO concentrations greater than the NCDENR action level of 10 mg/kg. Therefore, additional assessment may be necessary, in accordance with the *Guidelines.*

TABLES

TABLE B-1
SITE HISTORY – UST SYSTEM INFORMATION
NCDOT Parcel 9 – KJ Lewis Property
2505 US Hwy 1, Marston, Richmond County, North Carolina
WBS Element: 34438.1.1; NCDOT Project: R-2502A
Solutions-IES Project No. 6000.08A2.NDOT

Incident Number and Name: NA

UST ID Number	Current/Last Contents *	Previous Contents *	Depth (ft bgs)	Capacity (in gallons)	Construction Details **	Tank Dimensions	Description of Associated Piping and Pumps	Date Tank Installed	Status of UST ***	Was release associated with the UST System?
1	Gasoline	Unknown	3’	550	Single walled steel tank	3.6’ x 7.25’	No Product Lines	Unknown	Permanently Closed 3/12/08	No
2	Gasoline	Unknown	3’	1,000	Single walled steel tank	4’ x 10.6’	Steel Piping	Unknown	Permanently Closed 3/12/08	No
3	Gasoline	Unknown	3’	550	Single walled steel tank	3.2’ x 7.9’	No Product Lines	Unknown	Permanently Closed 3/12/08	Yes
4	#2 Fuel Oil	Unknown	3’	250	Single walled steel tank	3.2’ x 4’	Steel Piping	Unknown	Permanently Closed 3/12/08	Yes
5	Gasoline	Unknown	3’	1,000	Single walled steel tank	3.8’ x 10.8’	No Product Lines	Unknown	Permanently Closed 3/12/08	No
Note: UST ID Numbers correspond to UST locations on Figure 3										

* Gasoline (unleaded or leaded), diesel, used oil, waste oil, aviation fuel, etc., or pesticides, non-halogenated or halogenated solvents, etc.
** Fiberglass (single- or double-walled), steel (single- or double-walled), steel with FRP (single- or double-walled), steel with liner, other, unknown.
*** Currently operational, not in use or temporarily closed (specify date), permanently closed in place (specify date), permanently closed by removal (specify date).

TABLE B-2
SITE HISTORY – UST OWNER AND OPERATOR INFORMATION
NCDOT Parcel 9 – KJ Lewis Property
2505 US Hwy 1, Marston, Richmond County, North Carolina
WBS Element: 34438.1.1; NCDOT Project: R-2502A
Solutions-IES Project No. 6000.08A2.NDOT

Incident Number and Name: NA

UST ID Number	**Unknown**	Facility ID Number	**Unknown**
Name of Owner		Dates of Operation	
NCDOT by Permanent Easement		**Unknown**	
Street Address			
2505 US Hwy 1			
City	State	Zip	Telephone Number
Marston	**NC**	**28363**	**Unknown**
Name of Operator		Dates of Operation (mm/dd/yy to mm/dd/yy)	
Unknown		**Unknown**	
Street Address			
2505 US Hwy 1			
City	State	Zip	Telephone Number
Marston	**NC**	**28363**	**Unknown**

TABLE B-3A
SUMMARY OF FIELD SCREEN RESULTS
NCDOT Parcel 9 – KJ Lewis Property
2505 US Hwy 1, Marston, Richmond County, North Carolina
WBS Element: 34438.1.1; NCDOT Project: R-2502A
Solutions-IES Project No. 6000.08A2.NDOT

Incident Number and Name: NA

Sample ID	Depth (ft bgs)	Location	Sample Type	FID Reading (ppm)
9-T1-1	6	Tank pit 1 – north end of tank	Soil	ND
9-T1-2	6	Tank pit 1 – south end of tank	Soil	ND
9-T2-1	6	Tank pit 2 – east end of tank	Soil	ND
9-T2-2	6	Tank pit 2 – west end of tank	Soil	2.1
9-T3-1	6	Tank pit 3 –east end of tank	Soil	ND
9-T3-2	6	Tank pit 3 – west end of tank	Soil	ND
9-T4-1	6	Tank pit 4 – center of tank	Soil	ND
9-T5-1	6	Tank pit 5 – west end of tank	Soil	ND
9-T5-2	6	Tank pit 5 – east end of tank	Soil	ND
9-PL-1	2	Product Line – west of tank 2	Soil	ND
9-PL-2	2	Product Line – north of tank 4	Soil	ND
9-DISP-1	1	Dispenser	Soil	ND
9-DISP-2	1	Dispenser	Soil	1.2

ND = Not Detected

TABLE B-3B
SUMMARY OF SOIL SAMPLING RESULTS
NCDOT Parcel 9 – KJ Lewis Property
2505 US Hwy 1, Marston, Richmond County, North Carolina
WBS Element: 34438.1.1; NCDOT Project: R-2502A
Solutions-IES Project No. 6000.08A2.NDOT

Incident Number and Name: NA

Sample Information					Total Petroleum Hydrocarbons	
Sample ID	**Date Collected**	**Location**	**Depth (ft bgs)**	**Incident Phase**	**Diesel Range (mg/kg)**	**Gasoline Range (mg/kg)**
9-T1-1	3/12/2008	Tank pit 1 – north end of tank	6	Closure	<7.3	<5.2
9-T1-2	3/12/2008	Tank pit 1 – south end of tank	6	Closure	<7.2	<5.2
9-T2-1	3/12/2008	Tank pit 2 – east end of tank	6	Closure	<7.5	**10**
9-T2-2	3/12/2008	Tank pit 2 – west end of tank	6	Closure	<7.4	<5.3
9-T3-1	3/12/2008	Tank pit 3 –east end of tank	6	Closure	**55**	**9.2**
9-T3-2	3/12/2008	Tank pit 3 – west end of tank	6	Closure	**110**	**13**
9-T4-1	3/12/2008	Tank pit 4 – center of tank	6	Closure	**10**	<5.3
9-T5-1	3/12/2008	Tank pit 5 – west end of tank	6	Closure	**17**	<5.5
9-T5-2	3/12/2008	Tank pit 5 – east end of tank	6	Closure	<7.2	<5.3
9-PL-1	3/12/2008	Product Line – west of tank 2	2	Closure	**9.1**	<5.4
9-PL-2	3/12/2008	Product Line – north of tank 4	2	Closure	**9.4**	<5.2
9-DISP-1	3/12/2008	Dispenser	1	Closure	**11**	<5.4
9-DISP-2	3/12/2008	Dispenser	1	Closure	**680**	<5.4

Notes:
Diesel Range analytical method = TPH Method 3550/8015MOD
Gasoline Range analytical method = TPH Method 5030/8015MOD
ft bgs = feet below ground surface
mg/kg - milligrams per kilogram
Shaded values exceed the regulatory limit of 10 mg/kg TPH
Bold text indicates analyte was detected above the laboratory reporting limit

TABLE B-5
PUBLIC AND PRIVATE WATER SUPPLY WELL AND OTHER RECEPTOR INFORMATION
NCDOT Parcel 9 – KJ Lewis Property
2505 US Hwy 1, Marston, Richmond County, North Carolina
WBS Element: 34438.1.1; NCDOT Project: R-2502A
Solutions-IES Project No. 6000.08A2.NDOT

Incident Number and Name: NA

(Include the following information. The well number (can use tax number), well owner and user names, addresses and telephone numbers, use of the well (potable, agricultural, etc.), well depth, type of well (i.e., drilled or bored), well casing depth, well screen interval and distance of well from the source area of the release)

Public and Private Water Supply Wells

Well #	Well Owner/ User (indicate which)	Address	Phone Number	Well Use	Well Depth (ft BGS)	Type of Well	Well Casing Depth (ft. BGS)	Well Screen Interval (x to y ft. BGS)	Distance from source area of release (ft.)	Up or downgradient
No private wells identified during this assessment										

ftt bgs = feet below ground surface

Other Receptors

(other public water supplies, reservoirs, water supply lines, surface water bodies, wellhead protection areas, recharge areas for deep aquifers, subsurface structures)

Receptor ID	Description	Location	Contact	Phone Number	Usage			Up or down-gradient	Distance from source area of release (ft.)

FIGURES

1:10,000

SITE LOCATION MAP
PARCEL 9
K.J. LEWIS PROPERTY
RICHMOND COUNTY, NORTH CAROLINA
STATE PROJECT NO. R-2502 A, WBS ELEMENT# 34438.1.1

Solutions-IES
Industrial & Environmental Services

1101 Nowell Road, Raleigh, NC 27609
Phone (919) 873-1060, Fax (919) 873-1074

Created by:	JD	Project:	6000.08A2.NDOT
Checked by:	SK	Date:	APRIL 2008
File:	Figure 1.mxd		
Software:	ESRI ArcMap 9.1	FIGURE	1

PROJECT NUMBER 6000.08A2.NDOT | DRAFTER JC | CHECKED BY JD | PROJECT MANAGER SK | DATE APRIL 2008 | FILE Figure2.dgn

PROPOSED RIGHT-OF-WAY

UST AREA

K. J. LEWIS
DB 340 PG 276
DB 381 PG 442

PEGGY BALDWIN
DB 923 PG 412
PB 2 PG 299

HILDA DOHAGN
DB 734 PG 333
DB 734 PG 336
PB 2 PG 299

HILERY MCKAY
DB 626 PG 255
PB 2 PG 299

MCKAY
PG 255
PG 299

CSX RAILWAY

BEAVERDAM TOWNSHIP
MARKS CREEK TOWNSHIP

EXISTING R/W
EXISTING RAILWAY R/W
EXISTING R/W
SR 1481 MERCER ST
TO ROCKINGHAM US 1 36' BST
MILEPOST 243
GUY
CSX RR

149.84' S55°23'30"W
167.21' N55°30'22"E
149.91' S55°21'46"W
119.95' N55°49'00"E
117.19' N34°11'00"W
25.24' N56°18'11"E
69.40' N34°55'49"W
70.49'
43.28' +44.02
25.00' +12.91
25.00' +60.04
12.69' N33°08'34"W
N34°09'45"W 56.66'
43.38' +16.18
43.42' +56.22
+01.77 42.50
278.27' +78.67
200'
10" PVC
6" PVC
48" CONC
36" CONC
36" WD RAIL
OUTHOUSE
ISFD
ISBK BUS
ISF BUS ABAND
ISBLK BUS
CONC
HTR
BST
ISL
AIL

-Y2- POT Sta. 12+67.70 = -L- POT Sta. 29+89.49
-Y3- POT Sta. 13+01.06 = -L- POT Sta. 25+50.79

0 50 100
SCALE IN FEET

Solutions-IES
Industrial & Environmental Services
1101 NOWELL ROAD
RALEIGH, NORTH CAROLINA 27607
TEL.: (919) 873-1060 FAX.: (919) 873-1074

NOTES:

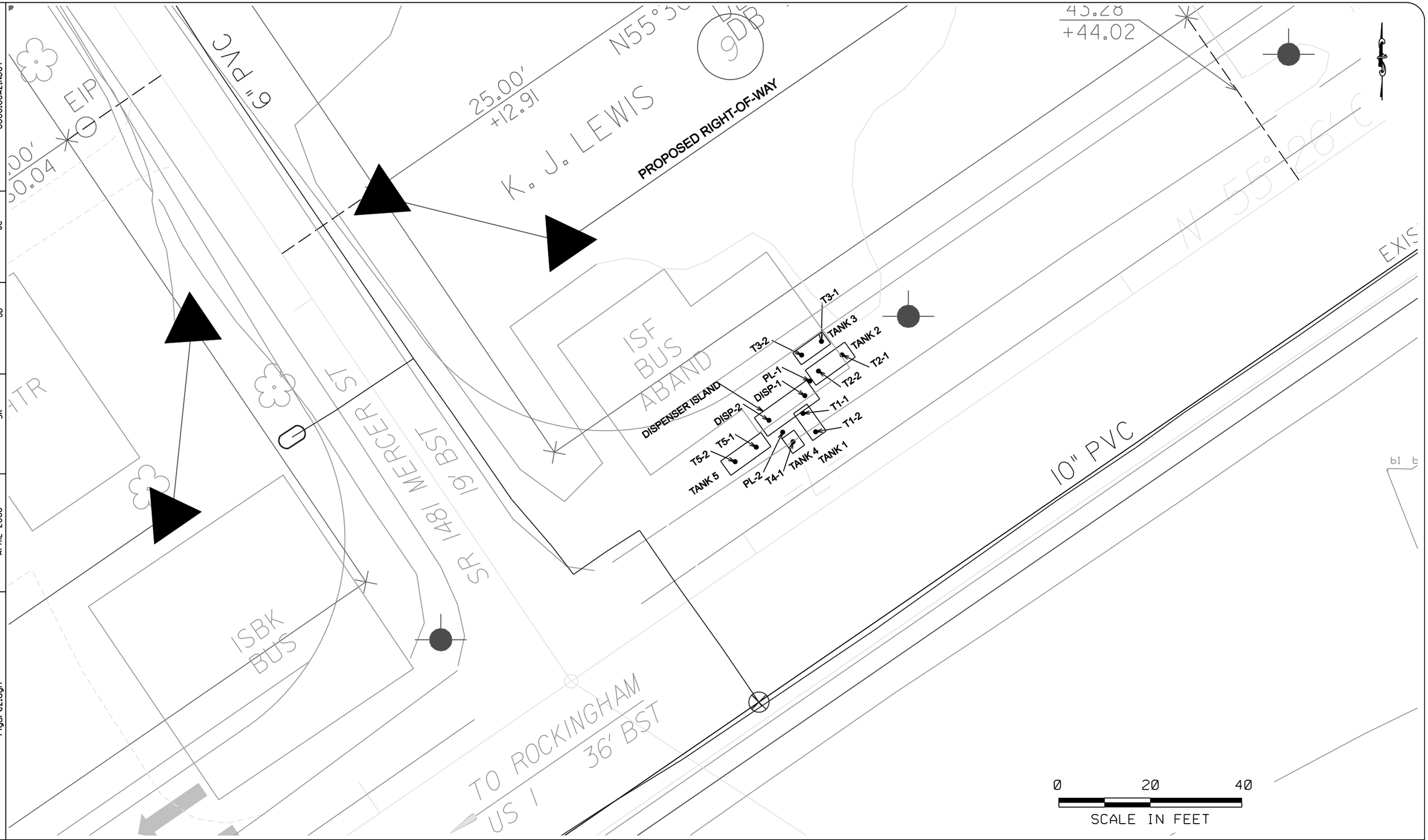
1. BASEMAP PROVIDED BY NCDOT
2. LOCATIONS ARE APPROXIMATE

NCDOT - PARCEL 9 - K.J. LEWIS PROPERTY
2505 US HIGHWAY 1
MARSTON, RICHMOND COUNTY, NORTH CAROLINA
WBS ELEMENT: 34438.1.1
STATE PROJECT: R-2502-A

SITE MAP

FIGURE: 2

PROJECT NUMBER 6000.08A2.NDOT | DRAFTER JC | CHECKED BY JD | PROJECT MANAGER SK | DATE APRIL 2008 | FILE Figure2.dgn



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MARSTON, RICHMOND COUNTY, NORTH CAROLINA
WBS ELEMENT: 34438.1.1
STATE PROJECT: R-2502-A

CLOSURE SAMPLE LOCATIONS

FIGURE: 3

APPENDIX A

UST-2: "SITE INVESTIGATION REPORT FOR PERMANENT CLOSURE OR CHANGE-IN SERVICE OF UST FORM"

UST-3: "NOTICE OF INTENT: UST PERMANENT CLOSURE OR CHANGE-IN-SERVICE"

UST-61: "24-HOUR RELEASE AND UST LEAK REPORTING FORM"

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

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

STATE USE ONLY:
I.D. #
Date Received

INSTRUCTIONS (READ THIS FIRST)

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

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

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

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

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

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

I. OWNERSHIP OF TANKS

Owner Name (Corporation, Individual, Public Agency, or Other Entity) NCDOT by Permanent Easement	
Street Address 2505 US Highway 1	
City Marston	County Richmond
State NC	Zip Code 28363
Phone Number none	

II. LOCATION OF TANKS

Facility Name or Company		
Facility ID # (If known)		
Street Address 2505 US Highway 1		
City Marston	County Richmond	Zip Code 28363
Phone Number none		

III. CONTACT PERSONNEL

Contact for Facility: Mr. Cyrus F. Parker, LG, PE NCDOT Geoenvironmental Unit		Job Title: Project Manager	Phone. No: 919-250-4088
Closure Contractor Name: Tony Disher	Closure Contractor Company: Soil Solutions, Inc..	Address: 1703 Vargrave St, Winston-Salem, NC	Phone. No: 336-725-5844
Primary Consultant Name: Jessica L. Dehart, P.G.	Primary Consultant Company: Solutions-IES, Inc.	Address: 1101 Nowell Rd., Raleigh, NC	Phone. No: 919-873-1060

IV. UST INFORMATION FOR REGISTERED UST SYSTEMS / V. EXCAVATION CONDITION

Tank ID No.	Size in Gallons	Tank Dimensions	Last Contents	Last Use Date	Permanent Close Date	Change-in-Service Date	Water in excavation Yes	Water in excavation No	Free product Yes	Free product No	Notable odor or visible soil contamination Yes	Notable odor or visible soil contamination No
5	1000	3.8' x 10.8'	Gasoline, Ga	unknown	03/12/08		☐	☒	☐	☒	☐	☒
2	1000	4' x 10.6'	Gasoline, Ga	unknown	03/12/08		☐	☒	☐	☒	☐	☒
3	550	3.2' x 8'	Gasoline, Ga	unknown	03/12/08		☐	☒	☐	☒	☐	☒
1	550	3.6' x 7.25'	Gasoline, Ga	unknown	03/12/08		☐	☒	☐	☒	☐	☒
4	250	3.2' x 4'	Fuel Oil	unknown	03/12/08		☐	☒	☐	☒	☐	☒

VI. UST INFORMATION FOR UNREGISTERED UST SYSTEMS / VII. EXCAVATION CONDITION

Tank ID No.	Size in Gallons	Tank Dimensions	Last Contents	Last Use Date	Permanent Close Date	Tank Owner Name *	Water in excavation Yes	Water in excavation No	Free product Yes	Free product No	Notable odor or visible soil contamination Yes	Notable odor or visible soil contamination No
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐

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

VIII. CERTIFICATION

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

Print name and official title of owner or owner's authorized representative	Signature	Date Signed
Jessica L. Dehart, P.G. Acting Agent for NCDOT	Jessica Dehart	4/30/08

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

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

STATE USE ONLY
I.D. #_____
Date Received_____

INSTRUCTIONS (READ THIS FIRST)

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

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

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

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

I. OWNERSHIP OF TANKS

Owner Name (Corporation, Individual, Public Agency, or Other Entity) NCDOT by Permanent Easement	
Street Address 2505 US Hwy-1	
City Marston	County Richmond
State NC	Zip Code 28363
Phone Number none	

II. LOCATION

Facility Name or Company KJ Lewis Property - Parcel #9		
Facility ID # (If known) Unknown		
Street Address 2505 US Hwy-1		
City Marston	County Richmond	Zip Code 28363
Phone Number none		

III. CONTACT PERSONNEL

Name:	Company Name:	Job Title:	Phone Number:
Cyrus F. Parker, LG, PE	NCDOT Geotechnical Unit	Project Manager	250-4088

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

1. Contact local fire marshal.
2. Plan entire closure event.
3. Conduct Site Soil Assessment.
4. If removing tanks or closing in place, refer to API Publication 2015 *Cleaning Petroleum Storage Tanks* and 1604 *Removal and Disposal of Used Underground Petroleum Storage Tanks.*
5. Provide a sketch locating piping, tanks and soil sampling locations.
6. Submit a closure report in the format of UST-12 (including the form UST-2) within thirty (30) days following the site investigation.
7. If a release from the tanks has occurred, the site assessment portion of the tank closure must be conducted under the supervision of a P.E. or L.G., with all closure site assessment reports bearing the signature and seal of the P.E. or L.G. If a release has not occurred, the supervision, signature or seal of a P.E. or L.G. is not required.
8. Keep closure records for three (3) years.

V. WORK TO BE PERFORMED BY

Contractor Name: Tony Disher	Contractor Company Name: Soil Solutions INC.		
Address: 1703 Vargave Street, Winston Salem	State: NC	Zip Code: 27107	Phone No: (336) 725-5844
Primary Consultant Name: Sheri Knox	Primary Consultant Company Name: Solutions-IES		Consultant Phone No: (919) 873-1060

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

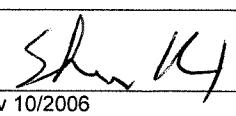
Tank ID No.	Size in Gallons	Last Contents	Proposed Activity: Closure – Removal	Proposed Activity: Closure – Abandonment in Place *	Proposed Activity: Change-In-Service – New Contents Stored
1	1000	Petroleum	☒	☐	
2	1000	Petroleum	☒	☐	
3	1000	Petroleum	☒	☐	
			☐	☐	
			☐	☐	

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

VII. OWNER OR OWNER'S AUTHORIZED REPRESENTATIVE

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

Print name and official title: Sheri Knox - Solutions-IES project manager and acting agent for NCDOT

Signature	Date Signed	SCHEDULED REMOVAL DATE	**Notify your DWM Regional Office 48 hours before this date if scheduled removal date changes**
	3/3/08	week of March 10, 2008	

UST-61 — 24-Hour Release and UST Leak Reporting Form.

For Releases in NC

This form should be completed and submitted to the UST Section's regional office following a known or suspected release from an underground storage tank (UST) system. This form is required to be submitted within 24 hours of discovery of a known or suspected release

(DWM USE ONLY)
Incident # _____ Risk (H,I,L,U)_____
Received On _____ Received By _____
Reported by (*circle one*): Phone, Fax or Report
Region _____

Suspected Contamination? (Y/N) Y
Confirmed GW Contamination? (Y/N) N
Confirmed Soil Contamination ?(Y/N) Y
Samples Taken?(Y/N) Y
Free Product? (Y/N) N If Yes, State Greatest Thickness NA

Facility ID Number NA
Date Leak Discovered 4/15/08
Comm/Non-Commercial? _____
Reg/Non-regulated? Regulated

INCIDENT DESCRIPTION

Incident Name: NCDOT Parcel 9 – K J Lewis Property

Address: 2505 US 1 County: Richmond

City/Town: Marston Zip Code: 28363

Regional Office (*circle one*): Asheville, Mooresville, (Fayetteville), Raleigh, Washington, Wilmington, Winston-Salem

Latitude (decimal degrees): 34.98829 Longitude (decimal degrees) : 79.58166

Obtained by:
- ☒ GPS
- ☐ Topographic map
- ☐ GIS Address matching
- ☐ Other
- ☐ Unknown

Describe location:

Briefly describe suspected or confirmed release: *(including but not limited to: nature of release, date of release, amount of release, amount of free product present and recovery efforts, initial responses conducted, impacts to receptors)*

Five USTs were closed by removal on 3/12/08. Laboratory analytical data indicated GRO and DRO concentrations in soil above regulatory screening levels. The type and date of release are unknown. No receptors were identified. SOIL IMPACTS WERE IDENTIFIED BELOW TWO TANKS & THE FORMER DISPENSER ISLAND.

HOW RELEASE WAS DISCOVERED (Release Code)

(Check one)

- ☐ Release Detection Equipment or Methods
- ☒ During UST Closure/Removal
- ☐ Property Transfer
- ☒ Visual/Odor
- ☐ Water in Tank
- ☐ Water Supply Well Contamination
- ☐ Groundwater Contamination
- ☐ Surface Water Contamination
- ☐ Other (specify) _____

SOURCE OF CONTAMINATION

Source of Release *(Check one to indicate primary source)*
- ☒ Tank
- ☐ Piping
- ☐ Dispenser
- ☐ Submersible Turbine Pump
- ☐ Delivery Problem
- ☐ Other
- ☐ Unknown

Definitions presented on reverse

Cause of Release *(Check one to indicate primary cause)*
- ☐ Spill
- ☐ Overfill
- ☐ Corrosion
- ☐ Physical or Mechanical Damage
- ☐ Install Problem
- ☐ Other
- ☒ Unknown

Definitions presented on reverse

Type of Release *(Check one)*
- ☒ Petroleum
- ☐ Non-Petroleum
- ☐ Both

Location *(Check one)*
- ☐ Facility
- ☐ Residence
- ☒ Other

Product Type Released *(Check one to indicate primary product type released)*
- ☒ Gasoline/ Diesel/ Kerosene
- ☐ Heating Oil
- ☐ Other Petroleum Products
- ☐ Metals
- ☐ Other Inorganics
- ☐ Other Organics
- ☐ Diesel/Veg. Oil Blend
- ☐ Vegetable Oil 100%
- ☐ E10 – E20
- ☐ E21 – E84
- ☐ E85 – E99
- ☐ Ethanol 100%
- ☐ E01 – E09

Ownership
1. Municipal 2. Military 3. Unknown 4. Private 5. Federal 6. County (7. State)

Operation Type
1. Public Service 2. Agricultural 3. Residential 4. Education/Relig. 5. Industrial 6. Commercial 7. Mining

IMPACT ON DRINKING WATER SUPPLIES

Water Supply Wells Affected? 1. Yes (2. No) 3. Unknown

Number of Water Supply Wells Affected _____

Water Supply Wells Contaminated: (*Include Users Names, Addresses and Phone Numbers. Attach additional sheet if necessary*)

1.
2.
3.

UST SYSTEM OWNER

UST Owner/Company			
NCDOT by permanent easement			
Point of Contact		**Address**	
Cyrus F. Parker (NCDOT Geoenvironmental Unit)		Beryl Road	
City	**State**	**Zip Code**	**Telephone Number**
Raleigh	NC	27607	919-250-4088

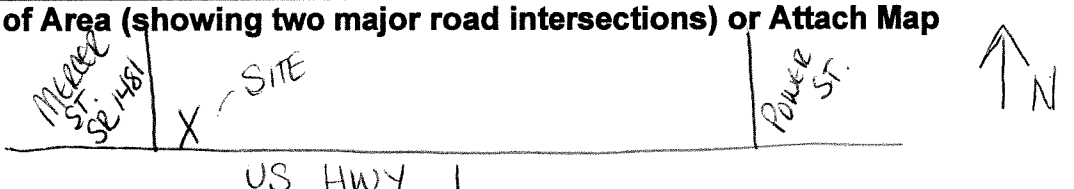
UST SYSTEM OPERATOR

UST Operator/Company		Address	
Unknown			
City	**State**	**Zip Code**	**Telephone Number**

LANDOWNER AT LOCATION OF UST INCIDENT

Landowner		Address	
NCDOT by permanent easement			
City	**State**	**Zip Code**	**Telephone Number**

Draw Sketch of Area (showing two major road intersections) or Attach Map



Person Reporting Incident Jessica Dehart	Company Solutions-IES, Inc.	Telephone Number
Title Acting Agent for NCDOT	Address 1101 Nowell Rd. Raleigh, NC	Date 04/17/08

Definitions of Sources

Tank: means the tank that stores the product and is part of the underground storage tank system

Piping: means the piping and connectors running from the tank or submersible turbine pump to the dispenser or other end-use equipment (Vent, vapor recovery, or fill lines are excluded.)

Dispenser: includes the dispenser and the equipment used to connect the dispenser to the piping (e.g., a release from a suction pump or from components located above the shear valve)

Submersible Turbine Pump (STP) Area includes the submersible turbine pump head (typically located in the tank sump), the line leak detector, and the piping that connects the submersible turbine pump to the tank

Delivery Problem: identifies releases that occurred during product delivery to the tank. (Typical causes associated with this source are spills and overfills.)

Other: serves as the option to use when the release source is known but does not fit into one of the preceding categories (e.g., for releases from vent lines, vapor recovery lines, and fill lines)

Unknown: identifies releases for which the source has not been determined

Definitions of Causes

Spill: use this cause when a spill occurs (e.g., when the delivery hose is disconnected from the tank fill pipe or when the nozzle is removed from the dispenser)

Overfill: use when an overfill occurs (e.g., overfills may occur from the fill pipe at the tank or when the nozzle fails to shut off at the dispenser)

Physical or Mechanical Damage: use for all types of physical or mechanical damage, except corrosion (e.g., puncture of tank or piping, loose fittings, broken components, and components that have changed dimension)

Corrosion: use when a metal tank, piping, or other component has a release due to corrosion (e.g., for steel, corrosion takes the form of rust)

Installation Problem: use when the problem is determined to have occurred specifically because the UST system was not installed properly

Other: use this option when the cause is known but does not fit into one of the preceding categories (e.g., putting regulated substances into monitoring wells)

Unknown: use when the cause has not been determined

APPENDIX B

SITE-SPECIFIC HEALTH AND SAFETY PLAN

HEALTH AND SAFETY PLAN

PRELIMINARY SITE ASSESSMENTS

PARCELS: (R-2502-A&B) 009, 021, 048, 050, 061, and 068

Along US-1 South of SR1001 to North of the Richmond County Line

NCDOT TIP: R-2502 A & B
NCDOT WBS Element: 34438.1.1
RICHMOND / MOORE COUNTY
NORTH CAROLINA

Prepared for:

NCDOT Geotechnical Unit
1589 Mail Service Center
Raleigh, NC 27699-1589

Prepared by:

Solutions-IES, Inc.
1101 Nowell Road
Raleigh, NC 27607

Solutions-IES Project No. 6000.07A3.NDOT

February 2008

HEALTH AND SAFETY PLAN
PRELIMINARY SITE ASSESSMENT

LOCATION OF SITE:	6 Parcels from South of SR 1001 to North of the Richmond County Line, North Carolina
SOLUTIONS-IES JOB NO.:	6000.07A3.NDOT
CLIENT:	Mr. Cyrus F. Parker, LG , PE (NCDOT Geotechnical Unit)

REVIEWED BY

Corporate Health & Safety Officer	Walter J. Beckwith, P.G.
Project Manager	Sheri Knox, P.E.

DATE OF PLAN PREPARATION

February 27, 2008

DATES OF PLANNED FIELD ACTIVITIES:

March 10, 2008 to March 21

EMERGENCY CONTACT INFORMATION:

Hospital: **First Health Richmond Memorial Hospital**
925 South Long Drive
Rockingham, NC 28379 **(910) 417-3665**

Distance from Site: **Approximately 15.7 miles**

Travel Time: 24 minutes

Directions:

Start: Going West on US-1/Main Street towards Bracy St.
Turn LEFT on South Long Drive / NC-1646
End: 925 South Long Drive, Rockingham, NC 28379-4835

Source: www.mapquest.com

(See Figure 1 for Hospital Route)

EMS/FIRE/POLICE: 911

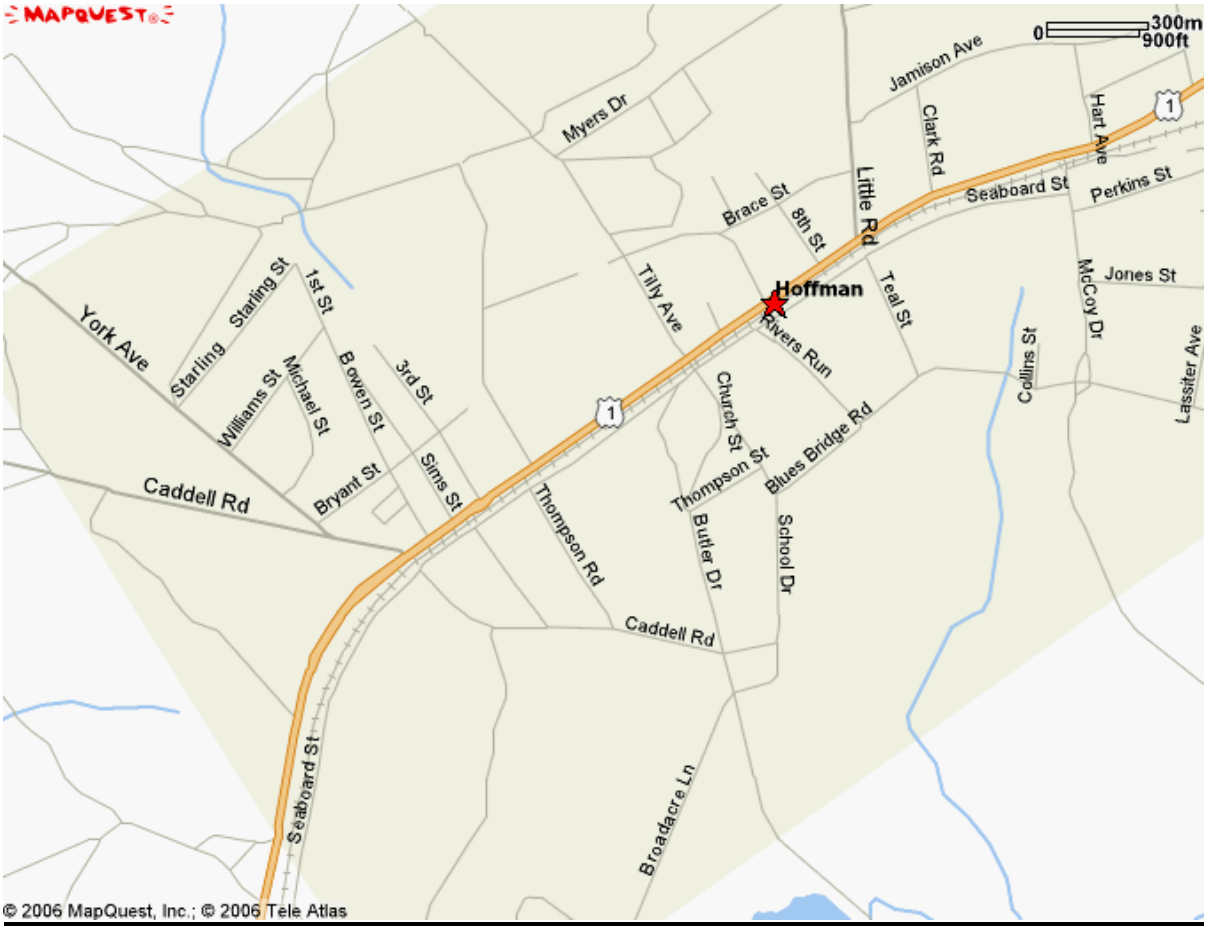
SOLUTIONS-IES HEALTH AND SAFETY OFFICER:

Walt Beckwith, Office (919) 873-1060; Mobile (919) 345-1310

CLIENT CONTACT: Mr. Cyrus F. Parker, LG, PE
Office (919) 250-4088

FIGURE 1
ROUTE TO HOSPITAL

FIGURE 2
LOCAL MAP



DAILY SIGN IN LOG:

Solutions-IES is not liable for any Health & Safety issues involving non-Solutions-IES employees. Contractors, sub-contractors and government employees are responsible for providing and following their own Health & Safety Plans and adhering to their own company policies.

The undersigned Solutions-IES employees have read and understood this site-specific health and safety plan:

Name	Signature	Date	Attended Today's Site Specific H&S Meeting?(Y/N)
Jessica Dehart	J. Dehart	3/10/08	Y
Jessica Dehart	J. Dehart	3/11/08	Y
Jessica Dehart	J. Dehart	3/12/08	Y
Jessica Dehart	J. Dehart	3/13/08	Y
Jessica Dehart	J. Dehart	3/14/08	Y
Jessica Dehart	J. Dehart	3/18/08	Y
Jessica Dehart	J. Dehart	3/19/08	Y
Jessica Dehart	J. Dehart	3/20/08	Y
Jessica Dehart	J. Dehart	3/21/08	Y
Tim Parks	T. Parks	~~3/23/08~~ 3124-08	Y
Tim Parks	T. Parks	3/25/08	Y

SITE-SPECIFIC HEALTH AND SAFETY PLAN

TANK PULL'S AND SOIL EXCAVATION / REMOVAL

PARCELS: (R-2502-A&B) 009, 021, 048, 050, 061, and 068

A. Site History and Description

NCDOT TIP: R-2502 A & B
Richmond County, NC

A Limited PSAs was performed at the six parcels referenced in the Request for Technical and Cost Proposal dated July 10, 2006. NCDOT provided a brief description of the six parcels including some background information and a Limited Phase I Site Assessment report prepared by S&ME, Inc. Work is to be performed in Right of Way and/or Easement only.

State Project: R-2502A

Parcel 009, K.J. Lewis Property - 2505 US Hwy 1 (north side of hwy 1 and east of Mercer St.) Richmond County NC. This parcel is located on the north side of US 1 just east of Mercer Street. Three USTs were noted on the property in the existing right of way. Heavy vegetation, overhead electric lines exist on the site. It probably operated as a gas station in the past. Pump island remains were observed.
We did not collect any samples as access at this site is difficult.

Scope: Remove USTs contents and piping; excavate and dispose of contaminated soils.

Parcel 021, James Brigman Property - 2589 US Hwy 1 near the towns of Marston and Hoffman. It previously operated as gas station, smoke shop and body-piercing establishment. No evidence of UST system observed. 11 soil borings showed low concentrations detected in headspace analysis and no detects of TPH DRO/GRO above lab limits

Scope: Remove USTs contents and piping; excavate and dispose of contaminated soils.

Parcel 048, Roy Barry Bostick Property - 3569 US Hwy 1 Richmond County, NC near Marston and Hoffman. Previously, buildings housed a towing company which performed vehicle maintenance and race car assembly. There is possibly one small UST southwest corner of building. There is no evidence of UST system. 10 soil borings showed low levels of volatile vapors in headspace and chromium and lead detected above reporting limits in all 10 samples. DRO was above lab reporting limits in 6 of 10.

Scope: Remove USTs, contents and piping; excavate and dispose of contaminated soils. This parcel is located on the north side of US 1 and 300 feet west of Tilley Street.

Parcel 050, Pansy Earnest Property -3585 US Hwy 1 near Marston and Hoffman Richmond Co., near Hwy 1 and Tilley St in Hoffman. There is a cinder block building on site, and several utilities including overhead. GPR showed 2 potential USTs near southwestern corner of bldg. No evidence of UST system noted. Nine soil borings showed low concentration of volatiles in headspace and DRO levels between 5.4-6.6 mg/kg .

Scope: Remove USTs, contents and piping; excavate and dispose of contaminated soils.

Parcel 061, Cooper & Brown Incorporated Property - 3702 Us Hwy 1. There is a cinder block building on site, along with dense brush and trees. Utilities were noted overhead. Geophysical found no evidence of USTs. There are elevated DRO and GRO in soils that are stockpiled on site.

Scope: Load and dispose of 50 yd^3 stockpiled on-site.

Parcel 068 (R-2502B), James Pugh Property - US Hwy 1 Richmond County, near Marston and Hoffman. Located on the north side of US 1 ~500 ft west of Special Forces Way. The site is covered with dense brush and trees. A former pump island noted suggesting gas station operated in the past. GPR did not suggest a UST, but maybe a cistern or well 140 ft west of pump island. Nineteen soil borings had volatile vapors in headspace screening, and elevated GRO and DRO levels.

Scope: Excavate and dispose of contaminated soils down to an elevation of 278 feet or until no contamination is detected.

.

A. Site Classification: (i.e. plant, landfill, etc.)

The sites are either abandoned commercial businesses that were previously used as commercial fueling stations or cleared lots. Parcel 068 is a local resident with an open well head that presents a fall hazard. .

B. Activities performed prior to investigation: (i.e. groundwater sampling, tank removal, spill, fire, etc.)

The property owner of Parcel 061 reportedly closed eight UST's. Phase 1 ESA was completed that encompasses the properties. Solutions-IES completed an PSA of the properties in August of 2006.

C. Unusual Features: (i.e. lakes, streams, utilities, dikes, drum storage, etc.)

Properties are adjacent to the highways, and a opened well head on parcel 68

D. Waste Classification: _✓_Solid _✓_Liquid ___ Gas ___ Sludge

E. Waste Characterization: ___ Toxic ___ Corrosive ___ Radioactive

___ Flammable ✓ Volatile ___ Reactive

___ Other (Specify)_____

F.

Substance(s)	Quantity	Action Level (PEL/TWA)
Gasoline	unknown_	_ 5ppm_
Kerosene/Diesel	unknown_	_100ppm
Diesel Fuel	unknown	_10ppm
Heating Oil	unknown_	_100ppm
Waste Oil_	unknown	Not Established

G. Physical Hazards: ✓ Heat __Cold __✓__ Noise ___ Radiation

_✓Other (Specify) Vehicular traffic, and slips, trips, and falls

H. Weather:

Tank removal activities will be performed in March. Temperatures may range anywhere from lows in the 30's to highs in the low 60's. Weather forecasts should be reviewed prior to mobilization, and prior to start of work daily. If heavy rain is predicted, it is recommended not to leave uncovered UST's in the ground. Heavy rain may cause them to float.

B. Site Organization and Control

A. Work area identified as:

PARCELS 009, 021, 048, 050, 061, and 068. The work areas will be identified in the field and will be marked with traffic cones, flags and caution tape if necessary.

B. Decontamination area identified as:

Area adjacent to Solutions-IES work vehicle.

C. Support area identified as:

Solutions-IES work vehicle

D. Site security maintained by:

All of the sites are unsecured. Traffic cones, flagging or barricade tape will be used to segregate the work area from casual entry by onlookers. Be particularly careful on sites that are active and open to the public. Prevent any slip/trip or fall hazards. Recognize potential hazards posed to the public as well as Solutions-IES workers.

C. Job Activities and Work Plans

A. Type of Activity: Soil Sampling, Soil Excavation and Tank Removals

1. Soil sampling out of back-hoe bucket or hand auger

Comments:
Solutions-IES Employee will make direct eye contact with back-hoe operator before approaching bucket to obtain sample, and will only approach bucket when it is at rest.

B. Work Plan Description:

The following describes the activities to be performed at the site. UST's will be removed by Soil Solutions, and contaminated soils will be excavated to the extent written in the proposal. Additional soil may be removed after verbal confirmation from the project manager. Solutions-IES will screen soils and perform closure and confirmation sampling. The samples will be shipped on under Chain-of-Custody control to Pace Analytical Laboratories for analysis. Soil samples collected will be analyzed for total petroleum hydrocarbons. Contaminated soil will be removed from the sites by Soil Solutions and disposed of according to regulations.

D. Levels of Protection

Job Activity	Personal Protective Equipment (PPE)	Level
1. Soil sampling	Steel toe boots, nitrile gloves, safety glasses, ear plugs, and DOT safety vest. Hard hat will be worn while working around Geo-Probe.	**D**

V. Ambient Field Monitoring

A. Equipment required:

Flame ionization detector (FID)

B. Monitoring Protocol:

Position yourself upwind of the purging/sampling operation if possible. If odors are detected monitor the breathing zone with a flame ionization detector (FID). Monitor the breathing zone frequently. If readings approach 5 ppm over background, cease activities. Move upwind from the suspected source and let levels stabilize. Return to work when levels are less than 5 ppm. If levels do not decrease, stop activities and call Solutions-IES Health and Safety officer.

VI. Safety Equipment List

A. First-Aid kit ✓ Yes ___ No Location: Solutions-IES truck

B. Fire Extinguisher: ✓ Yes ___ No Location: Solutions-IES truck
Verify condition prior to mobilization

C. Communication: ___Buddy ___ Radio ___ Hand Signals ✓ Cell Phone

D. Personal Protective Equipment List: Level D
__ Tyvek
__ Chemical Resistant Suit
__ Fully Encapsulated Suit
✓ Steel Toed Boots
✓ Orange Work Vest
✓ Hard Hat
✓ Safety Glasses
_ Ear Plugs (**See Attached Hearing Protection Protocol**)
__ Gloves, inner (specify)_____
✓ Gloves, outer (specify) Nitrile, work gloves_____
__ Respirator, Type: ___ Half-face ___ Full-face ___ SCBA
__ Respirator Cartridge Type:_____

E. Other Specialized Equipment:
✓ Water Cooler
✓ Cell Phone
✓ Traffic Cones
✓ Traffic Signs (When Necessary)
✓ API UST Closure Guidelines
✓ NCDENR UST Section Tank Closure Guidelines
✓ Other(specify) roll of plastic sheeting

VII. Decontamination Equipment

✓ Pressure Washer (Geoprobe) ___ Solvent Rinse
___ Steam Ginny (Drill Rig) ___ Other (specify)_____
✓ Water
✓ Liquinox™
✓ 5-Gallon Carboy of Deionized Water

VIII. Decontamination Procedures

Activity: Soil sampling

Procedure: All non-disposable sampling equipment will be rinsed with potable water, washed with a Liquinox™/water mixture, and then rinsed with DI water and allowed to air dry.

IX. Sanitation:

Restrooms/Hand Washing:
Locate suitable facilities before beginning work.

Shower:
Not Available

Comments:
Hose on Geo-Probe can be used for hand washing.

X. Education, Training and Medical Surveillance

A. Special Training Beyond OSHA 40-Hour Requirement?

✓ No
___Yes (specify) _____

B. Special Medical Monitoring beyond standard OSHA program required?

✓ No
___ Yes (specify) _____

APPENDIX I
MSDS FORMS

Unknown concentrations of the contaminants listed below may be detected in the soil and groundwater at the parcels to be assessed.

1. Gasoline
2. Diesel
3. Kerosene
4. Heating Oil
5. Waste Oil

APPENDIX II
ACCIDENT, ENVIRONMENTAL RELEASE, PROPERTY DAMAGE OR NEAR MISS FORM

Appendix IV

Hearing Protection Protocol

APPENDIX C

TANKS DISPOSAL CERTIFICATE

SOIL SOLUTIONS

TANKS DISPOSAL CERTIFICATE

Tank Owner: NCDOT (Parcel 9)

Site Address: 2505 US-1
Marston, NC

Description of Tanks:

Tank Number	Size of Tank	Contents
1	1,000 Gallons	Gasoline
2	1,000 Gallons	Gasoline
3	550 Gallons	Gasoline
4	550 Gallons	Gasoline
5	250 Gallons	#2 Fuel Oil

Transporter: Soil Solutions, Inc.

SSI Project #: 030806

Disposal Certification:

Soil Solutions, Inc. does hereby certify that the above named storage tanks were transported to Atlantic Scrap and Processing in Winston-Salem, NC for proper disposal and recycling.

Signature

Thomas W. Hammett
Vice President
Soil Solutions, Inc.

1703 Vargrave Street Winston-Salem, NC 27107
(336) 725-5844 FAX (336) 725-6244

APPENDIX D

LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY FORM

PRISM
LABORATORIES,INC.

Case Narrative

Date: 03/31/08
Company: N. C. Department of Transportation
Contact: Jessica Dehart
Address: c/o Solution - IES
1101 Nowell Road
Raleigh, NC 27607

Client Project ID: NCDOT Parcel 9
Prism COC Group No: G0308522
Collection Date(s): 03/12/08
Lab Submittal Date(s): 03/14/08

Client Project Name Or No: Richmond Co. WBS# 34438.1.1

This data package contains the analytical results for the project identified above and includes a Case Narrative, Laboratory Report and Quality Control Data totaling 16 pages. A chain-of-custody is also attached for the samples submitted to Prism for this project.

Data qualifiers are flagged individually on each sample. A key reference for the data qualifiers appears at the end of this case narrative. Quality control statements and/or sample specific remarks are included in the sample comments section of the laboratory report for each sample affected.

Semi Volatile Analysis

No Anomalies Reported

Volatile Analysis

Analysis Note for Q31009 MS Gasoline Range Organics (GRO): Recovery above the control limits.

Analysis Note for Q31009 MSD Gasoline Range Organics (GRO): Recovery above the control limits.

Metals Analysis

N/A

Wet Lab and Micro Analysis

N/A

Please call if you have any questions relating to this analytical report.

Date Reviewed by: Robbi A. Jones
Signature: Robbi A. Jones
Review Date: 03/31/08

Project Manager: Angela D. Overcash
Signature:
Approval Date: 03/31/08

Data Qualifiers Key Reference:

B: Compound also detected in the method blank.
#: Result outside of the QC limits.
DO: Compound diluted out.
E: Estimated concentration, calibration range exceeded.
J: The analyte was positively identified but the value is estimated below the reporting limit.
H: Estimated concentration with a high bias.
L: Estimated concentration with a low bias.
M: A matrix effect is present.

PRISM LABORATORIES, INC.
Full Service Analytical & Environmental Solutions

NC Certification No. 402
SC Certification No. 99012
NC Drinking Water Cert. No. 37735

Laboratory Report

03/31/08

N. C. Department of Transportation
Attn: Jessica Dehart
c/o Solution - IES
1101 Nowell Road
Raleigh, NC 27607

Project Name: Richmond Co.
Project ID: NCDOT Parcel 9
Project No.: WBS# 34438.1.1
Sample Matrix: Soil

Client Sample ID: 9-DISP-1
Prism Sample ID: 208722
COC Group: G0308522
Time Collected: 03/12/08 9:30
Time Submitted: 03/14/08 8:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	**92.0**	%			1	SM2540 G	03/19/08 14:45	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	**11**	mg/kg	7.6	1.8	1	8015B	03/25/08 23:32	jvogel	Q31232
Sample Preparation:			50.19 g	/	2 mL	3550B	03/21/08 9:30	jvogel	P21147

Surrogate	% Recovery	Control Limits
o-Terphenyl	107	48 - 130

Sample Weight Determination									
Weight 1	**5.23**	g			1	GRO	03/17/08 0:00	lbrown	
Weight 2	**3.77**	g			1	GRO	03/17/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	**BRL**	mg/kg	5.4	3.4	50	8015B	03/18/08 15:42	wbradley	Q31009

Surrogate	% Recovery	Control Limits
aaa-TFT	84	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services

449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543

Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409

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Laboratory Report

03/31/08

N. C. Department of Transportation
Attn: Jessica Dehart
c/o Solution - IES
1101 Nowell Road
Raleigh, NC 27607

Project Name: Richmond Co.
Project ID: NCDOT Parcel 9
Project No.: WBS# 34438.1.1
Sample Matrix: Soil

Client Sample ID: 9-DISP-2
Prism Sample ID: 208723
COC Group: G0308522
Time Collected: 03/12/08 9:35
Time Submitted: 03/14/08 8:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	**92.1**	%			1	SM2540 G	03/19/08 14:45	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	**680**	mg/kg	38	9.2	5	8015B	03/26/08 6:52	jvogel	Q31232
Sample Preparation:			50.27 g	/	2 mL	3550B	03/21/08 9:30	jvogel	P21147

Surrogate	% Recovery	Control Limits
o-Terphenyl	DO #	48 - 130

Sample Weight Determination									
Weight 1	**2.12**	g			1	GRO	03/17/08 0:00	lbrown	
Weight 2	**2.45**	g			1	GRO	03/17/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	**BRL**	mg/kg	5.4	3.4	50	8015B	03/18/08 22:14	wbradley	Q31009

Surrogate	% Recovery	Control Limits
aaa-TFT	84	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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Laboratory Report

03/31/08

N. C. Department of Transportation
Attn: Jessica Dehart
c/o Solution - IES
1101 Nowell Road
Raleigh, NC 27607

Project Name: Richmond Co.
Project ID: NCDOT Parcel 9
Project No.: WBS# 34438.1.1
Sample Matrix: Soil

Client Sample ID: 9-PL-1
Prism Sample ID: 208724
COC Group: G0308522
Time Collected: 03/12/08 9:45
Time Submitted: 03/14/08 8:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	**91.9**	%			1	SM2540 G	03/19/08 14:45	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	**9.1**	mg/kg	7.6	1.2	1	8015B	03/27/08 20:49	jvogel	Q31308
Sample Preparation:			25.07 g	/	1 mL	3545	03/25/08 14:00	Wconder	P21156

Surrogate	% Recovery	Control Limits
o-Terphenyl	114	49 - 124

Sample Weight Determination									
Weight 1	**5.44**	g			1	GRO	03/17/08 0:00	lbrown	
Weight 2	**5.21**	g			1	GRO	03/17/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	**BRL**	mg/kg	5.4	3.4	50	8015B	03/18/08 16:26	wbradley	Q31009

Surrogate	% Recovery	Control Limits
aaa-TFT	85	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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Laboratory Report

03/31/08

N. C. Department of Transportation
Attn: Jessica Dehart
c/o Solution - IES
1101 Nowell Road
Raleigh, NC 27607

Project Name: Richmond Co.
Project ID: NCDOT Parcel 9
Project No.: WBS# 34438.1.1
Sample Matrix: Soil

Client Sample ID: 9-PL-2
Prism Sample ID: 208725
COC Group: G0308522
Time Collected: 03/12/08 10:10
Time Submitted: 03/14/08 8:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	**95.7**	%			1	SM2540 G	03/19/08 14:45	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	**9.4**	mg/kg	7.3	1.2	1	8015B	03/27/08 21:26	jvogel	Q31308
Sample Preparation:			25.13 g	/	1 mL	3545	03/25/08 14:00	Wconder	P21156

Surrogate	% Recovery	Control Limits
o-Terphenyl	118	49 - 124

Sample Weight Determination									
Weight 1	**3.50**	g			1	GRO	03/17/08 0:00	lbrown	
Weight 2	**3.09**	g			1	GRO	03/17/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	**BRL**	mg/kg	5.2	3.3	50	8015B	03/18/08 16:58	wbradley	Q31009

One surrogate recovery was outside of the control limits. Low preservative volume is suspected.

Surrogate	% Recovery	Control Limits
aaa-TFT	196 #	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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03/31/08

N. C. Department of Transportation
Attn: Jessica Dehart
c/o Solution - IES
1101 Nowell Road
Raleigh, NC 27607

Project Name: Richmond Co.
Project ID: NCDOT Parcel 9
Project No.: WBS# 34438.1.1
Sample Matrix: Soil

Client Sample ID: 9-T4-1
Prism Sample ID: 208726
COC Group: G0308522
Time Collected: 03/12/08 10:45
Time Submitted: 03/14/08 8:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	**95.1**	%			1	SM2540 G	03/19/08 14:45	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	**10**	mg/kg	7.3	1.2	1	8015B	03/27/08 22:03	jvogel	Q31308
Sample Preparation:			25.3 g	/	1 mL	3545	03/25/08 14:00	Wconder	P21156

Surrogate	% Recovery	Control Limits
o-Terphenyl	123	49 - 124

Sample Weight Determination									
Weight 1	**5.82**	g			1	GRO	03/17/08 0:00	lbrown	
Weight 2	**5.10**	g			1	GRO	03/17/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	**BRL**	mg/kg	5.3	3.3	50	8015B	03/18/08 17:30	wbradley	Q31009

Surrogate	% Recovery	Control Limits
aaa-TFT	89	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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03/31/08

N. C. Department of Transportation
Attn: Jessica Dehart
c/o Solution - IES
1101 Nowell Road
Raleigh, NC 27607

Project Name: Richmond Co.
Project ID: NCDOT Parcel 9
Project No.: WBS# 34438.1.1
Sample Matrix: Soil

Client Sample ID: 9-T3-1
Prism Sample ID: 208727
COC Group: G0308522
Time Collected: 03/12/08 11:05
Time Submitted: 03/14/08 8:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	**94.0**	%			1	SM2540 G	03/19/08 14:45	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	**55**	mg/kg	7.3	1.2	1	8015B	03/27/08 22:41	jvogel	Q31308
Sample Preparation:			25.36 g	/	1 mL	3545	03/25/08 14:00	Wconder	P21156

Surrogate	% Recovery	Control Limits
o-Terphenyl	116	49 - 124

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Sample Weight Determination									
Weight 1	**6.49**	g			1	GRO	03/17/08 0:00	lbrown	
Weight 2	**5.72**	g			1	GRO	03/17/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	**9.2**	mg/kg	5.3	3.3	50	8015B	03/18/08 18:01	wbradley	Q31009

Surrogate	% Recovery	Control Limits
aaa-TFT	82	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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Laboratory Report

03/31/08

N. C. Department of Transportation
Attn: Jessica Dehart
c/o Solution - IES
1101 Nowell Road
Raleigh, NC 27607

Project Name: Richmond Co.
Project ID: NCDOT Parcel 9
Project No.: WBS# 34438.1.1
Sample Matrix: Soil

Client Sample ID: 9-T3-2
Prism Sample ID: 208728
COC Group: G0308522
Time Collected: 03/12/08 11:10
Time Submitted: 03/14/08 8:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	**93.1**	%			1	SM2540 G	03/19/08 14:45	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	**110**	mg/kg	7.5	1.2	1	8015B	03/27/08 23:18	jvogel	Q31308
Sample Preparation:			25.12 g	/	1 mL	3545	03/25/08 14:00	Wconder	P21156

Surrogate	% Recovery	Control Limits
o-Terphenyl	109	49 - 124

Sample Weight Determination									
Weight 1	**4.00**	g			1	GRO	03/17/08 0:00	lbrown	
Weight 2	**2.29**	g			1	GRO	03/17/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	**13**	mg/kg	5.4	3.4	50	8015B	03/20/08 11:34	wbradley	Q31009

Surrogate recovery was outside of the control limits. The analysis was repeated for this sample. Surrogate recovery remained above the control limits . Matrix interference is suspected.

Surrogate	% Recovery	Control Limits
aaa-TFT	134 #	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis

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Laboratory Report

03/31/08

N. C. Department of Transportation
Attn: Jessica Dehart
c/o Solution - IES
1101 Nowell Road
Raleigh, NC 27607

Project Name: Richmond Co.
Project ID: NCDOT Parcel 9
Project No.: WBS# 34438.1.1
Sample Matrix: Soil

Client Sample ID: 9-T2-1
Prism Sample ID: 208729
COC Group: G0308522
Time Collected: 03/12/08 11:15
Time Submitted: 03/14/08 8:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	**93.1**	%			1	SM2540 G	03/19/08 14:45	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	**BRL**	mg/kg	7.5	1.2	1	8015B	03/27/08 23:56	jvogel	Q31308
Sample Preparation:			25.05 g	/	1 mL	3545	03/25/08 14:00	Wconder	P21156

Surrogate	% Recovery	Control Limits
o-Terphenyl	106	49 - 124

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Sample Weight Determination									
Weight 1	**4.83**	g			1	GRO	03/17/08 0:00	lbrown	
Weight 2	**5.68**	g			1	GRO	03/17/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	**10**	mg/kg	5.4	3.4	50	8015B	03/18/08 19:04	wbradley	Q31009

Surrogate	% Recovery	Control Limits
aaa-TFT	115	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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Laboratory Report

03/31/08

N. C. Department of Transportation
Attn: Jessica Dehart
c/o Solution - IES
1101 Nowell Road
Raleigh, NC 27607

Project Name: Richmond Co.
Project ID: NCDOT Parcel 9
Project No.: WBS# 34438.1.1
Sample Matrix: Soil

Client Sample ID: 9-T2-2
Prism Sample ID: 208730
COC Group: G0308522
Time Collected: 03/12/08 11:20
Time Submitted: 03/14/08 8:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	**94.2**	%			1	SM2540 G	03/19/08 14:45	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	**BRL**	mg/kg	7.4	1.2	1	8015B	03/28/08 0:33	jvogel	Q31308
Sample Preparation:			25.06 g	/	1 mL	3545	03/25/08 14:00	Wconder	P21156

Surrogate	% Recovery	Control Limits
o-Terphenyl	107	49 - 124

Sample Weight Determination									
Weight 1	**5.95**	g			1	GRO	03/17/08 0:00	lbrown	
Weight 2	**5.71**	g			1	GRO	03/17/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	**BRL**	mg/kg	5.3	3.3	50	8015B	03/18/08 19:35	wbradley	Q31009

Surrogate	% Recovery	Control Limits
aaa-TFT	80	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services

449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543

Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409

PRISM LABORATORIES, INC.
Full Service Analytical & Environmental Solutions

NC Certification No. 402
SC Certification No. 99012
NC Drinking Water Cert. No. 37735

Laboratory Report

03/31/08

N. C. Department of Transportation
Attn: Jessica Dehart
c/o Solution - IES
1101 Nowell Road
Raleigh, NC 27607

Project Name: Richmond Co.
Project ID: NCDOT Parcel 9
Project No.: WBS# 34438.1.1
Sample Matrix: Soil

Client Sample ID: 9-T5-1
Prism Sample ID: 208731
COC Group: G0308522
Time Collected: 03/12/08 11:30
Time Submitted: 03/14/08 8:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	**91.5**	%			1	SM2540 G	03/19/08 14:45	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	**17**	mg/kg	7.6	1.2	1	8015B	03/28/08 1:11	jvogel	Q31308
Sample Preparation:			25.33 g	/	1 mL	3545	03/25/08 14:00	Wconder	P21156

Surrogate	% Recovery	Control Limits
o-Terphenyl	112	49 - 124

Sample Weight Determination									
Weight 1	**5.57**	g			1	GRO	03/17/08 0:00	lbrown	
Weight 2	**5.64**	g			1	GRO	03/17/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	**BRL**	mg/kg	5.5	3.4	50	8015B	03/18/08 20:07	wbradley	Q31009

Surrogate	% Recovery	Control Limits
aaa-TFT	87	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services

449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543

Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409

PRISM LABORATORIES, INC.
Full Service Analytical & Environmental Solutions

NC Certification No. 402
SC Certification No. 99012
NC Drinking Water Cert. No. 37735

Laboratory Report

03/31/08

N. C. Department of Transportation
Attn: Jessica Dehart
c/o Solution - IES
1101 Nowell Road
Raleigh, NC 27607

Project Name: Richmond Co.
Project ID: NCDOT Parcel 9
Project No.: WBS# 34438.1.1
Sample Matrix: Soil

Client Sample ID: 9-T5-2
Prism Sample ID: 208732
COC Group: G0308522
Time Collected: 03/12/08 11:35
Time Submitted: 03/14/08 8:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	**95.0**	%			1	SM2540 G	03/19/08 14:45	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	**BRL**	mg/kg	7.2	1.2	1	8015B	03/28/08 2:25	jvogel	Q31308
Sample Preparation:			25.53 g	/	1 mL	3545	03/25/08 14:00	Wconder	P21156

Surrogate	% Recovery	Control Limits
o-Terphenyl	113	49 - 124

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Sample Weight Determination									
Weight 1	**5.54**	g			1	GRO	03/17/08 0:00	lbrown	
Weight 2	**5.69**	g			1	GRO	03/17/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	**BRL**	mg/kg	5.3	3.3	50	8015B	03/18/08 20:39	wbradley	Q31009

Surrogate	% Recovery	Control Limits
aaa-TFT	84	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services

449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543

Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409

PRISM LABORATORIES, INC.
Full Service Analytical & Environmental Solutions

NC Certification No. 402
SC Certification No. 99012
NC Drinking Water Cert. No. 37735

Laboratory Report

03/31/08

N. C. Department of Transportation
Attn: Jessica Dehart
c/o Solution - IES
1101 Nowell Road
Raleigh, NC 27607

Project Name: Richmond Co.
Project ID: NCDOT Parcel 9
Project No.: WBS# 34438.1.1
Sample Matrix: Soil

Client Sample ID: 9-T1-1
Prism Sample ID: 208733
COC Group: G0308522
Time Collected: 03/12/08 11:45
Time Submitted: 03/14/08 8:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	**95.9**	%			1	SM2540 G	03/19/08 14:45	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	**BRL**	mg/kg	7.3	1.2	1	8015B	03/28/08 3:03	jvogel	Q31308
Sample Preparation:			25.12 g	/	1 mL	3545	03/25/08 14:00	Wconder	P21156

Surrogate	% Recovery	Control Limits
o-Terphenyl	83	49 - 124

Sample Weight Determination									
Weight 1	**5.50**	g			1	GRO	03/17/08 0:00	lbrown	
Weight 2	**5.47**	g			1	GRO	03/17/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	**BRL**	mg/kg	5.2	3.3	50	8015B	03/18/08 21:10	wbradley	Q31009

Surrogate	% Recovery	Control Limits
aaa-TFT	81	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services

449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543

Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409

PRISM LABORATORIES, INC.
Full Service Analytical & Environmental Solutions

NC Certification No. 402
SC Certification No. 99012
NC Drinking Water Cert. No. 37735

Laboratory Report

03/31/08

N. C. Department of Transportation
Attn: Jessica Dehart
c/o Solution - IES
1101 Nowell Road
Raleigh, NC 27607

Project Name: Richmond Co.
Project ID: NCDOT Parcel 9
Project No.: WBS# 34438.1.1
Sample Matrix: Soil

Client Sample ID: 9-T1-2
Prism Sample ID: 208734
COC Group: G0308522
Time Collected: 03/12/08 11:50
Time Submitted: 03/14/08 8:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	**95.8**	%			1	SM2540 G	03/19/08 14:45	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	**BRL**	mg/kg	7.2	1.2	1	8015B	03/28/08 3:40	jvogel	Q31308
Sample Preparation:			25.53 g	/	1 mL	3545	03/25/08 14:00	Wconder	P21156

Surrogate	% Recovery	Control Limits
o-Terphenyl	81	49 - 124

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Sample Weight Determination									
Weight 1	**5.07**	g			1	GRO	03/17/08 0:00	lbrown	
Weight 2	**5.36**	g			1	GRO	03/17/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	**BRL**	mg/kg	5.2	3.3	50	8015B	03/18/08 21:42	wbradley	Q31009

Surrogate	% Recovery	Control Limits
aaa-TFT	95	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services

449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543

Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409

PRISM LABORATORIES, INC.
Full Service Analytical & Environmental Solutions

NC Certification No. 402
SC Certification No. 99012
NC Drinking Water Cert. No. 37735

Level II QC Report

3/31/2008

N. C. Department of Transportation
Attn: Jessica Dehart
c/o Solution - IES
1101 Nowell Road
Raleigh, NC 27607

Project Name: Richmond Co.
Project ID: NCDOT Parcel 9
Project No.: WBS# 34438.1.1

COC Group Number: G0308522
Date/Time Submitted: 3/14/200 8:00

Gasoline Range Organics (GRO) by GC-FID, method 8015B

Method Blank

	Result	RL	Control Limit	Units	QC Batch ID
Gasoline Range Organics (GRO)	ND	5	<2.5	mg/kg	Q31009

Laboratory Control Sample

	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	QC Batch ID
Gasoline Range Organics (GRO)	41.2	50	mg/kg	82	67-116	Q31009

Matrix Spike

Sample ID:		Result	Spike Amount	Units	Recovery %	Recovery Ranges %	QC Batch ID
208479	Gasoline Range Organics (GRO)	58.9	50	mg/kg	118 #	57-113	Q31009

Matrix Spike Duplicate

Sample ID:		Result	Spike Amount	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
208479	Gasoline Range Organics (GRO)	58.2	50	mg/kg	116 #	57-113	1	0 - 23	Q31009

Diesel Range Organics (DRO) by GC-FID, method 8015B

Method Blank

	Result	RL	Control Limit	Units	QC Batch ID
Diesel Range Organics (DRO)	ND	7	<3.5	mg/kg	Q31232

Laboratory Control Sample

	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	QC Batch ID
Diesel Range Organics (DRO)	34.0	40	mg/kg	85	53-118	Q31232

Matrix Spike

Sample ID:		Result	Spike Amount	Units	Recovery %	Recovery Ranges %	QC Batch ID
209028	Diesel Range Organics (DRO)	56.9	40	mg/kg	96	52-119	Q31232

Matrix Spike Duplicate

Sample ID:		Result	Spike Amount	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
209028	Diesel Range Organics (DRO)	59.4	40	mg/kg	102	52-119	4	0 - 25	Q31232

449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543
Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409

PRISM LABORATORIES, INC.
Full Service Analytical & Environmental Solutions

NC Certification No. 402
SC Certification No. 99012
NC Drinking Water Cert. No. 37735

Level II QC Report

3/31/2008

N. C. Department of Transportation
Attn: Jessica Dehart
c/o Solution - IES
1101 Nowell Road
Raleigh, NC 27607

Project Name: Richmond Co.
Project ID: NCDOT Parcel 9
Project No.: WBS# 34438.1.1

COC Group Number: G0308522
Date/Time Submitted: 3/14/200 8:00

Diesel Range Organics (DRO) by GC-FID, method 8015B

Method Blank	Result	RL	Control Limit	Units					QC Batch ID
Diesel Range Organics (DRO)	ND	7	<3.5	mg/kg					Q31308

Laboratory Control Sample	Result	Spike Amount	Units	Recovery %	Recovery Ranges %			QC Batch ID
Diesel Range Organics (DRO)	66.7	80	mg/kg	83	55-109			Q31308

Matrix Spike Sample ID:	Result	Spike Amount	Units	Recovery %	Recovery Ranges %			QC Batch ID
208724 Diesel Range Organics (DRO)	91.3	80	mg/kg	104	50-117			Q31308

Matrix Spike Duplicate Sample ID:	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
208724 Diesel Range Organics (DRO)	79.9	80	mg/kg	89	50-117	13	0 - 24	Q31308

#-See Case Narrative

449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543
Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409

Parcel 9

CHAIN OF CUSTODY RECORD

PRISM LABORATORIES, INC.

Full Service Analytical & Environmental Solutions

449 Springbrook Road • P.O. Box 240543 • Charlotte, NC 28224-0543
Phone: 704/529-6364 • Fax: 704/525-0409

PAGE 1 OF 2 QUOTE # TO ENSURE PROPER BILLING: _____

Client Company Name: SOLUTIONS - IES
Report To/Contact Name: JESSICA DEHART
Reporting Address: 1101 NOWELL ROAD
RALEIGH NC 27607
Phone: 919-873-1000 Fax (Yes) (No): 919-873-1074
Email (Yes) (No) Email Address: jdehart@solutions-ies.com
EDD Type: PDF____ Excel____ Other_____
Site Location Name: RICHMOND COUNTY UST
Site Location Physical Address: HWY 1 RICHMOND COUNTY

Project Name: RICHMOND COUNTY UST
Short Hold Analysis: (Yes) (No) UST Project: (Yes) (No)
*Please ATTACH any project specific reporting (QC LEVEL I II III IV) provisions and/or QC Requirements
Invoice To: ~~SAME~~ NCDOT GEOENVIRONMENTAL UNIT
Address: _____

Purchase Order No./Billing Reference WBS # 34438.1.1
Requested Due Date ❑ 1 Day ❑ 2 Days ❑ 3 Days ❑ 4 Days ❑ 5 Days
"Working Days" ❑ 6-9 Days ❑ Standard 10 days ❑ Rush Work Must Be Pre-Approved
Samples received after 15:00 will be processed next business day.
Turnaround time is based on business days, excluding weekends and holidays.
(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

LAB USE ONLY

	YES	NO	N/A
Samples INTACT upon arrival?	✓		
Received ON WET ICE? Temp 1.2	✓		
PROPER PRESERVATIVES indicated?	✓		
Received WITHIN HOLDING TIMES?	✓		
CUSTODY SEALS INTACT?			✓
VOLATILES rec'd W/OUT HEADSPACE?			✓
PROPER CONTAINERS used?	✓		

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL

Certification: NELAC____ USACE____ FL____ NC X
SC____ OTHER____ N/A____
Water Chlorinated: YES____ NO____
Sample Iced Upon Collection: YES X NO____

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER *TYPE SEE BELOW	SAMPLE CONTAINER NO.	SAMPLE CONTAINER SIZE	PRESERVATIVES	ANALYSES REQUESTED TPH GRO	ANALYSES REQUESTED TPH DRO	REMARKS	PRISM LAB ID NO.
9-DISP-1	3/12/08	9:30	SOIL	G/VOA	1/2		NONE/METHANOL	X	X		208722
9-DISP-2		9:35						X	X		208723
9-PL-1		9:45						X	X		208724
9-PL-2		10:10						X	X		208725
9-T4-1		10:45						X	X		208726
9-T3-1		11:05						X	X		208727
9-T3-2		11:10						X	X		208728
9-T2-1		11:15						X	X		208729
9-T2-2		11:20						X	X		208730
9-T5-1		11:30						X	X		208731

PRESS DOWN FIRMLY - 3 COPIES

Sampler's Signature: Jessica Dehart Sampled By (Print Name): JESSICA DEHART Affiliation: SOLUTIONS - IES

Upon relinquishing, this Chain of Custody is your authorization for Prism to proceed with the analyses as requested above. Any changes must be submitted in writing to the Prism Project Manager. There will be charges for any changes after analyses have been initialized.

		Date	Military/Hours
Relinquished By: (Signature) Jessica Dehart	Received By: (Signature)	3/13/08	1500
Relinquished By: (Signature)	Received By: (Signature)	Date	
Relinquished By: (Signature)	Received For Prism Laboratories By:	Date 3/14/08	800

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.

❑ Fed Ex ❑ UPS ❑ Hand-delivered ☒ Prism Field Service ❑ Other _____

COC Group No. G070522

Additional Comments:

PRISM USE ONLY

Site Arrival Time:
Site Departure Time:
Field Tech Fee:
Mileage:

NPDES:	UST:	GROUNDWATER:	DRINKING WATER:	SOLID WASTE:	RCRA:	CERCLA	LANDFILL	OTHER:
❑ NC ❑ SC	☒ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC
❑ _____	❑ _____	❑ _____	❑ _____	❑ _____	❑ _____	❑ _____	❑ _____	❑ _____

*CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

SEE REVERSE FOR TERMS & CONDITIONS

ORIGINAL

CHAIN OF CUSTODY RECORD

PRISM LABORATORIES, INC.

Full Service Analytical & Environmental Solutions

449 Springbrook Road • P.O. Box 240543 • Charlotte, NC 28224-0543
Phone: 704/529-6364 • Fax: 704/525-0409

PAGE 2 OF 2 QUOTE # TO ENSURE PROPER BILLING: _____

Project Name: RICHMOND COUNTY UST
Short Hold Analysis: (Yes) (No) UST Project: (Yes) (No)
*Please ATTACH any project specific reporting (QC LEVEL I II III IV) provisions and/or QC Requirements
Invoice To: NCDOT GEOENVIRONMENTAL UNIT
Address: RALEIGH, NC

Client Company Name: SOLUTIONS-IES
Report To/Contact Name: JESSICA DEHART
Reporting Address: 1101 NOWELL RD
RALEIGH, NC 27607
Phone: 919-873-1600 Fax (Yes) (No): _____
Email (Yes) (No) Email Address _____
EDD Type: PDF___ Excel___ Other___
Site Location Name: RICHMOND COUNTY UST
Site Location Physical Address: HWY 1
RICHMOND COUNTY

Purchase Order No./Billing Reference WBS# 34438.1.1
Requested Due Date ☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 4 Days ☐ 5 Days
"Working Days" ☐ 6-9 Days ☑ Standard 10 days ☐ Rush Work Must Be Pre-Approved
Samples received after 15:00 will be processed next business day.
Turnaround time is based on business days, excluding weekends and holidays.
(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

LAB USE ONLY

	YES	NO	N/A
Samples INTACT upon arrival?	✓		
Received ON WET ICE? Temp 1.0	✓		
PROPER PRESERVATIVES indicated?	✓		
Received WITHIN HOLDING TIMES?	✓		
CUSTODY SEALS INTACT?			✓
VOLATILES rec'd W/OUT HEADSPACE?			✓
PROPER CONTAINERS used?	✓		

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL

Certification: NELAC____ USACE____ FL____ NC X
SC____ OTHER____ N/A____
Water Chlorinated: YES___ NO___
Sample Iced Upon Collection: YES X NO___

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER *TYPE SEE BELOW	SAMPLE CONTAINER NO.	SAMPLE CONTAINER SIZE	PRESERVATIVES	ANALYSES REQUESTED						REMARKS	PRISM LAB ID NO.
								TPH GRO	TPH DRO						
9-T5-2	3/12/08	11:35	SOIL	G/VOA	1/2		NONE/METHANOL	X	X						203732
9-T1-1	↓	11:45	↓	↓	↓		↓	X	X						203733
9-T1-2	↓	11:50	↓	↓	↓		↓	X	X						203734

PRESS DOWN FIRMLY - 3 COPIES

Sampler's Signature Jessica Dehart Sampled By (Print Name) JESSICA DEHART Affiliation SOLUTIONS-IES

Upon relinquishing, this Chain of Custody is your authorization for Prism to proceed with the analyses as requested above. Any changes must be submitted in writing to the Prism Project Manager. There will be charges for any changes after analyses have been initialized.

Relinquished By: (Signature) Jessica Dehart	Received By: (Signature)	Date 3/13/08	Military/Hours 1500
Relinquished By: (Signature)	Received By: (Signature)	Date	
Relinquished By: (Signature)	Received For Prism Laboratories By:	Date 3/14/08	800

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.

☐ Fed Ex ☐ UPS ☐ Hand-delivered ☒ Prism Field Service ☐ Other _____

COC Group No. G0308522

Additional Comments:

PRISM USE ONLY

Site Arrival Time:
Site Departure Time:
Field Tech Fee:
Mileage:

NPDES:	UST:	GROUNDWATER:	DRINKING WATER:	SOLID WASTE:	RCRA:	CERCLA	LANDFILL	OTHER:
☐ NC ☐ SC	☑ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC
☐ _____	☐ _____	☐ _____	☐ _____	☐ _____	☐ _____	☐ _____	☐ _____	☐ _____

SEE REVERSE FOR TERMS & CONDITIONS

*CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

ORIGINAL

APPENDIX E

PHOTOGRAPHS

Photograph 1: prior to excavation activities.

Photograph 2: Excavation looking westward.

Photograph 3: Excavating UST 1

Photograph 4: UST 2 in place.

Photograph 5: Removing UST-3

Photograph 6: Removing UST-4 and product line.

Photograph 7: UST 5 in place.

Photograph 8: Former dispenser island.

Photograph 9: following closure activities with repaired asphalt.