PRELIMINARY SITE ASSESSMENT

MARGARET MATTHEWS PROPERTY – PARCEL 019
MATTHEWS GENERAL STORE
2340 RAY ROAD
SPRING LAKE, HARNETT COUNTY, NORTH CAROLINA
STATE PROJECT: U-3465
WBS ELEMENT: 39017.1.1
OCTOBER 22, 2012

Report prepared for:

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TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

FIGURES :

TABLES :

APPENDICES :

PRELIMINARY SITE ASSESSMENT
MARGARET MATTEWS PROPERTY – PARCEL 019
MATTHEWS GENERAL STORE
SPRING LAKE, HARNETT COUNTY, NORTH CAROLINA

1.0 Introduction

Pyramid Environmental & Engineering P.C. (Pyramid) has prepared this Preliminary Site Assessment (PSA) report documenting background information, field activities, assessment activities, findings, conclusions, and recommendations for the Margaret Matthews Property (Parcel 019). The Margaret Matthews Property (Parcel 019) contains an inactive convenience store located at 2340 Ray Road, Spring Lake, Harnett County, North Carolina. This preliminary site assessment was conducted on behalf of the North Carolina Department of Transportation (NCDOT) in accordance with Pyramid's August 17, 2012 technical proposal.

The purpose of this assessment was to determine the presence or absence of underground storage tanks (USTs) and impacted soils at the subject property in the proposed right-of-way and construction easement areas related to the widening of Ray Road (State Project U-3465). The location of the subject site is shown on **Figure 1**, and a site map is presented as **Figure 2**. **Figure 3** presents a scaled out perspective of the entire Parcel showing property boundaries, property owner name, and station number/alignment, form the NCDOT engineering files provided to Pyramid.

1.1 Background Information

Based on the NCDOT's July 23, 2012, *Request for Technical and Cost Proposal*, the PSA was conducted within the NCDOT right of way (ROW), easements, or proposed utility easements. The PSA included the following:

- Research the property for past uses and possible releases.
- Conduct a preliminary geophysical site assessment and limited soil assessment in the proposed ROW and easements.
- Measure the depth to groundwater and obtain one groundwater sample for the site for laboratory analysis by installing a temporary monitoring well.

1.2 Project Information

On September 4, 2012, Pyramid personnel talked with the tenants and property owner (Margaret Matthews) of Parcel 019 and received access to the property to complete the PSA field work. Margaret Matthews' phone is (910) 497 - 2228.

Prior to field activities, a Health and Safety Plan was prepared. Prior to drilling activities, the public underground utilities were located and marked by the North Carolina One-Call Service. A private utility locator, Northstate Utility Locating

Incorporated of Colfax, North Carolina was used to mark the on site private, buried utilities including utilities associated with any UST systems.

The Margaret Matthews Property (Parcel 019) contains an inactive convenience store. According to the North Carolina Department of Environment and Natural Resources (NCDENR) UST Section Registry, there are three (3) USTs on the subject property. According to the NCDENR UST Section database, the UST system is comprised of three (3) 6,000-gallon gasoline USTs. The Facility ID number for the site is 0-002736.

Pyramid also completed PSAs for an additional six properties along Ray Road (Parcel #'s 004, 009, 021, 022, 038, and 069). As requested by the NCDOT, Pyramid prepared separate PSA reports for each property.

2.0 Site History

Pyramid completed a records review, NCDENR file review, interviewed NCDNER personnel, and reviewed aerial photographs. Pyramid reviewed the 1938, 1955, 1964, 1971, 1983, 1993, 1999, and 2010 aerial photographs for past uses. The 1955, 1964, 1971, and 1983 aerial photographs are included in **Appendix A.** Historical information reviewed as part of the PSA indicated that the subject site was **first developed for use as a convenience store between 1971 and 1983**. The earliest aerial to show the building and canopy was the 1983 aerial. Prior to 1983, aerial photographs showed that the land was first cleared prior to the 1971 air photo. The 1938 air photo showed the property to be undeveloped wooded land. The 1955 and 1964 aerial photographs indicate the land was most likely used for agricultural purposes.

On September 7, 2012, Pyramid interviewed Mr. James Brown, the incident manager for Harnett County with the NCDENR UST Section. Mr. Brown stated no incidents or releases were in the state database for the site.

As part of the PSA, a background review to identify onsite and potential off-site sources of environmental contamination was performed. The background review included Federal and Non-Federal database searches. FirstSearch Technology Corporation, a commercially available database service was used for the search. Pyramid ordered a road corridor search for the Ray Road sites. **The database search listed the Parcel 019 site on the NCDENR Register for USTs only**. The Environmental FirstSearch Report is included in **Appendix B**.

3.0 Geophysical Investigation

Pyramid has performed a geophysical survey at the property using a combination of electromagnetic (EM61) and Ground Penetrating Radar (GPR) methods. The purpose of the geophysical survey was to identify the presence and location of any metallic Underground Storage Tanks (USTs) at the property. The EM survey recorded anomalies that were consistent with the presence of metallic USTs. The GPR scans confirmed the presence of three probable inactive USTs at the property, located to the east of the pump island. Two (2) metallic USTs were observed to be oriented from west to east, and one UST was oriented from south to north, directly to the east of the pump island. The southernmost tank was approximately 6 feet wide and 13 feet long. The two northern tanks were approximately 8 feet wide and 17 feet long. The tops of each tank were approximately 3 feet below land surface (bls).

The geophysical investigation confirms that the area containing the proposed ROW and easement at Parcel 019 contains three probable metallic USTs. An additional UST was found straddling the parcel boundary between Parcel 019 and 021, as shown in Figure 2 (discussed in detail in the Parcel 021 report). The full details of the geophysical investigation are included in the Geophysical Investigation Report as **Appendix C**.

4.0 Soil Sampling Activities & Results

4.1 Soil Assessment Field Activities

On September 12, 2012, Pyramid mobilized to the site to drill soil borings, install a temporary monitoring well, and collect the proposed soil samples and groundwater sample for the PSA. The soil borings and temporary well were completed using a track mounted Geoprobe® Direct-Push rig. Seven (7) soil borings were advanced on the subject property within the proposed NCDOT ROW and Easement. Five (5) of the soil borings were advanced near the UST system, and two soil borings were advanced along Ray Road down-gradient of the UST system. The selected locations were chosen to avoid public utilities along Ray Road and private utilities associated with the UST system. The locations of the borings are shown on **Figure 2**.

Soil samples were continuously collected in five foot long disposable sleeves from each boring for geologic description, and visual examination for signs of contamination. Soil recovered from each sleeve was field screened using a Photo-Ionization Detector (PID) every 2 to 2.5 feet depending on the soil recovery of each sleeve. In general, the soil sample with the highest PID readings was selected from each boring for laboratory analysis. The soil boring logs with the soil descriptions, visual examination, and PID screening results are included in **Appendix D**. The PID field screening results are summarized in **Table 1**.

In order to prevent cross contamination, new disposable nitrile gloves were worn by the sampling technician during the sampling activities, and were changed between samples. The soil samples selected for laboratory analyses were placed in laboratory prepared containers and shipped to SGS Laboratories in Wilmington, NC. The selected soil samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline range organics (GRO) by EPA Method 8015C/5035 and diesel range organics (DRO) by EPA Method 8015C/3541.

4.2 Soil Sample Analytical Results

The laboratory results for soil boring 19-1(7.5-10) detected TPH-DRO at a concentration of 642 mg/kg and TPH-GRO at a concentration of 473 mg/kg at a depth of 7.5 to 10 feet bls. The laboratory results for soil boring 19-3(7.5-10) detected TPH-DRO above laboratory detection limit (8.21 mg/kg), but below NCDENR Action Level of 10 mg/kg for TPH-DRO. The laboratory results for soil borings 19-2(5-7.5), 19-4(3-5), 19-5(3-5), 19-6(7.5-10), and 19-7(7-7.5) did not detect any TPH-DRO or TPH-GRO above laboratory detection limits. The soil sample laboratory results are summarized in **Table 2**. A copy of the laboratory report and chain-of-custody is included in **Appendix E**.

4.3 Temporary Monitoring Well Installation

On September 12, 2012, Pyramid converted soil boring 19-2 into a 1-inch diameter temporary monitoring well. Soil boring 19-2 was completed to a total depth of 38 feet bls. The temporary well was constructed with 33 feet of 1-inch diameter of schedule 80 PVC casing and 5 feet of 1-inch diameter of schedule 80 PVC slotted screen. The temporary well was set in the boring with 5 feet of slotted screen set at the bottom of the well.

On September 12, 2012, temporary monitoring well 19-2 was gauged using a properly decontaminated electric water level probe. The depth-to-groundwater was gauged at 30.4 feet bls. The temporary monitoring well was sampled using a new 1-inch disposal bailer. After the well was gauged and sampled, the temporary monitoring well was properly abandoned by the drillers by removing all the casing, and filling the bore hole with bentonite chips and portland cement.

4.4 Groundwater Analytical Results

The groundwater sample 19-2(TW) was placed in laboratory prepared containers for analysis of volatile organic compounds (VOCs) by EPA Method 6200B, and the sample was shipped to SGS Laboratories in Wilmington, NC. The laboratory results for groundwater sample 19-2(TW) detected the compounds chloroform (0.29 µg/l) and MTBE (1.36 µg/l) above laboratory detection limits, but below the NCAC 2L Groundwater Standard for chloroform (70 µg/l) and tert-Butyl methyl ether (MTBE) (20 µg/l). No other compounds were detected above laboratory limits. The groundwater results for sample 19-2(TW) are summarized in **Table 3**. A copy of the laboratory report and chain-of-custody is included in **Appendix E**.

5.0 Conclusions and Recommendations

As requested by NCDOT, Pyramid has completed a PSA at Parcel 019 located 2340 Ray Road, Harnett County, Spring Lake, NC. The following is a summary of the assessment activities and results.

5.1 Geophysical Investigation

The EM survey recorded anomalies that were consistent with the presence of metallic USTs. The GPR scans confirmed the presence of three probable USTs at the property, located to the east of the pump island, as well as a fourth probable UST straddling the boundary between Parcel 019 and 021 (discussed in detail in the Parcel 021 report). With respect to the 3 USTs east of the pump island at Parcel 019, two (2) of the USTs were interpreted to be oriented approximately east/west and approximately 8' X 17', and one UST was interpreted to be oriented approximately north/south, and 6' X 13'. The tanks were observed to be at a depth of approximately 3 feet below land surface (bls).

The geophysical investigation confirms that the area containing the proposed ROW and easement at Parcel 019 contains three probable metallic USTs.

5.2 Limited Soil Assessment

Target analytes were detected in two (2) soil samples collected from Parcel 19. The laboratory results for soil boring 19-1(7.5-10) detected TPH-DRO at a concentration of 642 mg/kg and TPH-GRO at a concentration of 473 mg/kg at a depth of 7.5 to 10 feet bls. The laboratory results for soil boring 19-3(7.5-10) detected TPH-DRO above laboratory detection limit (8.21 mg/kg), but below NCDENR Action Level of 10 mg/kg for TPH-DRO. The laboratory results for soil borings 19-2(5-7.5), 19-4(3-5), 19-5(3-5), 19-6(7.5-10), and 19-7(7-7.5) did not detect any TPH-DRO or TPH-GRO above laboratory detection limits.

The detection of TPH-GRO and TPH-DRO at soil boring 19-1 above NCDENR Action Levels, and the detection of TPH-DRO above laboratory limits in soil boring 19-3 indicates a possible petroleum release from the UST system.

5.3 Limited Groundwater Assessment

Soil boring 19-2 was converted into a 1-inch diameter temporary monitoring well to a depth total depth of 38 feet bls. The depth-to-groundwater was gauged at 30.4 feet bls. The laboratory results for groundwater sample 19-2(TW) detected the compounds chloroform (0.29 µg/l) and MTBE (1.36 µg/l) above laboratory detection limits, but below the NCAC 2L Groundwater Standards for chloroform and MTBE, which are (70 µg/l) and (20 µg/l) respectively. No other compounds were detected above laboratory limits.

5.4 Recommendations

Prior to road construction activities, the dispensers (pump island), product lines, the three USTs, and contents should be properly removed and disposed of according NCDENR UST Section regulations.

During road construction activities, it is possible the NCDOT may encounter petroleum impacted soil over the NCDENR Action Levels near soil boring 19-1. It is also possible the NCDOT may encounter petroleum impacted soil below the NCDENR Action Levels, but above laboratory detection limits near soil boring 19-3. If the soil is impacted between soil borings 19-1 and 19-3 to a depth of 10 feet, approximately 180 cubic yards of petroleum impacted soil may be expected. Pyramid estimates approximately 90 cubic yards of impacted soil will be encounter from 0 to 5 feet between soil borings 19-1 and 19-3.

If impacted soil is encountered and removed from around the UST system, the impacted soil should be managed according to NCDENR DWN UST Section Guidelines and disposed of at a permitted facility. Petroleum impacted soil from a UST system is considered non-hazardous waste. A list of permitted soil remediation facilities can be found on the NCDENR DWN UST Section web-page (http://portal.ncdenr.org/web/wm/ust/soilsites).

6.0 Limitations

The estimated volumes of petroleum contaminated soil are based on the limited data points and soil samples collected by Pyramid for this preliminary investigation. The actual amount of petroleum impacted/contaminated soil may vary depending on the actual grading plan for the project within the affected ROW and easement. The laboratory results only reflect the current conditions at the locations sampled on the date this Preliminary Site Assessment was performed.

7.0 Closure

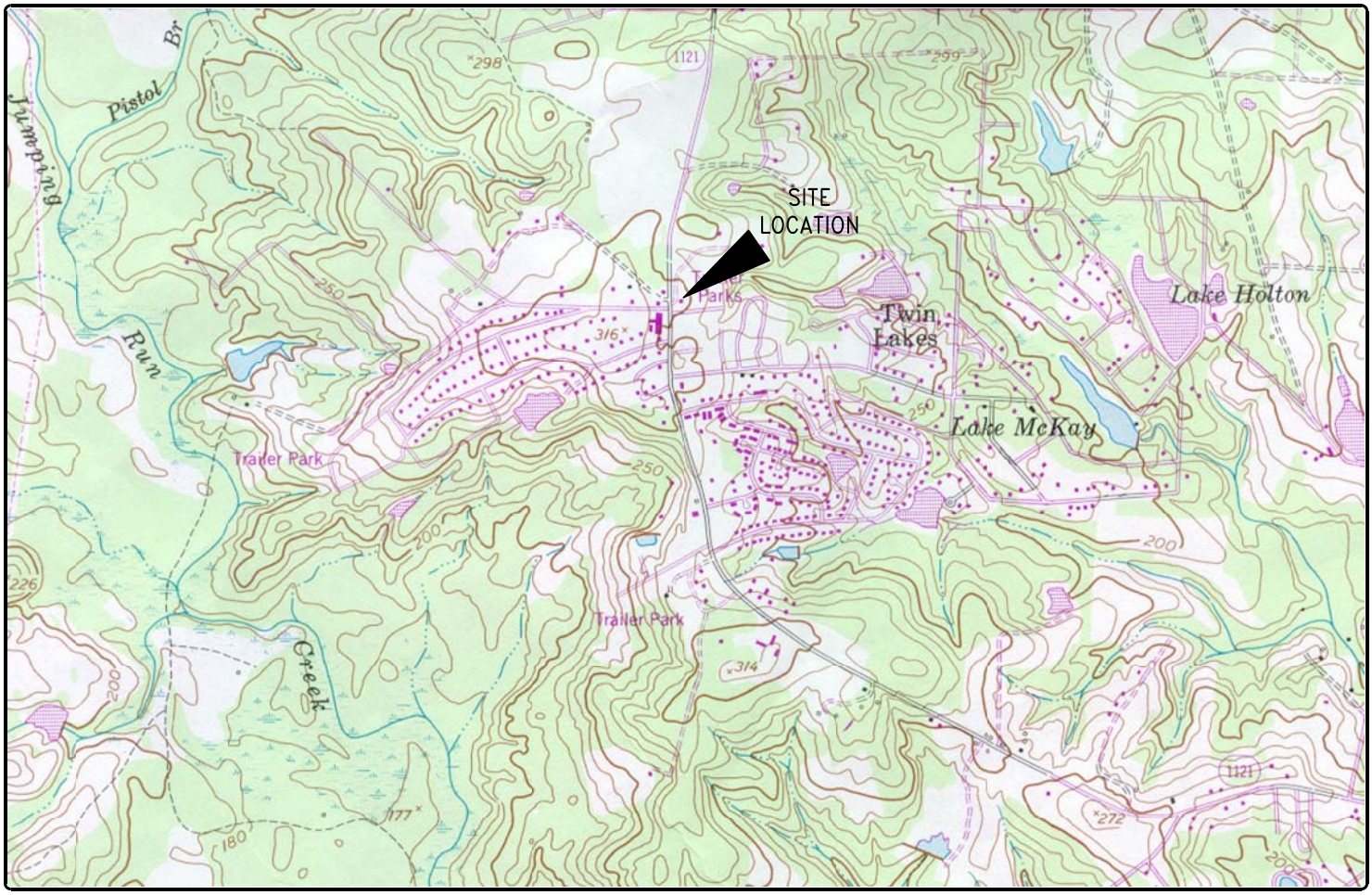
This report was prepared for, and is available solely for use by NCDOT and their designees. The contents thereof may not be used or relied upon by any other person without the express written consent and authorization of Pyramid Environmental & Engineering, P.C. (Pyramid). The observations, conclusions, and recommendations documented in this report are based on site conditions and information reviewed at the time of Pyramid's investigation. Pyramid appreciates the opportunity to provide this environmental service.

FIGURES

USGS TOPOGRAPHIC MAP

SITE: 2340 RAY ROAD

LOCATION: SPRING LAKE, NORTH CAROLINA



USGS IDENTIFICATION

USGS 7.5 MINUTE MAP	MANCHESTER, NC
ORIGINAL DATE:	1957
PHOTOREVISION DATE:	1987

	PRIMARY HIGHWAY, HARD SURFACE
	SECONDARY HIGHWAY, HARD SURFACE
	LIGHT-DUTY ROAD HARD OR IMPROVED SURFACE
	UNIMPROVED ROAD
	STATE ROAD
	U.S. ROUTE
	INTERSTATE ROUTE

SCALES

MILES: 1/2 0 1

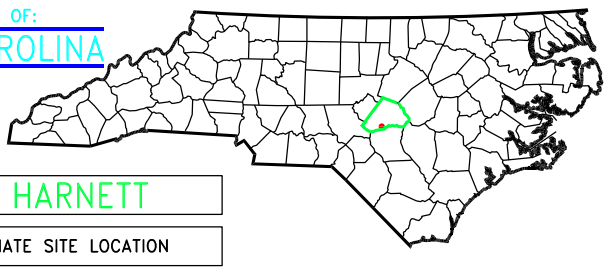
FEET: 1000 0 2000 4000 6000

1" = 2000'

NOTES:
- TOPOGRAPHICAL CONTOUR INTERVAL = 10 FEET
- PHOTOREVISIONS DENOTED IN PURPLE

MAGNETIC NORTH

COUNTY MAP OF: NORTH CAROLINA



COUNTY: HARNETT

APPROXIMATE SITE LOCATION

PYRAMID
ENVIRONMENTAL & ENGINEERING, P.C.

CLIENT: NC DOT U-3465

PROPERTY NAME: 2340 RAY RD. PARCEL 019

CITY: SPRING LAKE STATE: NORTH CAROLINA

TITLE: TOPOGRAPHIC MAP

SCALE: 1"=2000'

DATE: 9/21/12

DRAWING NAME: USGSTOPO

DRAWN BY: KAM

CHECK BY: TDL

JOB NO.: 2012-228

TYPE: PHASE II

FIGURE NUMBER: 1

NOTES

TOPOGRAPHIC MAP USED IN THIS GRAPHIC IS MAPPED, EDITED, AND PUBLISHED BY THE UNITED STATES GEOLOGIC SURVEY, DEPARTMENT OF THE INTERIOR, RESTON VIRGINIA.

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS.

B 019-3(7.5-10')
(8.21)
[<3.24]

B 019-4(3-5')
(<6.99)
[<3.9]

B 019-5(3-5')
(<7.59)
[<3.94]

B 019-6(7.5-10')
(<7.05)
[<3.64]

B 019-2(5-7.5')
(<7.62)
[<3.88]

B 019-7(5-7.5')
(<8.35)
[<5.03]

B 021-5(7.5-10')
(569)
[1250]

B 021-3(5-7.5')
(<6.85)
[<3.54]

B 021-9(7.5-10')
(<6.85)
[<3.54]

B 021-2(7.5-10')
(<7.74)
[<3.58]

B 021-7(7.5-10')
(54.1)
[67]

B 021-8(7.5-10')
(117)
[290]

B 019-1(7.5-10')
(642)
[473]

B 021-6(7-10')
(31.3)
[48.2]

B 021-4(5-7.5')
(11.9)
[<3.22]

B 021-1(7.5-10')
(965)
[4360]

LEGEND

- PROPOSED UTILITY EASEMENT
- EXISTING ROW
- EXISTING PROPERTY BOUNDARY
- PROPOSED ROW
- PROPOSED CONST. EASEMENT
- PROP. DRAINAGE UTIL. EASEMENT
- PROPOSED SS CUT LINE
- PROPOSED SS FILL LINE
- PROPOSED SS TRANSITION LINE
- PROPOSED DRAINAGE PIPING
- PROPOSED DRAINAGE EASEMENT
- PROPOSED CATCH BASIN
- SOIL SAMPLE BORING LOCATION
- BORING CONVERTED TO MW
- AREA OF CONTAMINATION (>BDL, <10 PPM)
- AREA OF CONTAMINATION (>10 PPM)
- POSSIBLE UST
- PROBABLE UST

(<6.1) TPH-DRO concentration (mg/kg)
[<6.1] TPH-GRO concentration (mg/kg)

N

0 50 100

FEET

TITLE: SOIL BORING LOCATIONS AND ESTIMATED AREA OF CONTAMINATION

PROJECT: NCDOT ROW PROJECT U-3465 (3907.1.1)
MARGARET MATTHEWS PROPERTY - PARCEL 019
AND LOUISE LEE PROPERTY - PARCEL 021
RAY ROAD, HARNETT COUNTY, NORTH CAROLINA

PYRAMID ENVIRONMENTAL & ENGINEERING, P.C.
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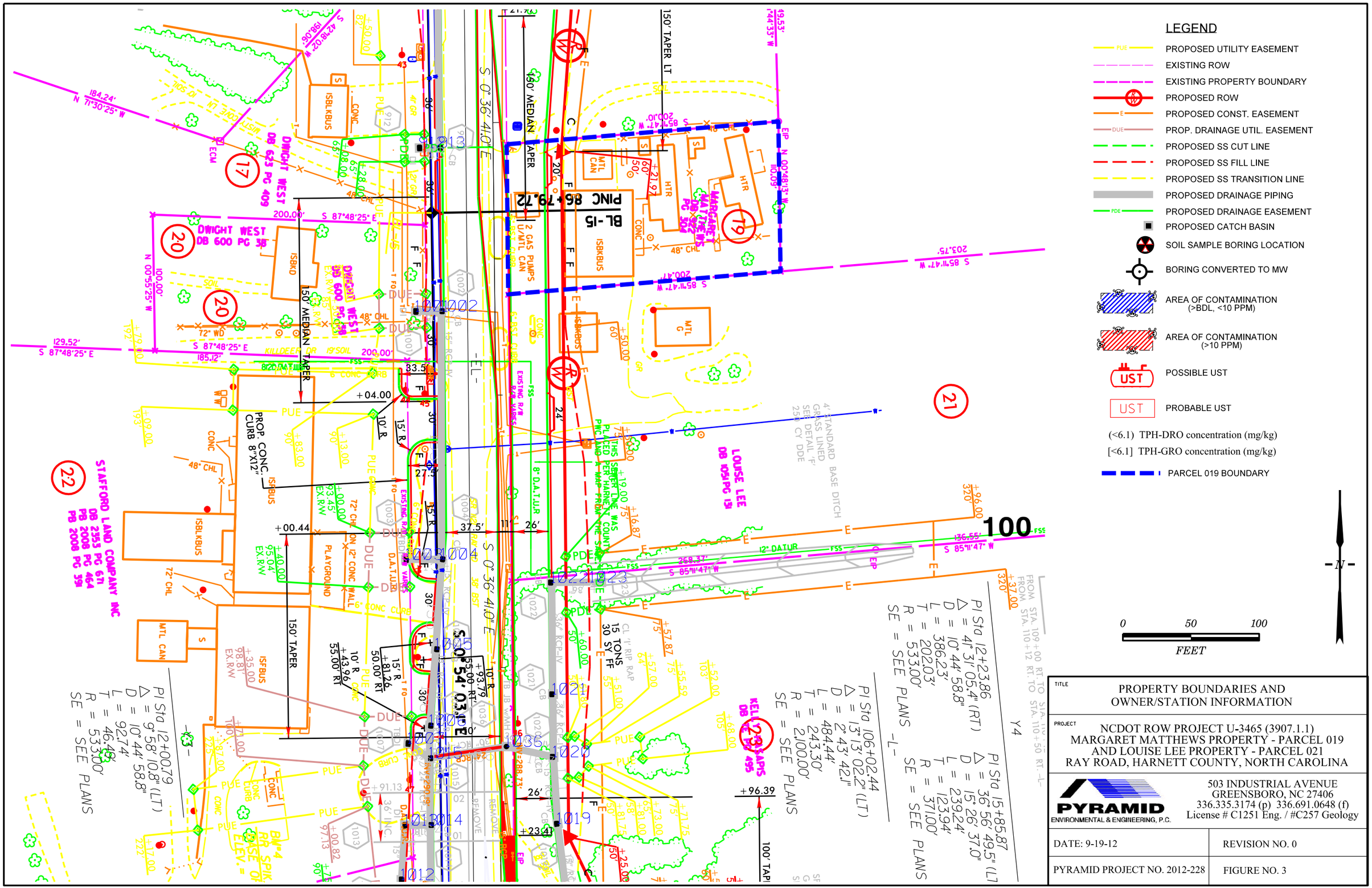
DATE: 9-19-12 | REVISION NO. 0

PYRAMID PROJECT NO. 2012-228 | FIGURE NO. 2



TITLE

PROPERTY BOUNDARIES AND OWNER/STATION INFORMATION

PROJECT

NCDOT ROW PROJECT U-3465 (3907.1.1)
MARGARET MATTHEWS PROPERTY - PARCEL 019
AND LOUISE LEE PROPERTY - PARCEL 021
RAY ROAD, HARNETT COUNTY, NORTH CAROLINA

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License # C1251 Eng. / #C257 Geology

DATE: 9-19-12	REVISION NO. 0
PYRAMID PROJECT NO. 2012-228	FIGURE NO. 3

TABLES

TABLE 1

Summary of PID Screening Results

NCDOT Project U-3465

2340 Ray Road - Parcel 019

Harnett County, Spring Lake, North Carolina

SOIL BORING	SAMPLE ID	DEPTH (feet bgs)	PID READINGS (PPM)
19-1	19-1(3-5)	3 to 5	25
	19-1(5-7.5)	5 to 7.5	200
	19-1(7.5-10)	7.5 to10	**5000**
19-2	19-2(3-5)	3 to 5	100
	19-2(5-7.5)	5 to 7.5	**230**
	19-2(7.5-10)	7.5 to10	100
	19-2(12-15)	12 to 15	75
19-3	19-3(2-5)	2 to 5	65
	19-3(5-7.5)	5 to 7.5	65
	19-3(7.5-10)	7.5 to10	**65**
19-4	19-4(3-5)	3 to 5	**85**
	19-4(5-7.5)	5 to 7.5	50
	19-4(7.5-10)	7.5 to 10	50
	19-4(12-15)	12 to 15	80
19-5	19-5(3-5)	3 to 5	**110**
	19-5(5-7.5)	5 to 7.5	75
	19-5(7.5-10)	7.5 to 10	30
	19-5(12-15)	12 to 15	100
19-6	19-6(3-5)	3 to 5	75 to 80
	19-6(5-7.5)	5 to 7.5	100
	19-6(7.5-10)	7.5 to 10	**110**
	19-6(12-15)	12 to 15	85
19-7	19-7(3-5)	3 to 5	75
	19-7(5-7.5)	5 to 7.5	**95**
	19-7(7.5-10)	7.5 to 10	90

bgs= below ground surface

PID= photo-ionization detector

PPM= parts-per-million

TABLE 2

Summary of Soil Sample Analytical Results

NCDOT Project U-3465
2340 Ray Road - Parcel 019
Harnett County, Spring Lake, North Carolina

SAMPLE ID	DATE	DEPTH (feet)	PID (ppm)	EPA Method 3550 DRO (mg/kg)	EPA Method 5035 GRO (mg/kg)
19-1(7.5-10)	9/12/2012	7.5 to 10	5000	**642**	**473**
19-2(5-7.5)	9/12/2012	5 to 7.5	230	<7.62	<3.88
19-3(7.5-10)	9/12/2012	7.5 to 10	65	8.21	<3.24
19-4(3-5)	9/12/2012	3 to 5	85	<6.99	<3.9
19-5(3-5)	9/12/2012	3 to 5	110	<7.59	<3.94
19-6(7.5-10)	9/12/2012	7.5 to 10	110	<7.05	<3.64
19-7(5-7.5)	9/12/2012	5 to 7.5	95	<8.35	<5.03
NC Initial Cleanup Level - UST Section for 5035/5030-GRO; 3550-DRO				10	10

PID= photo-ionizaton detector
PPM= parts-per-million
GRO= Gasoline Range Organics
DRO= Diesel Range Organics
mg/kg= micograms-per-kilogram

TABLE 3

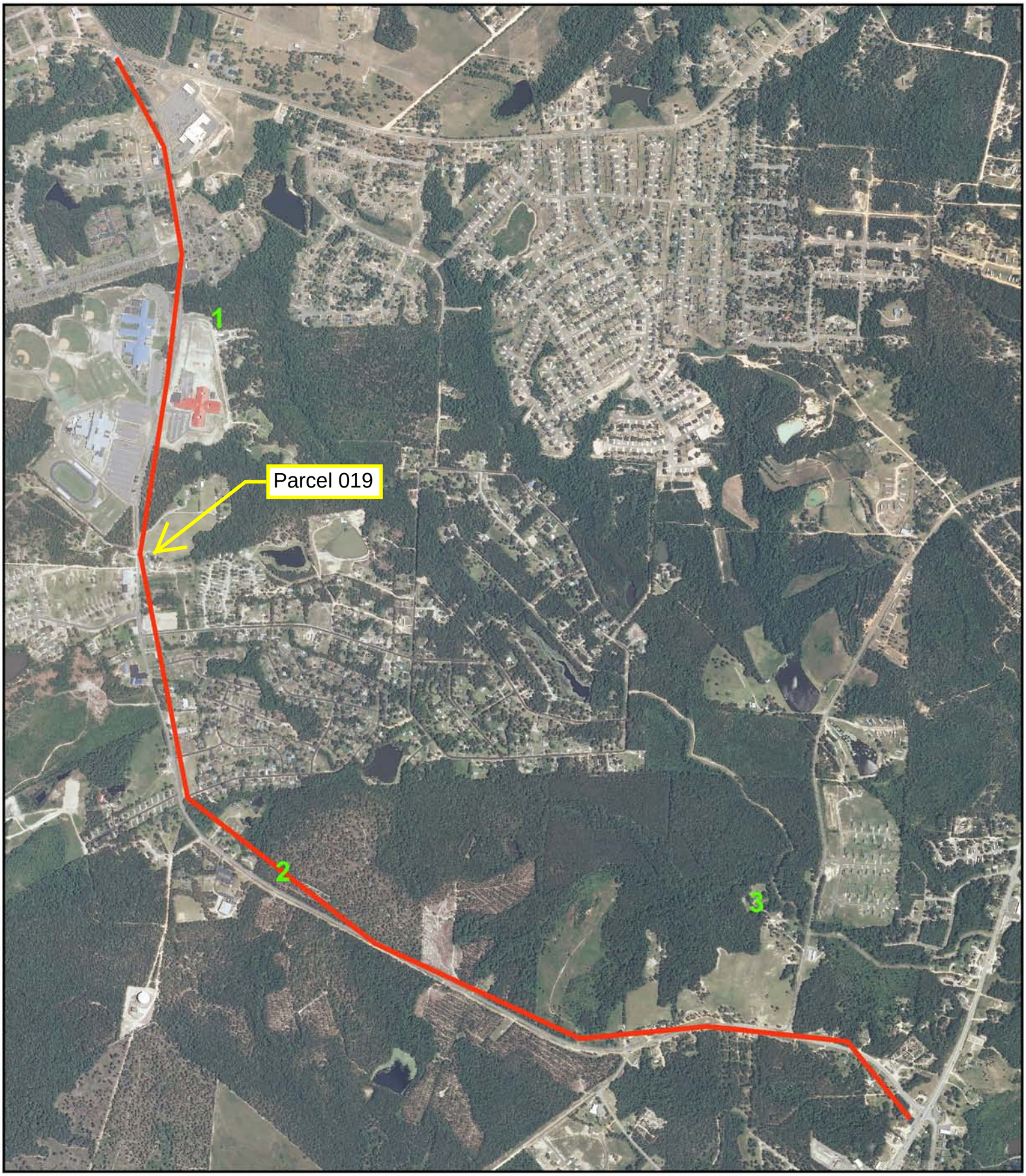
Summary of Groundwater Analytical Results

NCDOT Project U-3465
2340 Ray Road - Parcel 019
Harnett County, Spring Lake, North Carolina

PARAMETER	UNITS	SAMPLE ID	NCAC 2L GROUNDWATER STANDARD
		19-2(TW)	
EPA Method 6200B; Sample Collection Date: 9/12/12			
Benzene	ug/L	ND	1
Chloroform	ug/L	0.29	70
Diisopropyl Ether (IPE)	ug/L	ND	70
Ethyl Benzene	ug/L	ND	600
Isopropylbenzene (Cumene)	ug/L	ND	70
Naphthalene	ug/L	ND	6
Styrene	ug/L	ND	70
Toluene	ug/L	ND	600
Total Xylenes	ug/L	ND	500
n-Propylbenzene	ug/L	ND	70
sec-Butylbenzene	ug/L	ND	70
tert-Butyl methyl ether (MTBE)	ug/L	1.36	20
tert-Butylbenzene	ug/L	ND	70
1,2,4-Trimethylbenzene	ug/L	ND	400
1,2-Dichloroethane	ug/L	ND	0.4
1,3,5-Trimethylbenzene	ug/L	ND	400
4-Isopropyltoluene	ug/L	ND	25
All Other Parameters	ug/L	ND	NA

ug/L= micrograms-per-liter
ND= Not Detected
NA= Not Applicable

APPENDIX A



Historical Aerial Photo

2010 - REFERENCE MOSAIC

SR 1121 FROM NC 210 TO SR 1120

SPRING LAKE, NC 28390

Target Site: 35.240729, -78.953625; Job Number: 2012-228

FIRSTSEARCH

N W E S

1 inch equals 1,416 feet

Historical Aerial Photo
2010 - SECTION 1
SR 1121 FROM NC 210 TO SR 1120
SPRING LAKE, NC 28390

FIRSTSEARCH

Target Site: 35.240729, -78.953625; Job Number: 2012-228

N
W E
S

1 inch equals 750 feet

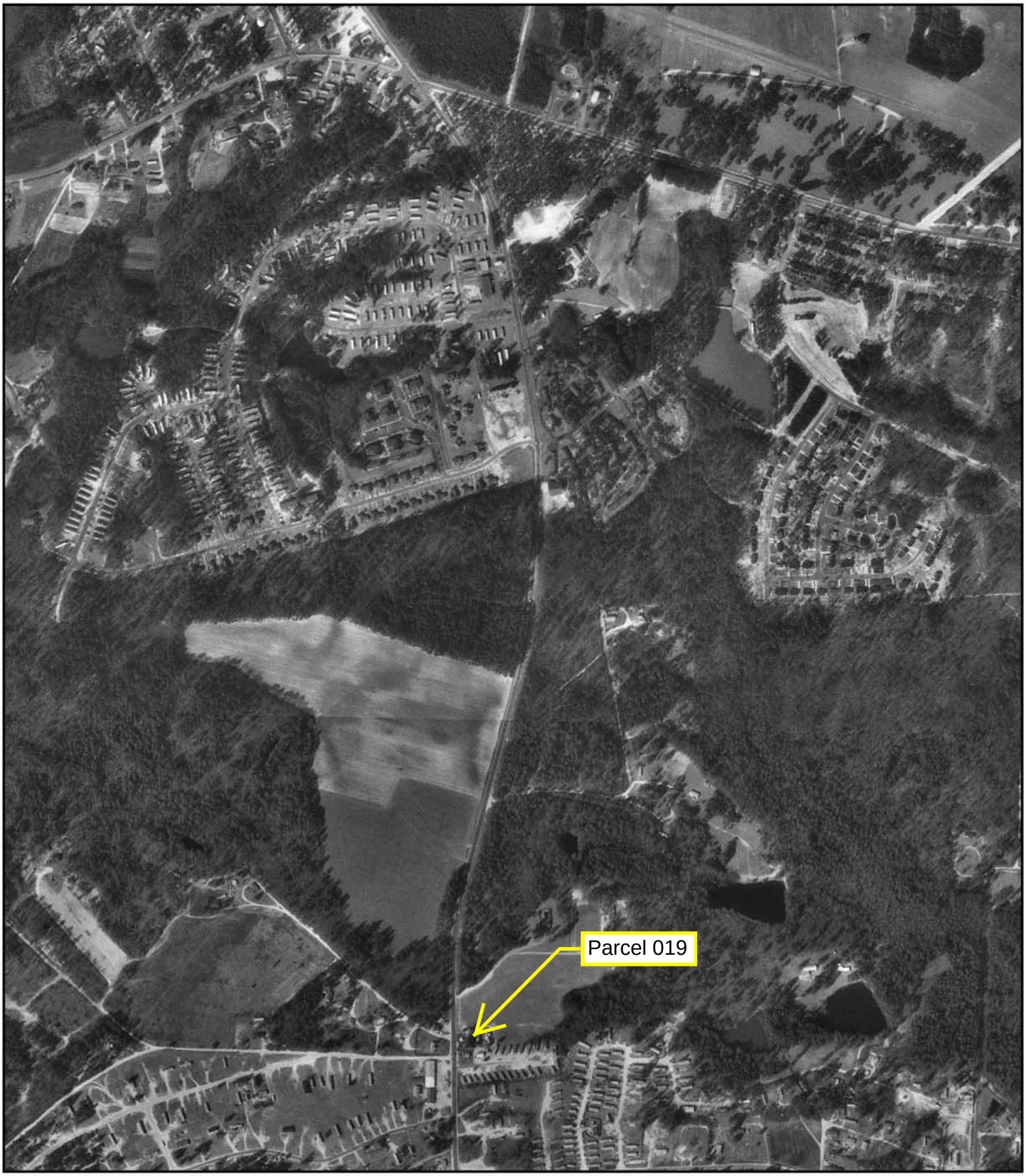
Historical Aerial Photo
1999 - SECTION 1
SR 1121 FROM NC 210 TO SR 1120
SPRING LAKE, NC 28390

FIRSTSEARCH

Target Site: 35.240729, -78.953625; Job Number: 2012-228

N
W E
S

1 inch equals 750 feet



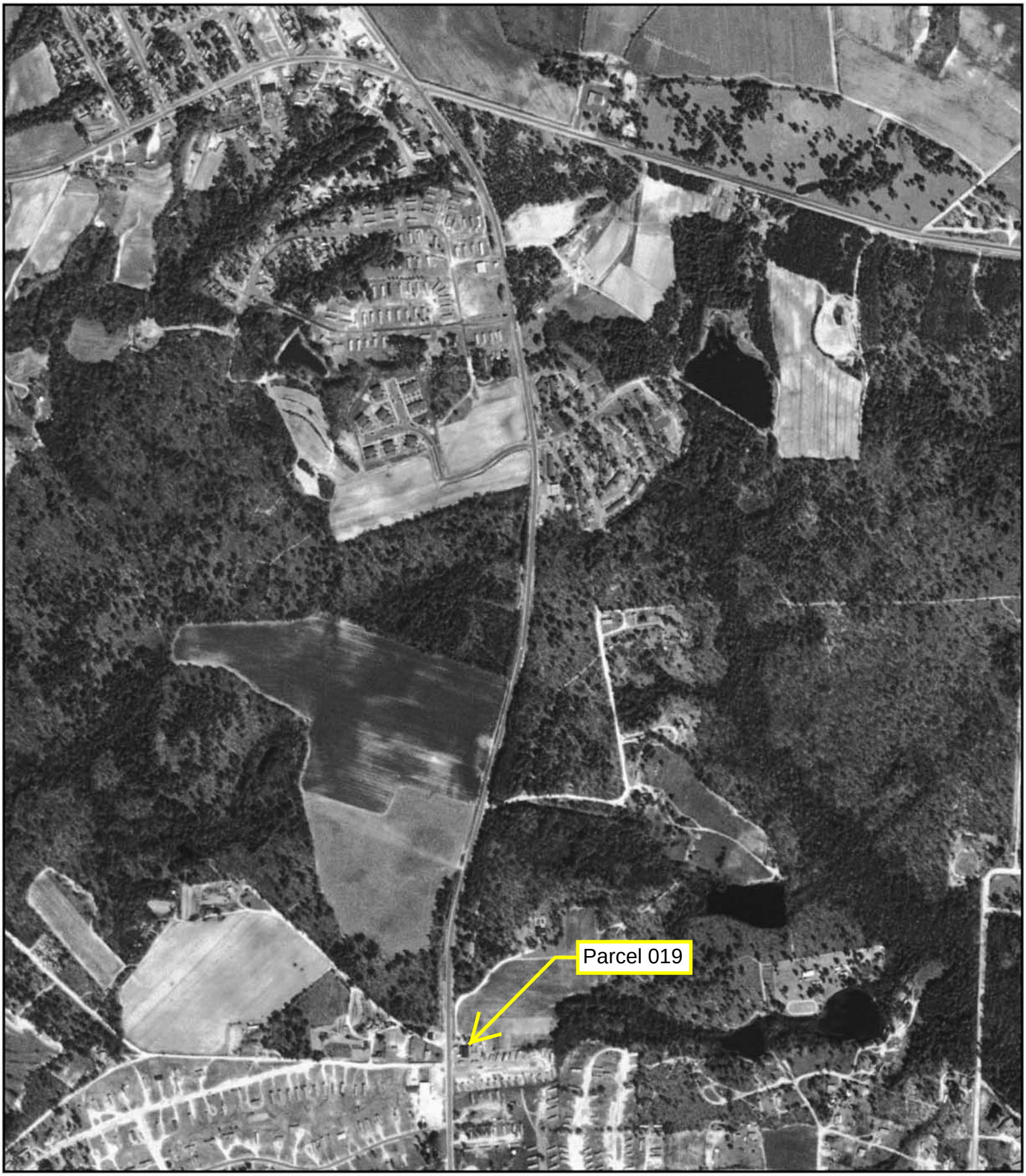
Historical Aerial Photo
1993 - SECTION 1
SR 1121 FROM NC 210 TO SR 1120
SPRING LAKE, NC 28390

FIRSTSEARCH

Target Site: 35.240729, -78.953625; Job Number: 2012-228

N
W E
S

1 inch equals 750 feet



Historical Aerial Photo
1983 - SECTION 1
SR 1121 FROM NC 210 TO SR 1120
SPRING LAKE, NC 28390

FIRSTSEARCH

Target Site: 35.240729, -78.953625; Job Number: 2012-228

N
W E
S

1 inch equals 750 feet

Historical Aerial Photo
1971 - SECTION 1
SR 1121 FROM NC 210 TO SR 1120
SPRING LAKE, NC 28390

Target Site: 35.240729, -78.953625; Job Number: 2012-228

FIRSTSEARCH

N
W E
S

1 inch equals 750 feet

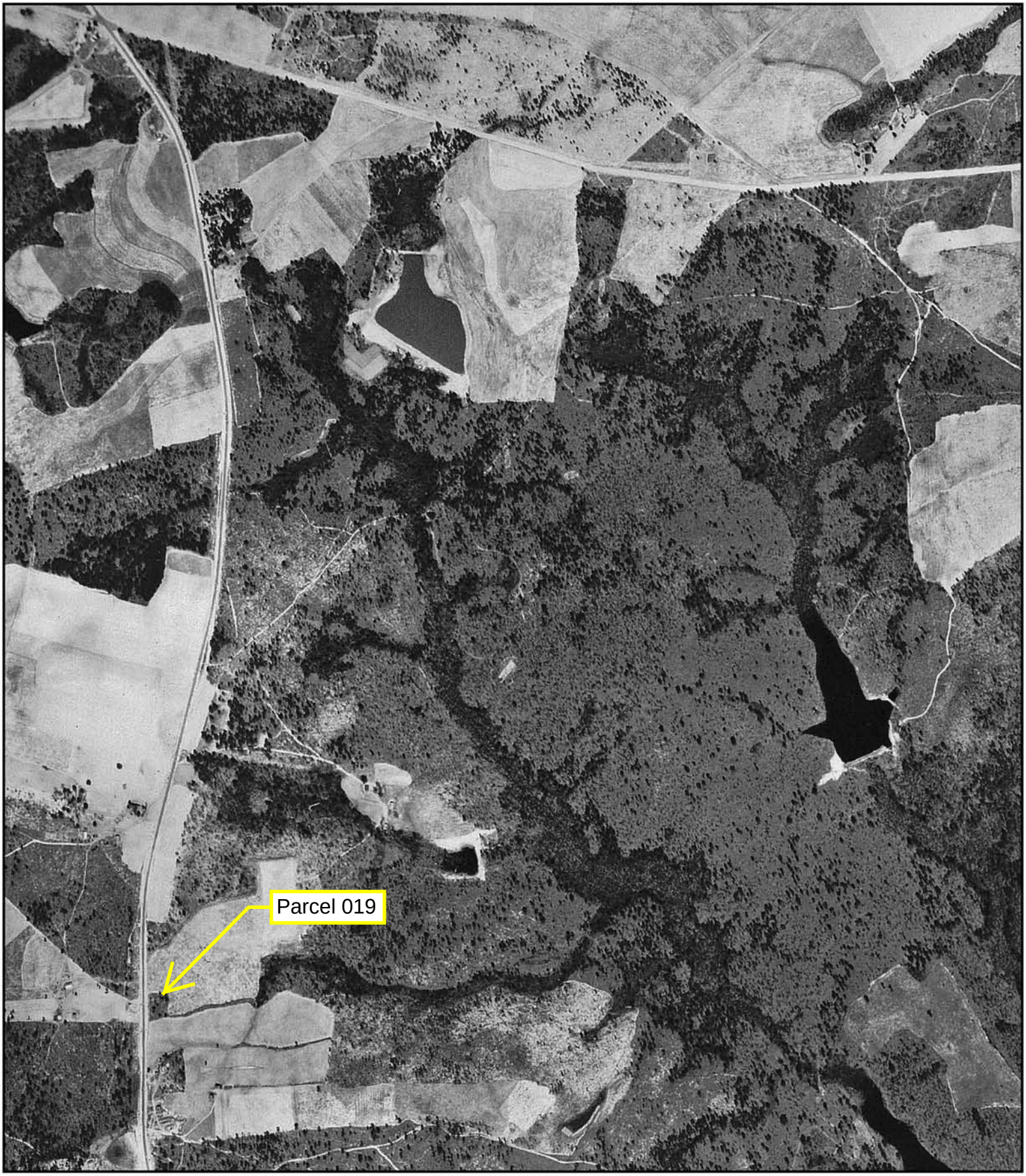
Historical Aerial Photo
1964 - SECTION 1
SR 1121 FROM NC 210 TO SR 1120
SPRING LAKE, NC 28390

Target Site: 35.240729, -78.953625; Job Number: 2012-228

FIRSTSEARCH

N
W E
S

1 inch equals 750 feet



Historical Aerial Photo
1955 - SECTION 1
SR 1121 FROM NC 210 TO SR 1120
SPRING LAKE, NC 28390

FIRSTSEARCH

Target Site: 35.240729, -78.953625; Job Number: 2012-228

N
W E
S

1 inch equals 750 feet

Historical Aerial Photo
1938 - SECTION 1
SR 1121 FROM NC 210 TO SR 1120
SPRING LAKE, NC 28390

Target Site: 35.240729, -78.953625; Job Number: 2012-228

FIRSTSEARCH

N
W E
S

1 inch equals 750 feet

APPENDIX B

FIRSTSEARCH

ENVIRONMENTAL FIRSTSEARCH REPORT

TARGET PROPERTY:

NCDOT PROJECT U-3465

SR 1121 - NC 210 - SR 1120

SPRING LAKE, NC 28390

JOB NUMBER: 2012-228

PREPARED FOR:

Pyramid Environmental & Engineering, PC

503 Industrial Ave.

Greensboro, NC 27406

September 6, 2012

Environmental FirstSearch
Search Summary Report

Target Site: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	07-09-12	1.00	0	0	0	0	0	0	0
NPL Delisted	Y	07-09-12	0.50	0	0	0	0	-	0	0
CERCLIS	Y	08-01-12	0.50	0	0	0	0	-	0	0
NFRAP	Y	08-01-12	0.50	0	0	0	0	-	0	0
RCRA COR ACT	Y	07-10-12	1.00	0	0	0	0	0	0	0
RCRA TSD	Y	07-10-12	0.50	0	0	0	0	-	0	0
RCRA GEN	Y	07-10-12	0.25	0	0	0	-	-	0	0
Federal Brownfield	Y	07-15-12	0.25	0	0	0	-	-	0	0
ERNS	Y	07-05-12	0.12	0	0	-	-	-	1	1
Tribal Lands	Y	12-15-08	1.00	0	0	0	0	0	1	1
State/Tribal Sites	Y	06-08-12	1.00	0	0	0	0	0	0	0
State Spills 90	Y	06-01-12	0.12	3	0	-	-	-	0	3
State/Tribal SWL	Y	05-26-11	0.50	0	0	0	0	-	0	0
State/Tribal LUST	Y	06-01-12	0.50	2	1	0	2	-	2	7
State/Tribal UST/AST	Y	06-01-12	0.25	5	0	0	-	-	1	6
State/Tribal EC	Y	NA	0.25	0	0	0	-	-	0	0
State/Tribal IC	Y	06-08-12	0.25	0	0	0	-	-	0	0
State/Tribal VCP	Y	07-30-07	0.50	0	0	0	0	-	0	0
State/Tribal Brownfields	Y	08-10-12	0.50	0	0	0	0	-	0	0
Federal IC/EC	Y	06-13-12	0.50	0	0	0	0	-	0	0
-TOTALS-				10	1	0	2	0	5	18

Notice of Disclaimer

Due to the limitations, constraints, and inaccuracies and incompleteness of government information and computer mapping data currently available to FirstSearch Technology Corp., certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in FirstSearch Technology Corp.'s databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

Although FirstSearch Technology Corp. uses its best efforts to research the actual location of each site, FirstSearch Technology Corp. does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of FirstSearch Technology Corp.'s services proceeding are signifying an understanding of FirstSeaarch Technology Corp.'s searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

Environmental FirstSearch
Site Information Report

Request Date:	09-06-12	**Search Type:**	LINEAR
Requestor Name:	Brett Higgins		3.499 mile(s)
Standard:	ASTM-05	**Job Number:**	2012-228
		Filtered Report	

Target Site: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

Demographics

Sites:	18	**Non-Geocoded:**	5	**Population:**	NA

Radon: 0 PCI/L

Fire Insurance Map Coverage: No (>350 Ft. From Coverage)

Site Location

	Degrees (Decimal)	Degrees (Min/Sec)		UTMs
Longitude:	-78.953625	-78:57:13	**Easting:**	686206.771
Latitude:	35.240729	35:14:27	**Northing:**	3901460.421
Elevation:	213		**Zone:**	17

Comment

Comment:

Additional Requests/Services

Adjacent ZIP Codes:

ZIP Code	City Name	ST	Dist/Dir	Sel

Services:

	Requested?	Date
Fire Insurance Maps	No	
Aerial Photographs	Yes	09-06-12
Historical Topos	No	
City Directories	No	
Title Search	No	
Municipal Reports	No	
Liens	No	
Historic Map Works	No	
Online Topos	No	

Environmental FirstSearch
Target Site Summary Report

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

TOTAL: 18 **GEOCODED:** 13 **NON GEOCODED:** 5 **SELECTED:** 0

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
1	SPILLS	RYAN S GROCERY 12015/CURRENT RECORD	7939 RAY RD SPRING LAKE NC 28390	0.00 --	+ 106	1
1	UST	RYAN S GROCERY 0-026491/TEMPORARILY CLOSED	7939 RAY RD SPRINGLAKE NC 28390	0.00 --	+ 106	2
1	UST	RYAN S GROCERY FA-675/UNKNOWN	7939 RAY RD SPRING LAKE NC 28390	0.00 --	+ 106	5
1	LUST	RYAN S GROCERY NCI-012015/RESPONSE	7939 RAY RD SPRING LAKE NC 28390	0.00 --	+ 106	7
2	SPILLS	DALTON HOLDER STORE 17793/CURRENT RECORD	6701 RAY RD SPRING LAKE NC 28390	0.00 --	+ 81	8
2	UST	DATON HOLDER 0-017886/PERM CLOSED REMOVED	6701 RAY RD SPRING LAKE NC 28390	0.00 --	+ 81	9
2	LUST	DALTON HOLDER STORE NCI-017793/RESPONSE	6701 RAY RD SPRING LAKE NC 28390	0.00 --	+ 81	12
3	SPILLS	HOLDERS GROCERY 85611/CURRENT RECORD	UNKNOWN SPRING LAKE NC 28390	0.00 --	+ 13	13
4	UST	MATTHEWS GENERAL STORE 0-002736/CURRENTLY OPERATIONAL	7100 RAY RD SPRING LAKE NC 28390	0.00 --	+ 64	14
5	UST	SHORT STOP FOOD MARTS 8 0-021508/CURRENTLY OPERATIONAL	7925 RAY RD SPRING LAKE NC 28390	0.00 --	+ 105	17

Environmental FirstSearch
Sites Summary Report

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

TOTAL: 18 **GEOCODED:** 13 **NON GEOCODED:** 5 **SELECTED:** 0

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
1	SPILLS	RYAN S GROCERY 12015/CURRENT RECORD	7939 RAY RD SPRING LAKE NC 28390	0.00 --	+ 106	1
1	UST	RYAN S GROCERY 0-026491/TEMPORARILY CLOSED	7939 RAY RD SPRINGLAKE NC 28390	0.00 --	+ 106	2
1	UST	RYAN S GROCERY FA-675/UNKNOWN	7939 RAY RD SPRING LAKE NC 28390	0.00 --	+ 106	5
1	LUST	RYAN S GROCERY NCI-012015/RESPONSE	7939 RAY RD SPRING LAKE NC 28390	0.00 --	+ 106	7
2	SPILLS	DALTON HOLDER STORE 17793/CURRENT RECORD	6701 RAY RD SPRING LAKE NC 28390	0.00 --	+ 81	8
2	UST	DATON HOLDER 0-017886/PERM CLOSED REMOVED	6701 RAY RD SPRING LAKE NC 28390	0.00 --	+ 81	9
2	LUST	DALTON HOLDER STORE NCI-017793/RESPONSE	6701 RAY RD SPRING LAKE NC 28390	0.00 --	+ 81	12
3	SPILLS	HOLDERS GROCERY 85611/CURRENT RECORD	UNKNOWN SPRING LAKE NC 28390	0.00 --	+ 13	13
4	UST	MATTHEWS GENERAL STORE 0-002736/CURRENTLY OPERATIONAL	7100 RAY RD SPRING LAKE NC 28390	0.00 --	+ 64	14
5	UST	SHORT STOP FOOD MARTS 8 0-021508/CURRENTLY OPERATIONAL	7925 RAY RD SPRING LAKE NC 28390	0.00 --	+ 105	17
6	LUST	HOLDERS GROCERY NCI-085611/ASSESSMENT	1899 RAY RD SPRING LAKE NC	0.11 SW	+ 53	20
7	LUST	LEWIS OIL CO. NCI-005466/	0 HIGHWAY 210 MANCHESTER NC	0.27 SE	+ 4	21
8	LUST	LEWIS OIL GROCERY STORE NCI-014732/RESPONSE	0 NC 210 & SR 1600 SPRING LAKE NC 28390	0.38 SE	- 53	22

Environmental FirstSearch
Sites Summary Report

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

TOTAL: 18 **GEOCODED:** 13 **NON GEOCODED:** 5 **SELECTED:** 0

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
	ERNS	BETWEEN THE TOWNS SPRING LAKE NRC-554942/FIXED	AND SANFORD ON HWY SPRING LAKE NC	NON GC	N/A	N/A
	UST	STEWARTS OF SPRING LAKE 0-036564/PERM CLOSED REMOVED	SR 2045 AND SR 2048 SPRING LAKE NC	NON GC	N/A	N/A
	LUST	DEVON S GROCERY NCI-015437/RESPONSE	ROUTE 1, BOX 425, SR2048 SPRING LAKE NC 28390	NON GC	N/A	N/A
	LUST	LONG VALLEY FARM NCI-012016/CLOSED OUT	MANCHESTER ROAD SPRING LAKE NC 28390	NON GC	N/A	N/A
	TRIBALLA	BUREAU OF INDIAN AFFAIRS CONTACT I BIA-28390/	UNKNOWN NC 28390	NON GC	N/A	N/A

Environmental FirstSearch
Site Detail Report

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

SPILLS

SEARCH ID: 18 **DIST/DIR:** 0.00 -- **ELEVATION:** 319 **MAP ID:** 1

NAME: RYAN S GROCERY
ADDRESS: 7939 RAY RD
SPRING LAKE NC 28390
HARNETT
CONTACT:
SOURCE: NCDENR

REV: 9/23/11
ID1: 12015
ID2: FA-675
STATUS: CURRENT RECORD
PHONE:

SITE INFORMATION

OWNER/OPERATOR: CHRISTINE RYAN

RT. 3, BOX 599-A
SPRING LAKE NC 28390

DATE OF RELEASE: 12/21/1993
DATE SUBMITTED: 4/11/1994
DESCRIPTION OF INCIDENT: A LEAK WAS DISCOVERED WHEN USTS WERE RMEOVED

CONTAMINATION INFORMATION
GROUNDWATER CONTAMINATED?: Y
MAJOR SOIL CONTAMINATION?: N

MATERIAL INVOLVED (1): GASOLINE
AMOUNT LOST (1):
AMOUNT RECOVERED (1):

MATERIAL INVOLVED (2):
AMOUNT LOST (2):
AMOUNT RECOVERED (2):

MATERIAL INVOLVED (3):
AMOUNT LOST (3):
AMOUNT RECOVERED (3):

NUMBER OF WELLS AFFECTED: 0
NAME(S) OF CONTAMINATED WELLS:

PRIORITY INFORMATION:
RISK SITE?: H
SITE PRIORITY: 085B
PRIORITY CODE: H
PRIORITY UPDATE: 4/15/1998

STATUS INFORMATION:
LAST MODIFIED:
INCIDENT PHASE: RESPONSE
NOV ISSUED:
NORR ISSUED:
45 DAY REPORT:
CORRECTIVE ACTION PLAN:
CLOSURE REQ DATE:
CLOSE-OUT REPORT:

Environmental FirstSearch
Site Detail Report

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

UST

SEARCH ID: 4 **DIST/DIR:** 0.00 -- **ELEVATION:** 319 **MAP ID:** 1

NAME: RYAN S GROCERY
ADDRESS: 7939 RAY RD
SPRINGLAKE NC 28390
HARNETT
CONTACT: CHRISTINE RYAN
SOURCE: NCDENR

REV: 6/1/12
ID1: 0-026491
ID2: 00-0-0000026491
STATUS: TEMPORARILY CLOSED
PHONE:

SITE INFORMATION

TOTAL NUMBER OF TANKS: 5

CONTACT INFORMATION: CHRISTINE RYAN
7939 RAY ROAD
SPRINGLAKE NC 28390

TANK NUMBER: 1
ROOT TANK ID:
TANK STATUS:
INSTALLATION DATE:
PERM CLOSED:
CONTENTS: Gasoline, Gas Mix
CAPACITY IN GALLONS: 6000
TANK CONSTRUCTION:3
PIPE CONSTRUCTION:4
MAIN TANK:NO
COMPARTMENT TANK:NO
MANIFOLD TANK:
COMMERCIAL TANK:YES
REGULATED TANK:YES

TANK NUMBER: 2
ROOT TANK ID:
TANK STATUS:
INSTALLATION DATE:
PERM CLOSED:
CONTENTS: Gasoline, Gas Mix
CAPACITY IN GALLONS: 6000
TANK CONSTRUCTION:3
PIPE CONSTRUCTION:4
MAIN TANK:NO
COMPARTMENT TANK:NO
MANIFOLD TANK:
COMMERCIAL TANK:YES
REGULATED TANK:YES

TANK NUMBER: 3
ROOT TANK ID:
TANK STATUS:
INSTALLATION DATE:
PERM CLOSED:
CONTENTS: Gasoline, Gas Mix
CAPACITY IN GALLONS: 1000
TANK CONSTRUCTION:3

- Continued on next page -

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

UST

SEARCH ID: 4 **DIST/DIR:** 0.00 -- **ELEVATION:** 319 **MAP ID:** 1

NAME: RYAN S GROCERY
ADDRESS: 7939 RAY RD
SPRINGLAKE NC 28390
HARNETT
CONTACT: CHRISTINE RYAN
SOURCE: NCDENR

REV: 6/1/12
ID1: 0-026491
ID2: 00-0-0000026491
STATUS: TEMPORARILY CLOSED
PHONE:

PIPE CONSTRUCTION:4
MAIN TANK:NO
COMPARTMENT TANK:NO
MANIFOLD TANK:
COMMERCIAL TANK:NO
REGULATED TANK:YES

TANK NUMBER: 4
ROOT TANK ID:
TANK STATUS:
INSTALLATION DATE:
PERM CLOSED:
CONTENTS: Gasoline, Gas Mix
CAPACITY IN GALLONS: 1000
TANK CONSTRUCTION:3
PIPE CONSTRUCTION:4
MAIN TANK:NO
COMPARTMENT TANK:NO
MANIFOLD TANK:
COMMERCIAL TANK:NO
REGULATED TANK:YES

TANK NUMBER: 5
ROOT TANK ID:
TANK STATUS:
INSTALLATION DATE:
PERM CLOSED:
CONTENTS: Gasoline, Gas Mix
CAPACITY IN GALLONS: 500
TANK CONSTRUCTION:3
PIPE CONSTRUCTION:4
MAIN TANK:NO
COMPARTMENT TANK:NO
MANIFOLD TANK:
COMMERCIAL TANK:NO
REGULATED TANK:YES

ARCHIVED INFORMATION AS OF 2011

TANK NUMBER: 1
INSTALLATION DATE: 19841231
CLOSED DATE: 19931221
STATUS: PERMANENTLY CLOSED
CONTENTS: GASOLINE, GASOLINE MIXTURE
CAPACITY IN GALLONS: 6000
COMMENTS:
CONSTRUCTION MATERIAL: STEEL

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

UST

SEARCH ID: 4 **DIST/DIR:** 0.00 -- **ELEVATION:** 319 **MAP ID:** 1

NAME: RYAN S GROCERY
ADDRESS: 7939 RAY RD
SPRINGLAKE NC 28390
HARNETT
CONTACT: CHRISTINE RYAN
SOURCE: NCDENR

REV: 6/1/12
ID1: 0-026491
ID2: 00-0-0000026491
STATUS: TEMPORARILY CLOSED
PHONE:

INTERIOR: UNKNOWN
EXTERIOR: UNKNOWN
CORROSION PROTECTION:
LEAK DETECTION:
PIPING MATERIAL: STEEL
PIPE CORROSION PROTECTION:
PIPE LEAK DETECTION:
OVERFLOW PROTECTION:
FINANCIAL RESPONSIBILITY:
CERTIFICATION TYPE:
GPS SITING CONFIRMED:N
PERSON CONFIRMING:

TANK NUMBER: 2
INSTALLATION DATE: 19841231
CLOSED DATE: 19931221
STATUS: PERMANENTLY CLOSED
CONTENTS: GASOLINE, GASOLINE MIXTURE
CAPACITY IN GALLONS: 6000
COMMENTS:
CONSTRUCTION MATERIAL: STEEL
INTERIOR: UNKNOWN
EXTERIOR: UNKNOWN
CORROSION PROTECTION:
LEAK DETECTION:
PIPING MATERIAL: STEEL
PIPE CORROSION PROTECTION:
PIPE LEAK DETECTION:
OVERFLOW PROTECTION:
FINANCIAL RESPONSIBILITY:
CERTIFICATION TYPE:
GPS SITING CONFIRMED:N
PERSON CONFIRMING:

TANK NUMBER: 3
INSTALLATION DATE: 19701231
CLOSED DATE: 19931221
STATUS: PERMANENTLY CLOSED
CONTENTS: GASOLINE, GASOLINE MIXTURE
CAPACITY IN GALLONS: 1000
COMMENTS:
CONSTRUCTION MATERIAL: STEEL
INTERIOR: UNKNOWN
EXTERIOR: UNKNOWN
CORROSION PROTECTION:
LEAK DETECTION:
PIPING MATERIAL: STEEL

- More Details Exist For This Site; Max Page Limit Reached -

Environmental FirstSearch
Site Detail Report

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

UST

SEARCH ID: 5 **DIST/DIR:** 0.00 -- **ELEVATION:** 319 **MAP ID:** 1

NAME: RYAN S GROCERY
ADDRESS: 7939 RAY RD
SPRING LAKE NC 28390
HARNETT
CONTACT: CHRISTINE RYAN
SOURCE: NCDENR

REV: 6/1/12
ID1: FA-675
ID2:
STATUS: UNKNOWN
PHONE:

SITE INFORMATION

REGIONAL UST DATA

UST NUMBER:FA-675
INCIDENT NUMBER:12015
CD NUMBER:0
REEL NUMBER:0
REGIONAL CONTACT:JWB
REGIONAL OFFICE:FAY
DATE OCCURRED:12/21/1993

RESPONSIBLE COMPANY:

790 JOHN RYAN LANE
SPRING LAKE ,NC , 28390

SOURCE:LEAK, UST
PETROLEUM TYPE:PETROLEUM
COMMERCIAL/NONCOMMERCIAL:COMMERCIAL
REGULATED:REGULATED
REGULATORY REQUIREMENT:9/28/2001
VIOLATION:

PHASE REQUIRED:
SITE PRIORITY:085B
RISK:H
RISK OF INCIDENT:L
INTERMEDIATE CONDITION:
LAND USE:

CORRECTIVE ACTION PLAN:
RBCA:
CLOSED REVIEW REQUESTED:
CASE CLOSED:
CONTAMINATION:GROUNDWATER/BOTH
SUPPLY WELLS:
MTBE IN WELL:
MTBE IN GROUNDWATER:UNKNOWN

LEAK DISCOVERED:0
LAND USE RESTRICTION FILED:
CLEAN UP:12/21/1993
CURRENT STATUS:CURRENT RECORD

RBCA GROUNDWATER:
POLLUTANT TYPE:GASOLINE/DIESEL/KEROSENE
CD NUMBER:0
RESPONSIBLE OWNER:0

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

UST

SEARCH ID: 5 **DIST/DIR:** 0.00 -- **ELEVATION:** 319 **MAP ID:** 1

NAME:	RYAN S GROCERY	**REV:**	6/1/12
ADDRESS:	7939 RAY RD	**ID1:**	FA-675
	SPRING LAKE NC 28390	**ID2:**	
	HARNETT	**STATUS:**	UNKNOWN
CONTACT:	CHRISTINE RYAN	**PHONE:**	
SOURCE:	NCDENR		

RESPONSIBLE OPERATOR:0
RESPONSIBLE LANDOWNER:0
COMMENTS:

Environmental FirstSearch
Site Detail Report

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

LUST

SEARCH ID: 9 **DIST/DIR:** 0.00 -- **ELEVATION:** 319 **MAP ID:** 1

NAME:	RYAN S GROCERY	**REV:**	6/1/12
ADDRESS:	7939 RAY RD	**ID1:**	NCI-012015
	SPRING LAKE NC 28390	**ID2:**	12015
	HARNETT	**STATUS:**	RESPONSE
CONTACT:	CHRISTINE RYAN	**PHONE:**	
SOURCE:	NCDENR		

REGIONAL UST DATA

UST NUMBER:FA-675
INCIDENT NUMBER:12015
CD NUMBER:0
REEL NUMBER:0
REGIONAL CONTACT:JWB
REGIONAL OFFICE:FAY
DATE OCCURRED:12/21/1993

RESPONSIBLE COMPANY:

790 JOHN RYAN LANE
SPRING LAKE ,NC , 28390

SOURCE:LEAK, UST
PETROLEUM TYPE:PETROLEUM
COMMERCIAL/NONCOMMERCIAL:COMMERCIAL
REGULATED:REGULATED
REGULATORY REQUIREMENT:9/28/2001
VIOLATION:

PHASE REQUIRED:
SITE PRIORITY:085B
RISK:H
RISK OF INCIDENT:L
INTERMEDIATE CONDITION:
LAND USE:

CORRECTIVE ACTION PLAN:
RBCA:
CLOSED REVIEW REQUESTED:
CASE CLOSED:
CONTAMINATION:GROUNDWATER/BOTH
SUPPLY WELLS:
MTBE IN WELL:
MTBE IN GROUNDWATER:UNKNOWN

LEAK DISCOVERED:0
LAND USE RESTRICTION FILED:
CLEAN UP:12/21/1993
CURRENT STATUS:CURRENT RECORD

RBCA GROUNDWATER:
POLLUTANT TYPE:GASOLINE/DIESEL/KEROSENE
CD NUMBER:0
RESPONSIBLE OWNER:0
RESPONSIBLE OPERATOR:0
RESPONSIBLE LANDOWNER:0

Environmental FirstSearch
Site Detail Report

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

SPILLS

SEARCH ID: 1 **DIST/DIR:** 0.00 -- **ELEVATION:** 294 **MAP ID:** 2

NAME: DALTON HOLDER STORE
ADDRESS: 6701 RAY RD
SPRING LAKE NC 28390
HARNETT
CONTACT:
SOURCE: NCDENR

REV: 9/23/11
ID1: 17793
ID2: FA-934
STATUS: CURRENT RECORD
PHONE:

SITE INFORMATION

OWNER/OPERATOR: GORDON MASON

6701 RAY ROAD
SPRING LAKE NC 28390

DATE OF RELEASE: 8/28/1997
DATE SUBMITTED: 9/16/1997
DESCRIPTION OF INCIDENT: RECEIVED CLOSURE REPORT; SOIL ANALYTICAL RESULTS SHOWED TPH>10PPM FOR ALL SAMPLES COLLECTED AROUND TANKS; GROUNDWATER WAS NOT ENCOUNTERED DURING TK REMOVAL

CONTAMINATION INFORMATION
GROUNDWATER CONTAMINATED?: Y
MAJOR SOIL CONTAMINATION?: N

MATERIAL INVOLVED (1): GASOLINE
AMOUNT LOST (1):
AMOUNT RECOVERED (1): UNKNOWN

MATERIAL INVOLVED (2):
AMOUNT LOST (2):
AMOUNT RECOVERED (2):

MATERIAL INVOLVED (3):
AMOUNT LOST (3):
AMOUNT RECOVERED (3):

NUMBER OF WELLS AFFECTED: 0
NAME(S) OF CONTAMINATED WELLS:

PRIORITY INFORMATION:
RISK SITE?: U
SITE PRIORITY: 10E
PRIORITY CODE: E
PRIORITY UPDATE:

STATUS INFORMATION:
LAST MODIFIED:
INCIDENT PHASE: RESPONSE
NOV ISSUED:
NORR ISSUED:
45 DAY REPORT:
CORRECTIVE ACTION PLAN:
CLOSURE REQ DATE:
CLOSE-OUT REPORT:

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

UST

SEARCH ID: 7 **DIST/DIR:** 0.00 -- **ELEVATION:** 294 **MAP ID:** 2

NAME: DATON HOLDER
ADDRESS: 6701 RAY RD
SPRING LAKE NC 28390
HARNETT
CONTACT: GORDON A MASON
SOURCE: NCDENR

REV: 6/1/12
ID1: 0-017886
ID2: 00-0-0000017886
STATUS: PERM CLOSED REMOVED
PHONE:

SITE INFORMATION

TOTAL NUMBER OF TANKS: 3

CONTACT INFORMATION: GORDON A MASON
6701 B RAY RD
SPRING LAKE NC 28390

TANK NUMBER: 1
ROOT TANK ID:
TANK STATUS:
INSTALLATION DATE:
PERM CLOSED:
CONTENTS: Gasoline, Gas Mix
CAPACITY IN GALLONS: 3000
TANK CONSTRUCTION:3
PIPE CONSTRUCTION:4
MAIN TANK:NO
COMPARTMENT TANK:NO
MANIFOLD TANK:
COMMERCIAL TANK:YES
REGULATED TANK:YES

TANK NUMBER: 2
ROOT TANK ID:
TANK STATUS:
INSTALLATION DATE:
PERM CLOSED:
CONTENTS: Gasoline, Gas Mix
CAPACITY IN GALLONS: 3000
TANK CONSTRUCTION:3
PIPE CONSTRUCTION:4
MAIN TANK:NO
COMPARTMENT TANK:NO
MANIFOLD TANK:
COMMERCIAL TANK:YES
REGULATED TANK:YES

TANK NUMBER: 3
ROOT TANK ID:
TANK STATUS:
INSTALLATION DATE:
PERM CLOSED:
CONTENTS: Gasoline, Gas Mix
CAPACITY IN GALLONS: 3000
TANK CONSTRUCTION:3

- Continued on next page -

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

UST

SEARCH ID: 7 **DIST/DIR:** 0.00 -- **ELEVATION:** 294 **MAP ID:** 2

NAME: DATON HOLDER
ADDRESS: 6701 RAY RD
SPRING LAKE NC 28390
HARNETT
CONTACT: GORDON A MASON
SOURCE: NCDENR

REV: 6/1/12
ID1: 0-017886
ID2: 00-0-0000017886
STATUS: PERM CLOSED REMOVED
PHONE:

PIPE CONSTRUCTION:4
MAIN TANK:NO
COMPARTMENT TANK:NO
MANIFOLD TANK:
COMMERCIAL TANK:YES
REGULATED TANK:YES

REGIONAL UST DATA

UST NUMBER:FA-934
INCIDENT NUMBER:17793
CD NUMBER:0
REEL NUMBER:0
REGIONAL CONTACT:JWB
REGIONAL OFFICE:FAY
DATE OCCURRED:8/28/1997

RESPONSIBLE COMPANY:

6701 RAY ROAD
SPRING LAKE ,NC , 28390

SOURCE:LEAK, UST
PETROLEUM TYPE:PETROLEUM
COMMERCIAL/NONCOMMERCIAL:COMMERCIAL
REGULATED:REGULATED
REGULATORY REQUIREMENT:
VIOLATION:

PHASE REQUIRED:
SITE PRIORITY:
RISK:L
RISK OF INCIDENT:L
INTERMEDIATE CONDITION:
LAND USE:RES

CORRECTIVE ACTION PLAN:
RBCA:
CLOSED REVIEW REQUESTED:
CASE CLOSED:
CONTAMINATION:GROUNDWATER/BOTH
SUPPLY WELLS:0
MTBE IN WELL:0
MTBE IN GROUNDWATER:UNKNOWN

LEAK DISCOVERED:0
LAND USE RESTRICTION FILED:
CLEAN UP:8/27/1997
CURRENT STATUS:CURRENT RECORD

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

UST

SEARCH ID: 7 **DIST/DIR:** 0.00 -- **ELEVATION:** 294 **MAP ID:** 2

NAME: DATON HOLDER
ADDRESS: 6701 RAY RD
SPRING LAKE NC 28390
HARNETT
CONTACT: GORDON A MASON
SOURCE: NCDENR

REV: 6/1/12
ID1: 0-017886
ID2: 00-0-0000017886
STATUS: PERM CLOSED REMOVED
PHONE:

RBCA GROUNDWATER:
POLLUTANT TYPE:GASOLINE/DIESEL/KEROSENE
CD NUMBER:0
RESPONSIBLE OWNER:0
RESPONSIBLE OPERATOR:0
RESPONSIBLE LANDOWNER:0
COMMENTS:

ARCHIVED INFORMATION AS OF 2011

TANK NUMBER: 1
INSTALLATION DATE: 19740420
CLOSED DATE: 19970728
STATUS: PERMANENTLY CLOSED
CONTENTS: GASOLINE, GASOLINE MIXTURE
CAPACITY IN GALLONS: 3000
COMMENTS:
CONSTRUCTION MATERIAL: STEEL
INTERIOR: NONE
EXTERIOR: PAINT
CORROSION PROTECTION:
LEAK DETECTION:
PIPING MATERIAL: STEEL
PIPE CORROSION PROTECTION:
PIPE LEAK DETECTION:
OVERFLOW PROTECTION:
FINANCIAL RESPONSIBILITY:
CERTIFICATION TYPE:
GPS SITING CONFIRMED:N
PERSON CONFIRMING:

TANK NUMBER: 2
INSTALLATION DATE: 19740420
CLOSED DATE: 19970728
STATUS: PERMANENTLY CLOSED
CONTENTS: GASOLINE, GASOLINE MIXTURE
CAPACITY IN GALLONS: 3000
COMMENTS:
CONSTRUCTION MATERIAL: STEEL
INTERIOR: NONE
EXTERIOR: PAINT
CORROSION PROTECTION:
LEAK DETECTION:
PIPING MATERIAL: STEEL
PIPE CORROSION PROTECTION:
PIPE LEAK DETECTION:

- More Details Exist For This Site; Max Page Limit Reached -

Environmental FirstSearch
Site Detail Report

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

LUST

SEARCH ID: 8 **DIST/DIR:** 0.00 -- **ELEVATION:** 294 **MAP ID:** 2

NAME:	DALTON HOLDER STORE	**REV:**	6/1/12
ADDRESS:	6701 RAY RD	**ID1:**	NCI-017793
	SPRING LAKE NC 28390	**ID2:**	17793
	HARNETT	**STATUS:**	RESPONSE
CONTACT:	GORDON MASON	**PHONE:**	9104978229
SOURCE:	NCDENR		

REGIONAL UST DATA

UST NUMBER:FA-934
INCIDENT NUMBER:17793
CD NUMBER:0
REEL NUMBER:0
REGIONAL CONTACT:JWB
REGIONAL OFFICE:FAY
DATE OCCURRED:8/28/1997

RESPONSIBLE COMPANY:

6701 RAY ROAD
SPRING LAKE ,NC , 28390

SOURCE:LEAK, UST
PETROLEUM TYPE:PETROLEUM
COMMERCIAL/NONCOMMERCIAL:COMMERCIAL
REGULATED:REGULATED
REGULATORY REQUIREMENT:
VIOLATION:

PHASE REQUIRED:
SITE PRIORITY:
RISK:L
RISK OF INCIDENT:L
INTERMEDIATE CONDITION:
LAND USE:RES

CORRECTIVE ACTION PLAN:
RBCA:
CLOSED REVIEW REQUESTED:
CASE CLOSED:
CONTAMINATION:GROUNDWATER/BOTH
SUPPLY WELLS:0
MTBE IN WELL:0
MTBE IN GROUNDWATER:UNKNOWN

LEAK DISCOVERED:0
LAND USE RESTRICTION FILED:
CLEAN UP:8/27/1997
CURRENT STATUS:CURRENT RECORD

RBCA GROUNDWATER:
POLLUTANT TYPE:GASOLINE/DIESEL/KEROSENE
CD NUMBER:0
RESPONSIBLE OWNER:0
RESPONSIBLE OPERATOR:0
RESPONSIBLE LANDOWNER:0

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

SPILLS

SEARCH ID: 2 **DIST/DIR:** 0.00 -- **ELEVATION:** 226 **MAP ID:** 3

NAME: HOLDERS GROCERY
ADDRESS: UNKNOWN
SPRING LAKE NC 28390
HARNETT
CONTACT:
SOURCE: NCDENR

REV: 6/1/12
ID1: 85611
ID2: FA-85611
STATUS: CURRENT RECORD
PHONE:

SITE INFORMATION

OWNER/OPERATOR: HOPPER-PRESIDENT, RICK
H&H CABLE CONTRACTORS, INC.
1092 PONDEROSA ROAD
CAMERON 9194991130

DATE OF RELEASE: 6/4/2000
DATE SUBMITTED: 4/12/2001
DESCRIPTION OF INCIDENT:

CONTAMINATION INFORMATION
GROUNDWATER CONTAMINATED?: Y
MAJOR SOIL CONTAMINATION?:

MATERIAL INVOLVED (1):
AMOUNT LOST (1):
AMOUNT RECOVERED (1):

MATERIAL INVOLVED (2):
AMOUNT LOST (2):
AMOUNT RECOVERED (2):

MATERIAL INVOLVED (3):
AMOUNT LOST (3):
AMOUNT RECOVERED (3):

NUMBER OF WELLS AFFECTED: 0
NAME(S) OF CONTAMINATED WELLS:

PRIORITY INFORMATION:
RISK SITE?:
SITE PRIORITY:
PRIORITY CODE: B
PRIORITY UPDATE:

STATUS INFORMATION:
LAST MODIFIED: 5/9/2002
INCIDENT PHASE: ASSESSMENT
NOV ISSUED:
NORR ISSUED:
45 DAY REPORT:
CORRECTIVE ACTION PLAN: 5/9/2002
CLOSURE REQ DATE:
CLOSE-OUT REPORT:

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

UST

SEARCH ID: 3 **DIST/DIR:** 0.00 -- **ELEVATION:** 277 **MAP ID:** 4

NAME: MATTHEWS GENERAL STORE
ADDRESS: 7100 RAY RD
SPRING LAKE NC 28390
HARNETT
CONTACT: FOSTER . MATTHEWS
SOURCE: NCDENR

REV: 6/1/12
ID1: 0-002736
ID2: 00-0-0000002736
STATUS: CURRENTLY OPERATIONAL
PHONE:

SITE INFORMATION

TOTAL NUMBER OF TANKS: 3

CONTACT INFORMATION: FOSTER . MATTHEWS
1863 WILL LUCAS RD
LINDEN NC 28356-8523

TANK NUMBER: 001
ROOT TANK ID:
TANK STATUS:
INSTALLATION DATE:
PERM CLOSED:
CONTENTS: Gasoline, Gas Mix
CAPACITY IN GALLONS: 6000
TANK CONSTRUCTION:3
PIPE CONSTRUCTION:1
MAIN TANK:NO
COMPARTMENT TANK:NO
MANIFOLD TANK:NO
COMMERCIAL TANK:YES
REGULATED TANK:YES

TANK NUMBER: 002
ROOT TANK ID:
TANK STATUS:
INSTALLATION DATE:
PERM CLOSED:
CONTENTS: Gasoline, Gas Mix
CAPACITY IN GALLONS: 6000
TANK CONSTRUCTION:3
PIPE CONSTRUCTION:1
MAIN TANK:NO
COMPARTMENT TANK:NO
MANIFOLD TANK:NO
COMMERCIAL TANK:YES
REGULATED TANK:YES

TANK NUMBER: 003
ROOT TANK ID:
TANK STATUS:
INSTALLATION DATE:
PERM CLOSED:
CONTENTS: Gasoline, Gas Mix
CAPACITY IN GALLONS: 6000
TANK CONSTRUCTION:3

- Continued on next page -

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

UST

SEARCH ID: 3 **DIST/DIR:** 0.00 -- **ELEVATION:** 277 **MAP ID:** 4

NAME: MATTHEWS GENERAL STORE
ADDRESS: 7100 RAY RD
SPRING LAKE NC 28390
HARNETT
CONTACT: FOSTER . MATTHEWS
SOURCE: NCDENR

REV: 6/1/12
ID1: 0-002736
ID2: 00-0-0000002736
STATUS: CURRENTLY OPERATIONAL
PHONE:

PIPE CONSTRUCTION:1
MAIN TANK:NO
COMPARTMENT TANK:NO
MANIFOLD TANK:NO
COMMERCIAL TANK:YES
REGULATED TANK:YES

ARCHIVED INFORMATION AS OF 2011

TANK NUMBER: 001
INSTALLATION DATE: 19940504
CLOSED DATE:
STATUS: CURRENTLY OPERATIONAL
CONTENTS: GASOLINE, GASOLINE MIXTURE
CAPACITY IN GALLONS: 6000
COMMENTS:
CONSTRUCTION MATERIAL: STEEL
INTERIOR: UNKNOWN
EXTERIOR: UNKNOWN
CORROSION PROTECTION: IMPRESSED CURRENT
LEAK DETECTION:
PIPING MATERIAL: UNKNOWN
PIPE CORROSION PROTECTION: IMPRESSED CURRENT
PIPE LEAK DETECTION:
OVERFLOW PROTECTION: CATCHMENT BASIN
FINANCIAL RESPONSIBILITY:
CERTIFICATION TYPE:
GPS SITING CONFIRMED:Y
PERSON CONFIRMING:KCC

TANK NUMBER: 002
INSTALLATION DATE: 19940504
CLOSED DATE:
STATUS: CURRENTLY OPERATIONAL
CONTENTS: GASOLINE, GASOLINE MIXTURE
CAPACITY IN GALLONS: 6000
COMMENTS:
CONSTRUCTION MATERIAL: STEEL
INTERIOR: UNKNOWN
EXTERIOR: UNKNOWN
CORROSION PROTECTION: IMPRESSED CURRENT
LEAK DETECTION:
PIPING MATERIAL: UNKNOWN
PIPE CORROSION PROTECTION: IMPRESSED CURRENT
PIPE LEAK DETECTION:
OVERFLOW PROTECTION: CATCHMENT BASIN
FINANCIAL RESPONSIBILITY:

- Continued on next page -

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

UST

SEARCH ID: 3 **DIST/DIR:** 0.00 -- **ELEVATION:** 277 **MAP ID:** 4

NAME: MATTHEWS GENERAL STORE
ADDRESS: 7100 RAY RD
SPRING LAKE NC 28390
HARNETT
CONTACT: FOSTER . MATTHEWS
SOURCE: NCDENR

REV: 6/1/12
ID1: 0-002736
ID2: 00-0-0000002736
STATUS: CURRENTLY OPERATIONAL
PHONE:

CERTIFICATION TYPE:
GPS SITING CONFIRMED:Y
PERSON CONFIRMING:KCC

TANK NUMBER: 003
INSTALLATION DATE: 19940504
CLOSED DATE:
STATUS: CURRENTLY OPERATIONAL
CONTENTS: GASOLINE, GASOLINE MIXTURE
CAPACITY IN GALLONS: 6000
COMMENTS:
CONSTRUCTION MATERIAL: STEEL
INTERIOR: UNKNOWN
EXTERIOR: UNKNOWN
CORROSION PROTECTION: IMPRESSED CURRENT
LEAK DETECTION:
PIPING MATERIAL: UNKNOWN
PIPE CORROSION PROTECTION: IMPRESSED CURRENT
PIPE LEAK DETECTION:
OVERFLOW PROTECTION: CATCHMENT BASIN
FINANCIAL RESPONSIBILITY:
CERTIFICATION TYPE:
GPS SITING CONFIRMED:Y
PERSON CONFIRMING:KCC

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

UST

SEARCH ID: 6 **DIST/DIR:** 0.00 -- **ELEVATION:** 318 **MAP ID:** 5

NAME: SHORT STOP FOOD MARTS 8
ADDRESS: 7925 RAY RD
SPRING LAKE NC 28390
HARNETT
CONTACT: LI L THRIFT FOOD MARTS, INC.
SOURCE: NCDENR

REV: 6/1/12
ID1: 0-021508
ID2: 00-0-0000021508
STATUS: CURRENTLY OPERATIONAL
PHONE:

SITE INFORMATION

TOTAL NUMBER OF TANKS: 3

CONTACT INFORMATION: LI L THRIFT FOOD MARTS, INC.
1007 ARSENAL AVENUE
FAYETTEVILLE NC 28305-5329

TANK NUMBER: 1
ROOT TANK ID:
TANK STATUS:
INSTALLATION DATE:
PERM CLOSED:
CONTENTS: Gasoline, Gas Mix
CAPACITY IN GALLONS: 6000
TANK CONSTRUCTION:3
PIPE CONSTRUCTION:3
MAIN TANK:NO
COMPARTMENT TANK:NO
MANIFOLD TANK:NO
COMMERCIAL TANK:YES
REGULATED TANK:YES

TANK NUMBER: 2
ROOT TANK ID:
TANK STATUS:
INSTALLATION DATE:
PERM CLOSED:
CONTENTS: Gasoline, Gas Mix
CAPACITY IN GALLONS: 6000
TANK CONSTRUCTION:3
PIPE CONSTRUCTION:3
MAIN TANK:NO
COMPARTMENT TANK:NO
MANIFOLD TANK:NO
COMMERCIAL TANK:YES
REGULATED TANK:YES

TANK NUMBER: 3
ROOT TANK ID:
TANK STATUS:
INSTALLATION DATE:
PERM CLOSED:
CONTENTS: Gasoline, Gas Mix
CAPACITY IN GALLONS: 4000
TANK CONSTRUCTION:3

- Continued on next page -

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

UST

SEARCH ID: 6 **DIST/DIR:** 0.00 -- **ELEVATION:** 318 **MAP ID:** 5

NAME:	SHORT STOP FOOD MARTS 8	**REV:**	6/1/12
ADDRESS:	7925 RAY RD	**ID1:**	0-021508
	SPRING LAKE NC 28390	**ID2:**	00-0-0000021508
	HARNETT	**STATUS:**	CURRENTLY OPERATIONAL
CONTACT:	LI L THRIFT FOOD MARTS, INC.	**PHONE:**	
SOURCE:	NCDENR		

PIPE CONSTRUCTION:3
MAIN TANK:NO
COMPARTMENT TANK:NO
MANIFOLD TANK:NO
COMMERCIAL TANK:YES
REGULATED TANK:YES

ARCHIVED INFORMATION AS OF 2011

TANK NUMBER: 1
INSTALLATION DATE: 19731003
CLOSED DATE:
STATUS: CURRENTLY OPERATIONAL
CONTENTS: GASOLINE, GASOLINE MIXTURE
CAPACITY IN GALLONS: 6000
COMMENTS:
CONSTRUCTION MATERIAL: STEEL
INTERIOR: INTERNAL LINING
EXTERIOR: CATHODIC PROTECTION
CORROSION PROTECTION: INTERNAL LINING
LEAK DETECTION: PERIODIC TANK TIGHTNESS TESTING
PIPING MATERIAL: FRP
PIPE CORROSION PROTECTION: FRP TANK/PIPING
PIPE LEAK DETECTION: AUTOMATIC LINE LEAK DETECTORS
OVERFLOW PROTECTION: CATCHMENT BASIN
FINANCIAL RESPONSIBILITY:
CERTIFICATION TYPE:
GPS SITING CONFIRMED:Y
PERSON CONFIRMING:KCC

TANK NUMBER: 2
INSTALLATION DATE: 19731003
CLOSED DATE:
STATUS: CURRENTLY OPERATIONAL
CONTENTS: GASOLINE, GASOLINE MIXTURE
CAPACITY IN GALLONS: 6000
COMMENTS:
CONSTRUCTION MATERIAL: STEEL
INTERIOR: INTERNAL LINING
EXTERIOR: CATHODIC PROTECTION
CORROSION PROTECTION: INTERNAL LINING
LEAK DETECTION: PERIODIC TANK TIGHTNESS TESTING
PIPING MATERIAL: FRP
PIPE CORROSION PROTECTION: FRP TANK/PIPING
PIPE LEAK DETECTION: AUTOMATIC LINE LEAK DETECTORS
OVERFLOW PROTECTION: CATCHMENT BASIN
FINANCIAL RESPONSIBILITY:

- Continued on next page -

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

UST

SEARCH ID: 6 **DIST/DIR:** 0.00 -- **ELEVATION:** 318 **MAP ID:** 5

NAME: SHORT STOP FOOD MARTS 8
ADDRESS: 7925 RAY RD
SPRING LAKE NC 28390
HARNETT
CONTACT: LI L THRIFT FOOD MARTS, INC.
SOURCE: NCDENR

REV: 6/1/12
ID1: 0-021508
ID2: 00-0-0000021508
STATUS: CURRENTLY OPERATIONAL
PHONE:

CERTIFICATION TYPE:
GPS SITING CONFIRMED:Y
PERSON CONFIRMING:KCC

TANK NUMBER: 3
INSTALLATION DATE: 19861001
CLOSED DATE:
STATUS: CURRENTLY OPERATIONAL
CONTENTS: GASOLINE, GASOLINE MIXTURE
CAPACITY IN GALLONS: 4000
COMMENTS:
CONSTRUCTION MATERIAL: STEEL
INTERIOR: INTERNAL LINING
EXTERIOR: CATHODIC PROTECTION
CORROSION PROTECTION: INTERNAL LINING
LEAK DETECTION: PERIODIC TANK TIGHTNESS TESTING
PIPING MATERIAL: FRP
PIPE CORROSION PROTECTION: FRP TANK/PIPING
PIPE LEAK DETECTION: AUTOMATIC LINE LEAK DETECTORS
OVERFLOW PROTECTION: CATCHMENT BASIN
FINANCIAL RESPONSIBILITY:
CERTIFICATION TYPE:
GPS SITING CONFIRMED:Y
PERSON CONFIRMING:KCC

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

LUST

SEARCH ID: 10 **DIST/DIR:** 0.11 SW **ELEVATION:** 266 **MAP ID:** 6

NAME:	HOLDERS GROCERY	**REV:**	10/1/01
ADDRESS:	1899 RAY RD	**ID1:**	NCI-085611
	SPRING LAKE NC	**ID2:**	
	HARNETT	**STATUS:**	ASSESSMENT
CONTACT:	RICK HOPPER-PRESIDENT	**PHONE:**	9194991130
SOURCE:			

OWNER/OPERATOR: RICK HOPPER-PRESIDENT
H&H CABLE CONTRACTORS, INC.
1092 PONDEROSA ROAD
CAMERON NORT 28326

DATE OF RELEASE: 6/4/2000
DATE SUBMITTED: 4/12/2001
DESCRIPTION OF INCIDENT:

CONTAMINATION INFORMATION
GROUNDWATER CONTAMINATED?: Y
MAJOR SOIL CONTAMINATION?:

MATERIAL INVOLVED (1):
AMOUNT LOST (1):
AMOUNT RECOVERED (1):

MATERIAL INVOLVED (2):
AMOUNT LOST (2):
AMOUNT RECOVERED (2):

MATERIAL INVOLVED (3):
AMOUNT LOST (3):
AMOUNT RECOVERED (3):

NUMBER OF WELLS AFFECTED: 0
NAME(S) OF CONTAMINATED WELLS:

PRIORITY INFORMATION:
RISK SITE?:
SITE PRIORITY: 160
PRIORITY CODE: B
PRIORITY UPDATE:

STATUS INFORMATION:
LAST MODIFIED:
INCIDENT PHASE: ASSESSMENT
NOV ISSUED:
NORR ISSUED:
45 DAY REPORT:
CORRECTIVE ACTION PLAN: 5/9/2002
CLOSURE REQ DATE:
CLOSE-OUT REPORT:

Environmental FirstSearch
Site Detail Report

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

LUST

SEARCH ID: 11 **DIST/DIR:** 0.27 SE **ELEVATION:** 217 **MAP ID:** 7

NAME: LEWIS OIL CO.
ADDRESS: 0 HIGHWAY 210
MANCHESTER NC
HARNETT
CONTACT:
SOURCE:

REV: 10/1/01
ID1: NCI-005466
ID2:
STATUS:
PHONE:

OWNER/OPERATOR:

DATE OF RELEASE:
DATE SUBMITTED: 3/12/1990
DESCRIPTION OF INCIDENT:

CONTAMINATION INFORMATION
GROUNDWATER CONTAMINATED?: NOD
MAJOR SOIL CONTAMINATION?:

MATERIAL INVOLVED (1):
AMOUNT LOST (1):
AMOUNT RECOVERED (1):

MATERIAL INVOLVED (2):
AMOUNT LOST (2):
AMOUNT RECOVERED (2):

MATERIAL INVOLVED (3):
AMOUNT LOST (3):
AMOUNT RECOVERED (3):

NUMBER OF WELLS AFFECTED: 0
NAME(S) OF CONTAMINATED WELLS:

PRIORITY INFORMATION:
RISK SITE?:
SITE PRIORITY: 0
PRIORITY CODE: E
PRIORITY UPDATE:

STATUS INFORMATION:
LAST MODIFIED:
INCIDENT PHASE:
NOV ISSUED:
NORR ISSUED:
45 DAY REPORT:
CORRECTIVE ACTION PLAN:
CLOSURE REQ DATE:
CLOSE-OUT REPORT:

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

LUST

SEARCH ID: 12 **DIST/DIR:** 0.38 SE **ELEVATION:** 160 **MAP ID:** 8

NAME:	LEWIS OIL GROCERY STORE	**REV:**	6/1/12
ADDRESS:	0 NC 210 & SR 1600	**ID1:**	NCI-014732
	SPRING LAKE NC 28390	**ID2:**	14732
	CUMBERLAND	**STATUS:**	RESPONSE
CONTACT:	STEWART LEWIS	**PHONE:**	
SOURCE:	NCDENR		

REGIONAL UST DATA

UST NUMBER:FA-797
INCIDENT NUMBER:14732
CD NUMBER:0
REEL NUMBER:0
REGIONAL CONTACT:JWB
REGIONAL OFFICE:FAY
DATE OCCURRED:10/18/1995

RESPONSIBLE COMPANY:

STUART LEWIS OIL CO.
HWY 210 N.
SPRING LAKE ,NC , 28390

SOURCE:LEAK, UST
PETROLEUM TYPE:PETROLEUM
COMMERCIAL/NONCOMMERCIAL:COMMERCIAL
REGULATED:REGULATED
REGULATORY REQUIREMENT:
VIOLATION:

PHASE REQUIRED:
SITE PRIORITY:090B
RISK:H
RISK OF INCIDENT:L
INTERMEDIATE CONDITION:
LAND USE:

CORRECTIVE ACTION PLAN:
RBCA:
CLOSED REVIEW REQUESTED:
CASE CLOSED:
CONTAMINATION:GROUNDWATER/BOTH
SUPPLY WELLS:
MTBE IN WELL:
MTBE IN GROUNDWATER:UNKNOWN

LEAK DISCOVERED:0
LAND USE RESTRICTION FILED:
CLEAN UP:10/18/1995
CURRENT STATUS:CURRENT RECORD

RBCA GROUNDWATER:
POLLUTANT TYPE:GASOLINE/DIESEL/KEROSENE
CD NUMBER:0
RESPONSIBLE OWNER:0
RESPONSIBLE OPERATOR:0
RESPONSIBLE LANDOWNER:0

Environmental FirstSearch Descriptions

NPL: EPA NATIONAL PRIORITY LIST - The National Priorities List is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money. A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.FINAL - Currently on the Final NPLPROPOSED - Proposed for NPL

NPL DELISTED: EPA NATIONAL PRIORITY LIST Subset - Database of delisted NPL sites. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.DELISTED - Deleted from the Final NPL

CERCLIS: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS)- CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.PART OF NPL- Site is part of NPL siteDELETED - Deleted from the Final NPLFINAL - Currently on the Final NPLNOT PROPOSED - Not on the NPLNOT VALID - Not Valid Site or IncidentPROPOSED - Proposed for NPLREMOVED - Removed from Proposed NPLSCAN PLAN - Pre-proposal SiteWITHDRAWN - Withdrawn

NFRAP: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.NFRAP – No Further Remedial Action PlanP - Site is part of NPL siteD - Deleted from the Final NPLF - Currently on the Final NPLN - Not on the NPLO - Not Valid Site or IncidentP - Proposed for NPLR - Removed from Proposed NPLS - Pre-proposal SiteW – Withdrawn

RCRA COR ACT: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.RCRAInfo facilities that have reported violations and subject to corrective actions.

RCRA TSD: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM TREATMENT, STORAGE, and DISPOSAL FACILITIES. - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.Facilities that treat, store, dispose, or incinerate hazardous waste.

RCRA GEN: EPA/MA DEP/CT DEP RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM GENERATORS - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.Facilities that generate or transport hazardous waste or meet other RCRA requirements.LGN - Large Quantity GeneratorsSGN - Small Quantity GeneratorsVGN – Conditionally Exempt Generator.Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities. CONNECTICUT HAZARDOUS WASTE MANIFEST – Database of all shipments of hazardous waste within, into or from Connecticut. The data includes date of shipment, transporter and TSD info, and material shipped and quantity. This data is appended to the details of existing generator records. MASSACHUSETTES HAZARDOUS WASTE GENERATOR – database of generators that are regulated under the MA DEP. VQN-MA = generates less than 220 pounds or 27 gallons per month of hazardous waste or waste oil.SQN-MA = generates 220 to 2,200 pounds or 27 to 270 gallons per month of waste oil.LQG-MA = generates greater than 2,200 lbs of hazardous waste or waste oil per month.

Fed Brownfield: EPA BROWNFIELD MANAGEMENT SYSTEM (BMS) - database designed to assist EPA in collecting, tracking, and updating information, as well as reporting on the major activities and accomplishments of the various Brownfield grant Programs./n CLEANUPS IN MY COMMUNITY (subset) - Sites, facilities and properties that have been contaminated by hazardous materials and are being, or have been, cleaned up under EPA's brownfield's program.

ERNS: EPA/NRC EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) - Database of incidents reported to the National Response Center. These incidents include chemical spills, accidents involving chemicals (such as fires or explosions), oil spills, transportation accidents that involve oil or chemicals, releases of radioactive materials, sightings of oil sheens on bodies of water, terrorist incidents involving chemicals, incidents where illegally dumped chemicals have been found, and drills intended to prepare responders to handle these kinds of incidents. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

Tribal Lands: DOI/BIA INDIAN LANDS OF THE UNITED STATES - Database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered part of the reservation.BUREAU OF INDIAN AFFIARS CONTACT - Regional contact information for the Bureau of Indian Affairs offices.

State/Tribal Sites: NCDENR STATE INACTIVE HAZARDOUS SITES LIST - database of sites and Facilities that are being investigated due to reported releases of Hazardous substances. Included within this Inactive Hazardous Waste Sites Inventory database are the following classifications: Inactive Hazardous Waste Sites (IHS), No Further Action Sites (NFA), Duplicate Sites (DS), Inactive Hazardous Waste Sites Priority List Sites (SPL)

State Spills 90: NCDENR INCIDENT MANAGEMENT DATA (UST and Groundwater) - database of possible releases/spills of contaminants. The data includes media effected, material released, source and site priority.

State/Tribal SWL: NCDENR ALL PERMITTED SOLID WASTE FACILITIES - database of C&D Landfill, Compost, House Hold Hazardous Waste landfill, Incinerator (Industrial) Landfill, Incinerator (Medical) Landfill, Industrial Landfill, Land Clearing and Inert Debris Landfill, Mixed Waste Processing Landfill, Municipal Solid Waste Landfill, Tire Treatment and Processing Landfill, and Transfer and Processing Stations.

State/Tribal LUST: NCDENR INCIDENT MANAGEMENT DATA (UST and Groundwater) - database of leaking underground storage tanks. This database is a subset of the Incident Management Data (UST and Groundwater) where the source is a leaking ust. This data is concerned with petroleum storage systems and includes facilities and/or locations that have reported the possible release of contaminants. This database also includes State Spill Sites. REGIONAL UST DATABASE (SUBSET) - database of information obtained from the Regional Offices in which an incident has occurred. It provides a more detailed explanation of current and historic activity for individual sites, as well as what was previously found in the Incident Management Database.

State/Tribal UST/AST: NCDENR/EPA REGISTERED TANKS and FACILITY DATABASE - database of underground storage tanks registered with the North Carolina Department of Environment and Natural Resources. Inclusion on this list indicates the presence of underground petroleum storage tanks and therefore the potential for environmental problems. It does not necessarily indicate existing problems.TRIBAL LAND UNDERGROUND STORAGE TANKS - database of underground storage tanks that are reported to be on Native American lands.REGIONAL UST DATABASE - database of information obtained from the Regional Offices. It provides a more detailed explanation of current and historic activity for individual sites, as well as what was previously found in the Incident Management Database.

State/Tribal IC: NCDENR STATE INACTIVE HAZARDOUS SITES LIST SUBSET - database of sites and Facilities that have land use restrictions and are being investigated due to reported releases of Hazardous substances. Included within this Inactive Hazardous Waste Sites Inventory database are the following classifications: Inactive Hazardous Waste Sites (IHS), No Further Action Sites (NFA), Duplicate Sites (DS), Inactive Hazardous Waste Sites Priority List Sites (SPL)

State/Tribal VCP: NCDENR STATE INACTIVE HAZARDOUS SITES LIST SUBSET- database of sites and Facilities that are being investigated due to reported releases of Hazardous substances and have a voluntary cleanup aggreement. Included within this Inactive Hazardous Waste Sites Inventory database are the following classifications: Inactive Hazardous Waste Sites (IHS), No Further Action Sites (NFA), Duplicate Sites (DS), Inactive Hazardous Waste Sites Priority List Sites (SPL)

State/Tribal Brownfields: NCDENR BROWNFIELD PROJECTS INVENTORY - database of Active Eligible Sites, Projects Pending Eligibility, and Finalized Brownfields Agreements.

Federal IC / EC: EPA FEDERAL ENGINEERING AND INSTITUTIONAL CONTROLS- Superfund sites that have either an engineering or an institutional control. The data includes the control and the media contaminated. RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES (RCRA) – RCRA site the have institutional controls.

Environmental FirstSearch Database Sources

NPL: EPA Environmental Protection Agency

Updated quarterly

NPL DELISTED: EPA Environmental Protection Agency

Updated quarterly

CERCLIS: EPA Environmental Protection Agency

Updated quarterly

NFRAP: EPA Environmental Protection Agency.

Updated quarterly

RCRA COR ACT: EPA Environmental Protection Agency.

Updated quarterly

RCRA TSD: EPA Environmental Protection Agency.

Updated quarterly

RCRA GEN: EPA/MA DEP/CT DEP Environmental Protection Agency, Massachusetts Department of Environmental Protection, Connecticut Department of Environmental Protection

Updated quarterly

Fed Brownfield: EPA Environmental Protection Agency

Updated quarterly

ERNS: EPA/NRC Environmental Protection AgencyNational Response Center.

Updated annually

Tribal Lands: DOI/BIA United States Department of the InteriorBureau of Indian Affairs

Updated annually

State/Tribal Sites: NCDENR North Carolina Department of Environment and Natural Resources, Division of Waste Management

Updated quarterly

State Spills 90: NCDENR North Carolina Department of Environment and Natural Resources, Division of Water Quality/Groundwater Section

Updated quarterly

State/Tribal SWL: NCDENR North Carolina Department of Environment and Natural Resources, Division of Waste Management

Updated annually

State/Tribal LUST: NCDENR North Carolina Department of Environment and Natural Resources, Division of Water Quality/Groundwater Section

Updated quarterly

State/Tribal UST/AST: NCDENR/EPA North Carolina Department of Environment and Natural Resources, Division of Waste ManagementEnvironmental Protection Agency

Updated quarterly

State/Tribal IC: NCDENR North Carolina Department of Environment and Natural Resources, Division of Waste Management

Updated quarterly

State/Tribal VCP: NCDENR North Carolina Department of Environment and Natural Resources, Division of Waste Management

Updated quarterly

State/Tribal Brownfields: NCDENR North Carolina Department of Environment and Natural Resources

Updated quarterly

Federal IC / EC: EPA Environmental Protection Agency

Updated quarterly

Environmental FirstSearch
Street Name Report for Streets within .25 Mile(s) of Target Property

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

Street Name	Dist/Dir	Street Name	Dist/Dir
Alan Parker Cir	0.19 NE	Leeks Ln	0.25 SE
Andrew Cox Ln	0.00--	Leopard Ln	0.01 NW
Appaloosa Dr	0.25 SE	Little M Dr	0.00--
Aspen Ave	0.04 NW	Loblolly	0.19 NW
Astor Pl	0.05 NW	Lous Chapel Rd	0.00--
Austin Ave	0.24 SE	Lynx Ln	0.08 NW
Azalea Dr	0.00--	Mckay Dr	0.00--
Balsom Pl	0.09 NW	Mcneil Cemetery Rd	0.00--
Bluegill Ln	0.00--	Misty Cove Ln	0.00--
Burro Ln	0.03 SE	Narcissus Pl	0.03 NW
Burro Rd	0.03 SE	Narcissys	0.02 NW
Camellia Ln	0.00--	Nc Highway 210 S	0.00--
Canopy Ln	0.07 SW	Northpoint Cir	0.05 NE
Capital Dr	0.25 SE	Oakdale Dr	0.02 NW
Capitol Dr	0.22 SE	Old Farms Maple St	0.14 NW
Carnation Cir	0.25 NE	Orchid	0.13 NE
Cedar Dr	0.25 NE	Orchid Dr	0.13 NE
Chestnutt	0.21 NW	Pansey Cir	0.08 NE
Citron Pl	0.08 NW	Pansy Cir	0.08 NE
Clove Ln	0.09 NW	Panther Ln	0.05 NW
Connie Ct	0.14 NE	Peonie Pl	0.21 NW
Cooper Ave	0.00--	Pete Mason Dr	0.14 NW
Creeksville Church Rd	0.09 SE	Pinecrest Dr	0.06 NE
Daffodil Pl	0.09 NW	Primrose	0.21 NW
Daisy Cir	0.1 NE	Primrose St	0.14 NW
Dandelion Pl	0.13 NW	Pvt Rd	0.00--
Dogwood Dr	0.16 NW	Rachel Rd	0.03 SE
Dove Ridge Ln	0.18 NE	Ray Rd	0.00--
E Northpoint St	0.00--	Rolling Springs Dr	0.00--
Elm St	0.22 NW	Rosebud St	0.1 NE
Elma Black Ln	0.09 NW	Ruby Clara Ln	0.00--
Erica Ln	0.18 SE	S and S Ln	0.00--
Eugene Ln	0.03 NE	Sandclay Rd	0.00--
FROM NC 210 TO SR 1120	0.00--	Secondary Road 1121	0.00--
Gardenia Cir	0.16 NE	Secondary Road 1122	0.00--
Gena Ln	0.17 NW	Secondary Road 1123	0.09 SE
Gerber Ln	0.00--	Secondary Road 1142 Rd	0.00--
Gordon Ln	0.01 NW	Secondary Road 1151	0.22 SE
Helen Matthews Dr	0.00--	Secondary Road 1160	0.00--
Holly St	0.18 NW	Secondary Road 1161	0.1 NE
Honey Dr	0.14 NW	Secondary Road 1162	0.00--
Jde St	0.00--	Secondary Road 1163	0.08 NE
Jeff St	0.13 NE	Secondary Road 1165	0.25 NE
John Ryan Ln	0.00--	Secondary Road 1166	0.25 NE
Killdeer Dr	0.16 NW	Secondary Road 2051	0.03 SE
Killdeer Ln	0.00--	Shady Dr	0.04 NE
Lake Ave	0.00--	Slate Dr	0.15 NW
Lakeview Dr	0.22 SE	Sring Valley Dr	0.15 NW

Environmental FirstSearch
Street Name Report for Streets within .25 Mile(s) of Target Property

Target Property: SR 1121 - NC 210 - SR 1120
SPRING LAKE, NC 28390

JOB: 2012-228

Street Name	Dist/Dir	Street Name	Dist/Dir
Stallion Ln	0.00--		
State Hwy 210	0.00--		
Stone Cross Dr	0.07 NE		
Sweet Ln	0.11 NW		
Tommy Dr	0.00--		
Tommys Dr	0.00--		
Twin Lake Rd	0.00--		
W Northpoint Rd	0.00--		
Ward Ln	0.15 NE		
Wedgewood Dr	0.01 NE		
White Pine Pl	0.02 NW		
Woodbridge Dr	0.25 NE		
Zena Ln	0.1 NW		

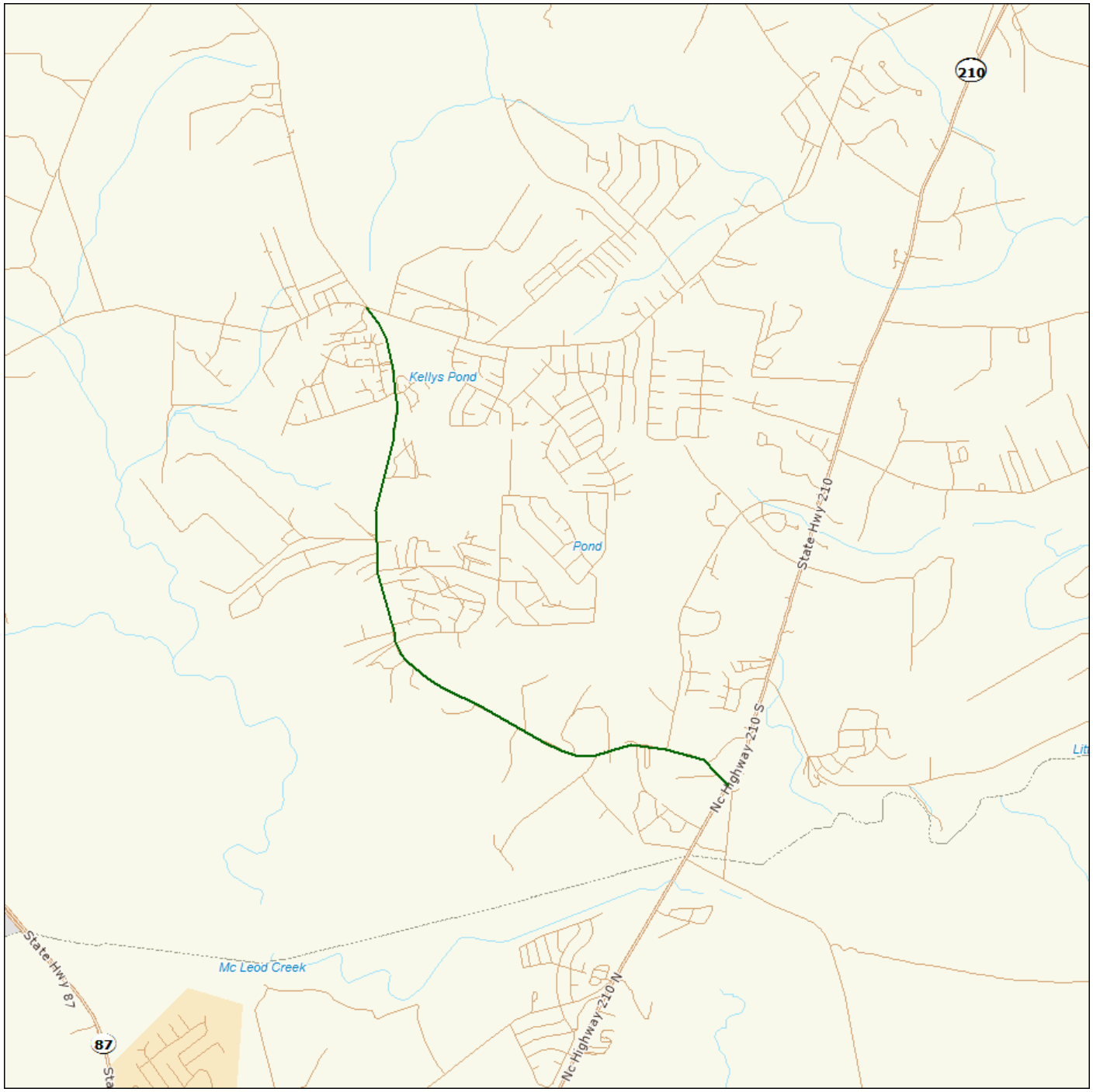
Environmental FirstSearch

1 Mile Radius from Line

ASTM Map: NPL, RCRACOR, STATE Sites

FIRSTSEARCH

SR 1121 - NC 210 - SR 1120 , SPRING LAKE, NC 28390



Source: Tele Atlas

Linear Search Line .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

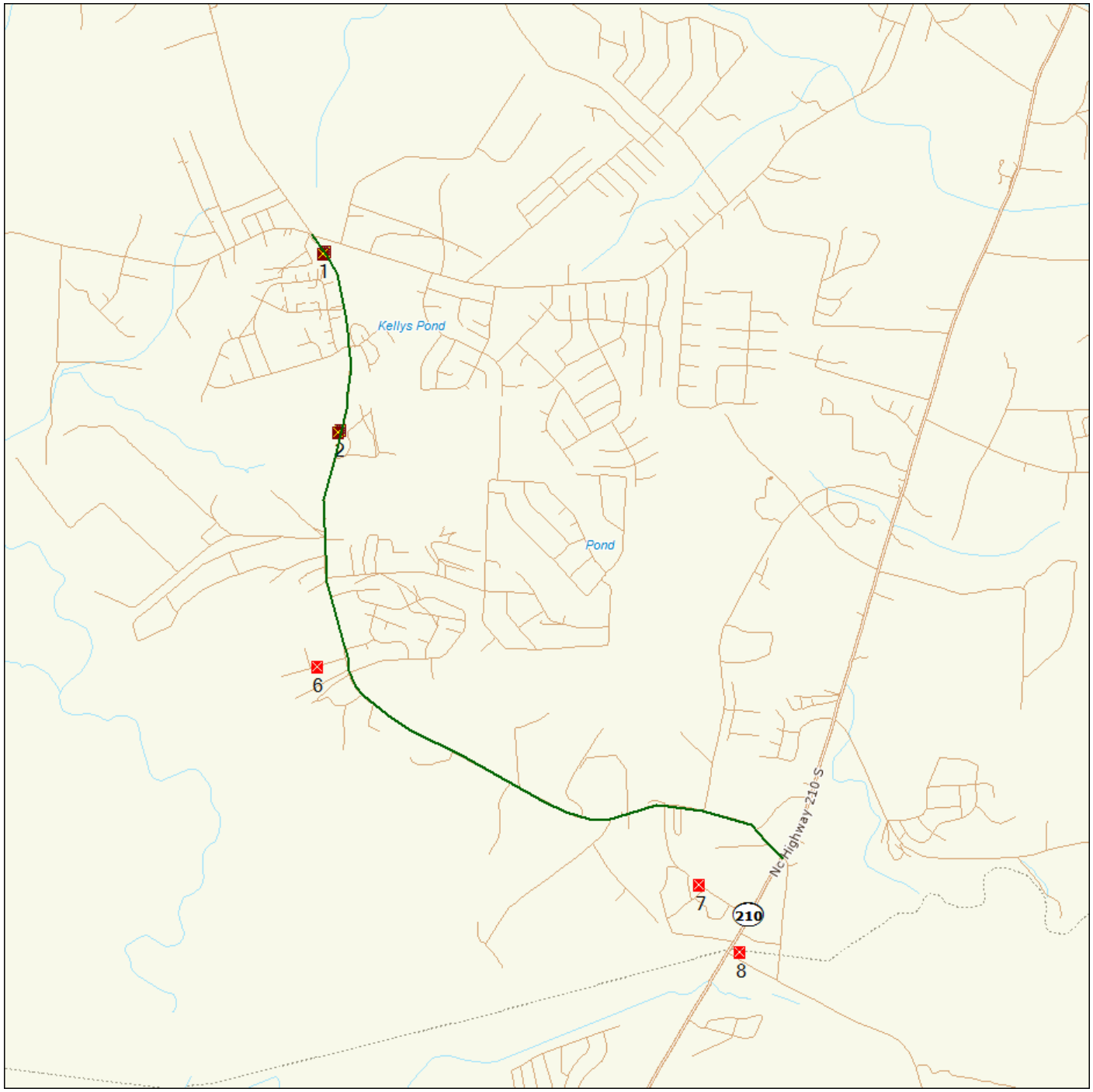
Environmental FirstSearch

.5 Mile Radius from Line

ASTM Map: CERCLIS, RCRATSD, LUST, SWL

FIRSTSEARCH

SR 1121 - NC 210 - SR 1120 , SPRING LAKE, NC 28390



Source: Tele Atlas

Linear Search Line .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

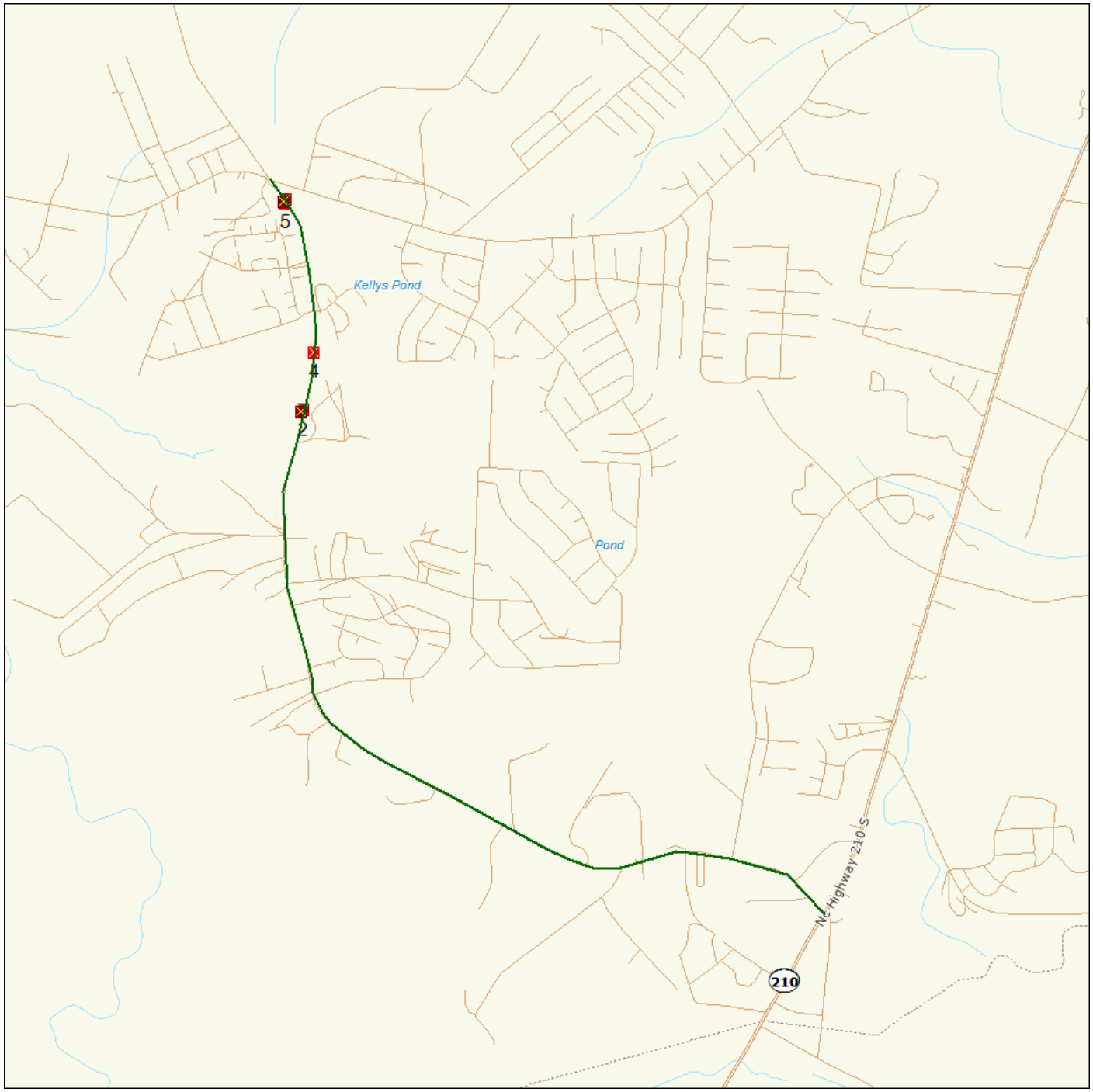
Environmental FirstSearch

.25 Mile Radius from Line

ASTM Map: RCRAGEN, ERNS, UST, FED IC/EC, METH LABS

FIRSTSEARCH

SR 1121 - NC 210 - SR 1120 , SPRING LAKE, NC 28390



Source: Tele Atlas

Linear Search Line .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

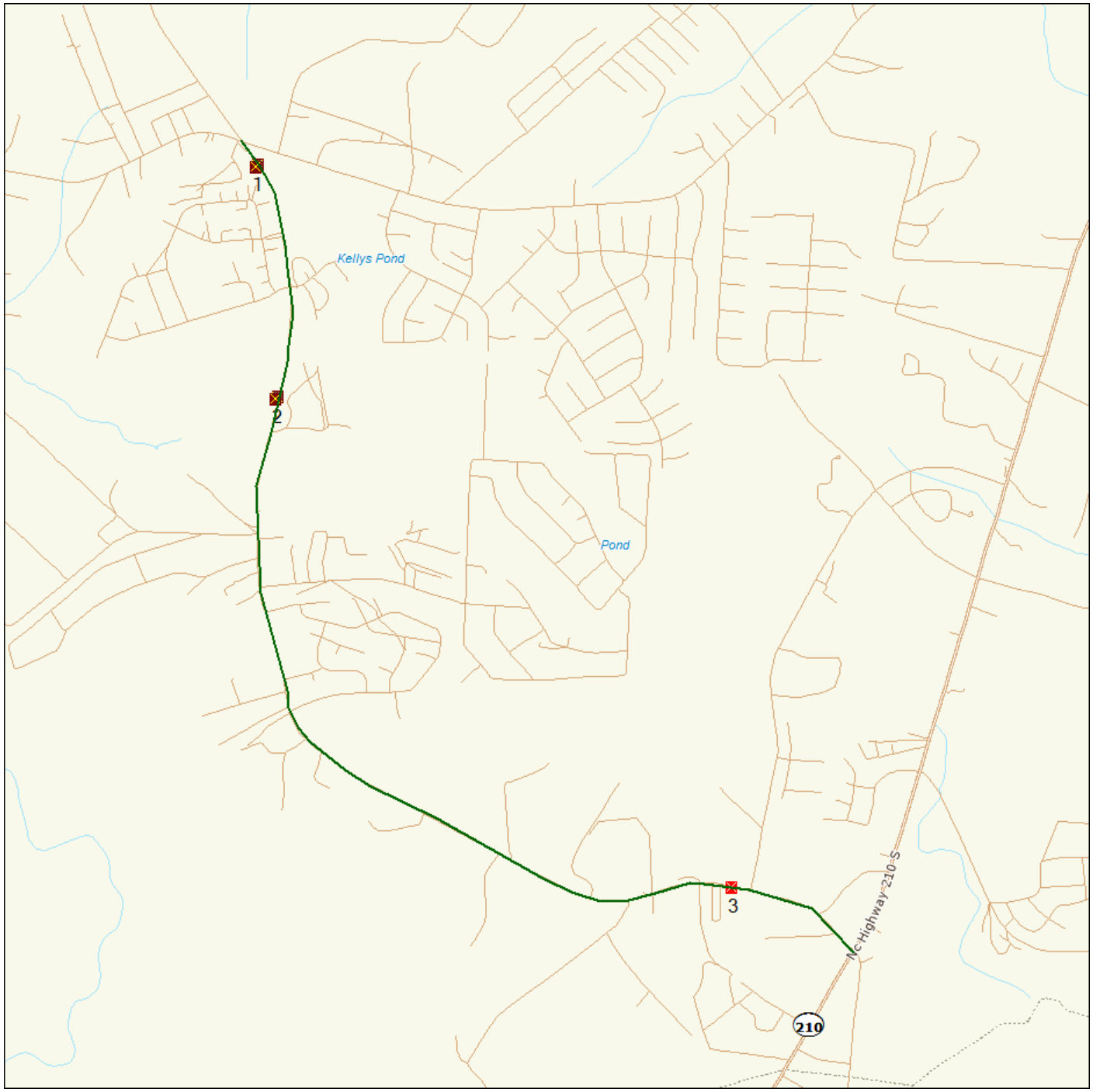
Environmental FirstSearch

.12 Mile Radius from Line

Non-ASTM Map: Spills 90

FIRSTSEARCH

SR 1121 - NC 210 - SR 1120 , SPRING LAKE, NC 28390



Source: Tele Atlas

Linear Search Line .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

National Historic Sites and Landmark Sites .....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

APPENDIX C

Pyramid Project # 2012-228

GEOPHYSICAL INVESTIGATION REPORT

EM61 & GPR SURVEYS

NCDOT ROW PROJECT
GENERAL STORE, 2340 RAY ROAD, SPRING LAKE, NC (PARCEL 019)
NCDOT Project U-3465 (39017.1.1)
Harnett County, North Carolina

October 11, 2012

Report prepared for: **Mr. Gordon Box**
North Carolina Department of Transportation
GeoEnvironmental Project Manager
Geotechnical Engineering Unit
GeoEnvironmental Section
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

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NCDOT Contract 6300031965

NC Board for Licensing of Geologists C-257
NC Board of Examiners for Engineers & Surveyors C-1251

NCDOT – Geotechnical Engineering Unit
NCDOT ROW PROJECT
GENERAL STORE, 2340 RAY ROAD, SPRING LAKE, NC (PARCEL 019)
NCDOT Project U-3465 (39017.1.1)
Harnett County, North Carolina

TABLE OF CONTENTS PAGE

FIGURES

1.0 INTRODUCTION

Pyramid Environmental & Engineering, PC (Pyramid) conducted a geophysical investigation for the North Carolina Department of Transportation (NCDOT) across the proposed right-of way (ROW) and easement areas of the Matthews General Store (Parcel 019) located at 2340 Ray Road, Spring Lake, NC. The survey area, as directed by the NCDOT, spanned from approximately 15 feet south of the former convenience store building to approximately 45 feet north of the building, and extended from Ray Road to the east approximately 70 feet. Conducted on September 5 and 6, 2012, the geophysical investigation was performed as part of the North Carolina Department of Transportation (NCDOT) ROW expansion project to determine if metallic underground storage tanks (USTs) were present beneath the proposed ROW and easements areas of the site.

The area of the site surveyed was predominantly a concrete and asphalt parking lot, with some open grassy area to the north of the building. The geophysical survey area had a maximum width (east/west) of approximately 70 feet and a maximum length (north/south) of approximately 120 feet. Photographs of the site are shown in **Figure 1**.

2.0 FIELD METHODOLOGY

Prior to conducting the geophysical investigation, a 10-foot by 10-foot survey grid was established across the geophysical survey area using measuring tapes and water-based marking paint. These grid marks were used as X-Y coordinates for location control when collecting the geophysical data and establishing base maps for the geophysical results.

The geophysical investigation consisted of electromagnetic (EM) induction-metal detection surveys and ground penetrating radar (GPR) surveys. The EM survey was performed on September 5, 2012, using a Geonics EM61-MK2 metal detection instrument. According to the instrument specifications, the EM61 can detect a metal drum down to a maximum depth of approximately 8 feet. Smaller objects (1-foot or less in size) can be detected to a maximum depth of 4 to 5 feet. All of the EM61 data were digitally collected at approximately 0.8 foot intervals along north-south trending, parallel

survey lines spaced five feet apart. All of the data were downloaded to a computer and reviewed in the field and office using the Geonics DAT61MK2 and Surfer for Windows Version 7.0 software programs.

GPR data were acquired on September 6, 2012, across selected EM61 differential anomalies using a GSSI SIR-3000 unit equipped with a 400 MHz antenna. Data were collected generally from east to west and north to south across specific EM61 anomalies. All of the GPR data were viewed in real time using a vertical scan of 512 samples, at a rate of 48 scans per second. GPR data were viewed down to a maximum depth of approximately 8 feet, based on an estimated two-way travel time of 8 nanoseconds per foot. Specific GPR transects across probable or confirmed USTs were saved to the hard drive and analyzed further upon completion of the field work.

Preliminary geophysical results were emailed to Gordon Box on September 28, 2012.

3.0 DISCUSSION OF RESULTS

Contour plots of the EM61 bottom coil and differential results obtained across the proposed ROW and easement areas at the property are presented in **Figures 2 and 3,** respectively. The bottom coil results represent the most sensitive component of the EM61 instrument and detect metal objects regardless of size. The bottom coil response can be used to delineate metal conduits or utility lines, small, isolated metal objects, and areas containing insignificant metal debris. The differential results are obtained from the difference between the top and bottom coils of the EM61 instrument. The differential results focus on the larger metal objects such as drum and UST-size objects and ignore the smaller insignificant metal objects.

The bottom coil rectangular minor (bottom coil) EM61 anomaly located between coordinates X=20 to 40 and Y=200 to 230 is the result of a concrete curb/median at this location likely containing metal reinforcement. The minor EM61 anomalies centered at coordinates X=40, Y=270 and at X=25, Y=283 are likely the result of isolated zones of buried metallic debris. The high amplitude EM61 anomaly at coordinates X=40, Y=280 is a result of the Pepsi sign at this location. The high

amplitude anomalies along the eastern boundary of the survey area between Y=260 and Y=280 are the result of the metal carport. The high amplitude EM61 response surrounding the gas pump island is a result of the reinforced concrete and gas pumps at this location. The high amplitude EM61 response along the east side of the convenience store is due to a combination of reinforcement within the building and a metal newspaper box adjacent to the building. The high amplitude EM61 response adjacent to the northwest corner of the store is the result of metal vent pipes for the USTs at this location. The high amplitude EM61 response centered at X=70, Y=75 was believed to be the result of metallic UST(s), however, this portion of the survey area is included in Parcel 021 directly to the south, and the results are discussed in that report (the report concluded that 3 USTs were present at Parcel 021). Lastly, the extensive zone of high amplitude EM61 response to the west of the vent pipes and to the east and northeast of the pump island was believed to be the result of metallic USTs, and was investigated with the GPR equipment.

GPR scans were performed and data viewed in real time across the high amplitude EM61 anomalies that could not be attributed to visible objects at the ground surface. The GPR scans confirmed the presence of three probable metallic USTs within the boundaries of the site. Specifically, two probable metallic USTs were observed to be oriented from west to east, and one probable UST was oriented from south to north, directly to the east and northeast of the pump island. The location of the probable USTs corresponded to the visible fill caps at the ground surface. The southernmost tank was approximately 6 feet wide and 13 feet long. The two northern tanks were approximately 8 feet wide and 17 feet long. The tops of each of the tanks were approximately 3 feet deep. Five specific GPR transects were performed perpendicular and parallel to the three probable USTs, and saved to the hard drive. Figure 4 presents the locations of these GPR transects, as well as a photograph depicting the approximate locations of the three USTs. Figure 5 presents select GPR transect images (Transects 1, 2 and 3). All GPR image data are included in the Appendix. In addition, a fourth UST was observed straddling the boundary between Parcel 019 and Parcel 021 (discussed in detail in the Parcel 021 report).

The geophysical investigation confirms that the area containing the proposed ROW and easement at Parcel 019 contains four probable metallic USTs.

In accordance with the scope of work provided to Pyramid by the NCDOT, we also searched the property for any signs of monitor wells or groundwater wells within the proposed ROW or easement areas. No wells were observed at the time of our inspection.

4.0 SUMMARY & CONCLUSIONS

Our evaluation of the EM61 and GPR data collected across the proposed ROW area at the Matthews General Store property (Parcel 019) located at 2340 Ray Road, Spring Lake, North Carolina, provides the following summary and conclusions:

- The EM61 and GPR surveys provided reliable results for the detection of metallic USTs within the geophysical survey area.

- The EM61 minor anomalies (bottom coil only) were the result of isolated buried metallic debris or reinforced concrete curbing. The high amplitude (differential) EM61 anomalies across the property were the result of a variety of objects, including a store sign, the pump island, reinforcement within the main building structure, and metal vent pipes (see detailed discussion above). The high amplitude anomalies located in between the pump island and the northwest corner of the store were believed to be the result of metallic USTs, and were investigated further with GPR. The high amplitude anomaly at the southern boundary of the survey area centered at X=70 was also believe to be the result of a metallic UST, and is included in the survey report for Parcel 021.

- GPR scans performed across the anomalies in between the pump island and the store confirmed the presence of three metallic USTs at this location. Specifically, two metallic USTs were observed to be oriented from west to east, and one UST was oriented from south to north, directly to the east and northeast of the pump island. The location of the USTs corresponded to the visible fill caps at the ground surface. The southernmost tank was approximately 6 feet wide and 13 feet long. The two northern tanks were approximately 8 feet wide and 17 feet long. The tops of each of the tanks were approximately 3 feet deep.

- The geophysical investigation suggests that the proposed ROW and easement areas at the property contain four metallic USTs.
- Site observations did not indicate the presence of any monitor wells or groundwater wells at the time of our inspection.

5.0 LIMITATIONS

EM61 and GPR surveys have been performed and this report prepared for the NCDOT in accordance with generally accepted guidelines for EM61 and GPR surveys. It is generally recognized that the results of the EM61 and GPR surveys are non-unique and may not represent actual subsurface conditions. The EM61 and GPR results obtained for this project have not conclusively determined that metallic USTs do not lie within the proposed ROW and easement area of the Harnett County property, but that none were detected.

FIGURES

Photograph of portion of survey area, facing approximately north

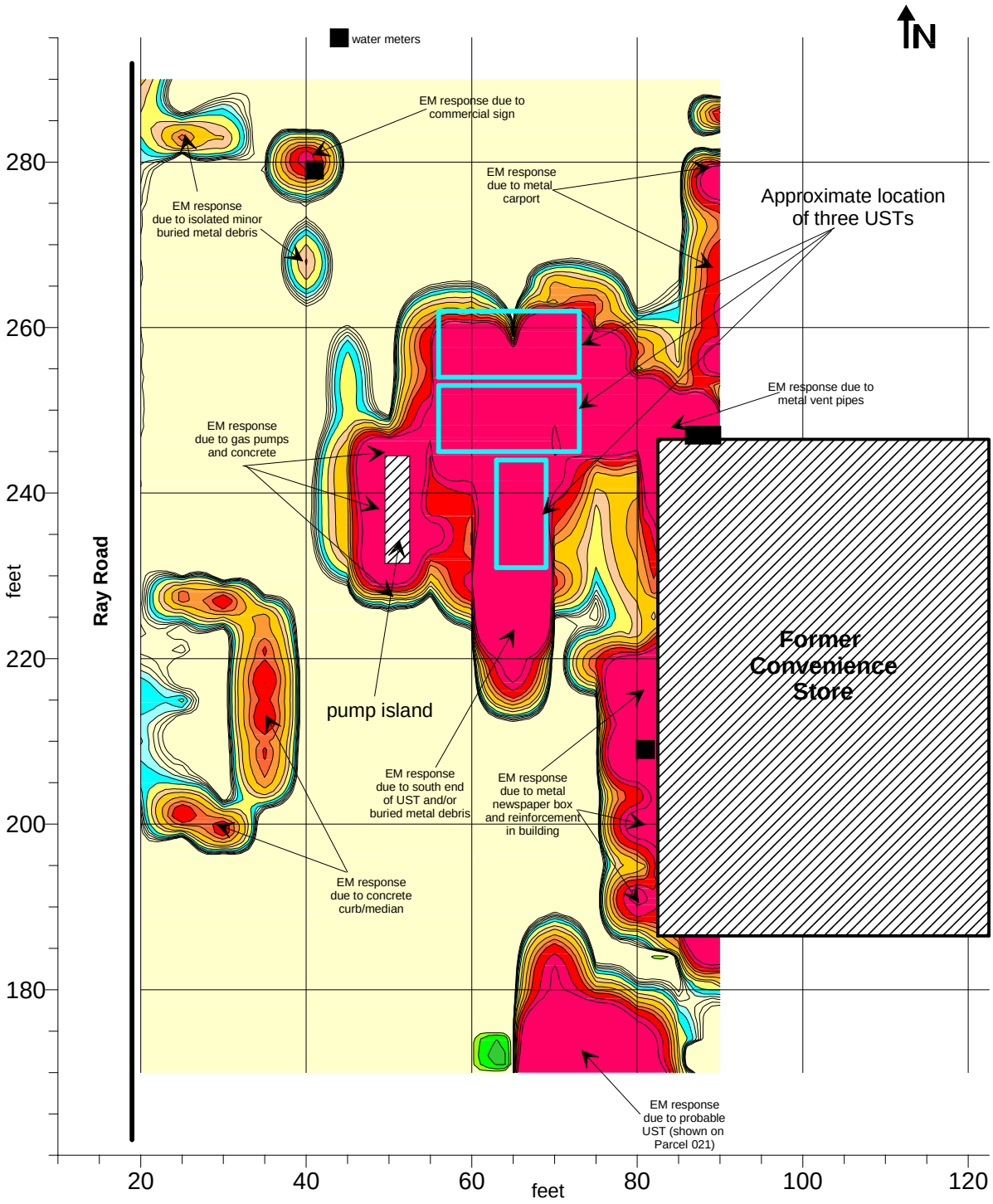
Photograph of portion of survey area, facing approximately northeast

PYRAMID
ENVIRONMENTAL & ENGINEERING, P.C.

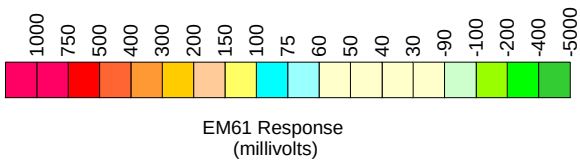
CLIENT	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		DATE	09/05/12	DRWN ECC
SITE	NCDOT PROJECT U-3465 - PARCEL 019		LAY		CHKD
CITY	SPRING LAKE	STATE NORTH CAROLINA	DWG		
TITLE	GEOPHYSICAL RESULTS		JNO	2012-228	FIGURE

SITE PHOTOGRAPHS

FIGURE 1



The contour plot shows the bottom coil (most sensitive) results of the EM61 instrument in millivolts (mV). The bottom coil response shows buried metallic objects regardless of size. The EM61 data were collected on September 5, 2012 using a Geonics EM61 instrument. Ground penetrating radar (GPR) data were acquired across selected EM61 anomalies on September 6, 2012, using a Geophysical Survey Systems SIR 3000 instrument with a 400 MHz antenna.



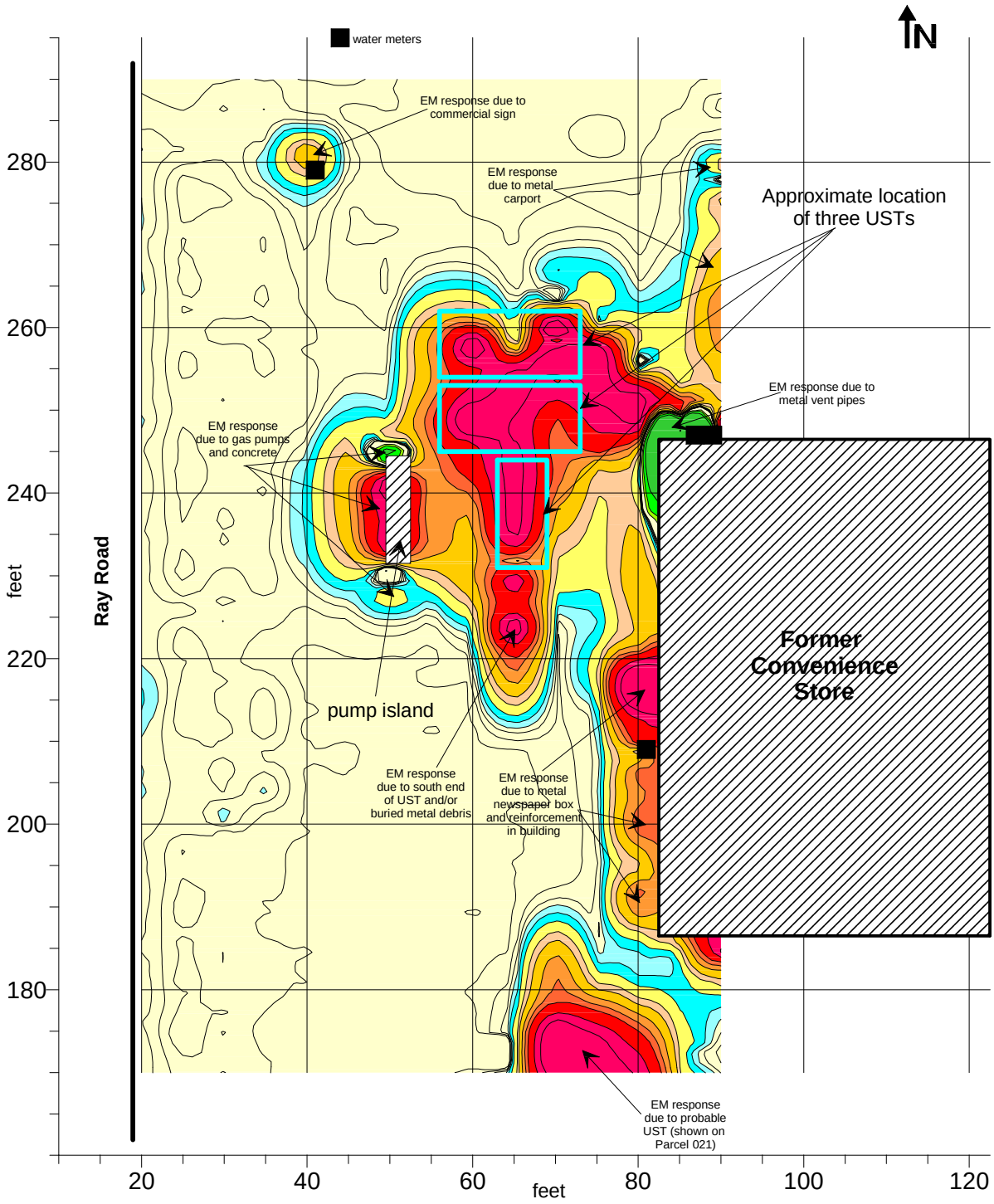
Three probable USTs confirmed by geophysical survey

PYRAMID
ENVIRONMENTAL & ENGINEERING, P.C.

CLIENT	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	DATE	09/05/12	DRWN	ECC
SITE	NCDOT PROJECT U-3465 - PARCEL 019	LAY		CHKD	
CITY	SPRING LAKE	STATE	NORTH CAROLINA	DWG	
TITLE	GEOPHYSICAL RESULTS	J.NO.	2012-228	FIGURE	

EM61 BOTTOM COIL RESPONSE CONTOURS

FIGURE 2



The contour plot shows the differential results of the EM61instrument in millivolts (mV). The differential response focuses on larger, buried metallic objects such as drums and USTs and ignores smaller miscellaneous, buried, metal debris. The EM61 data were collected on September 5, 2012 using a Geonics EM61 instrument. Ground penetrating radar (GPR) data were acquired across selected EM61 Anomalies on September 6, 2012 using a Geophysical Survey Systems SIR 3000 instrument with a 400 MHz antenna.

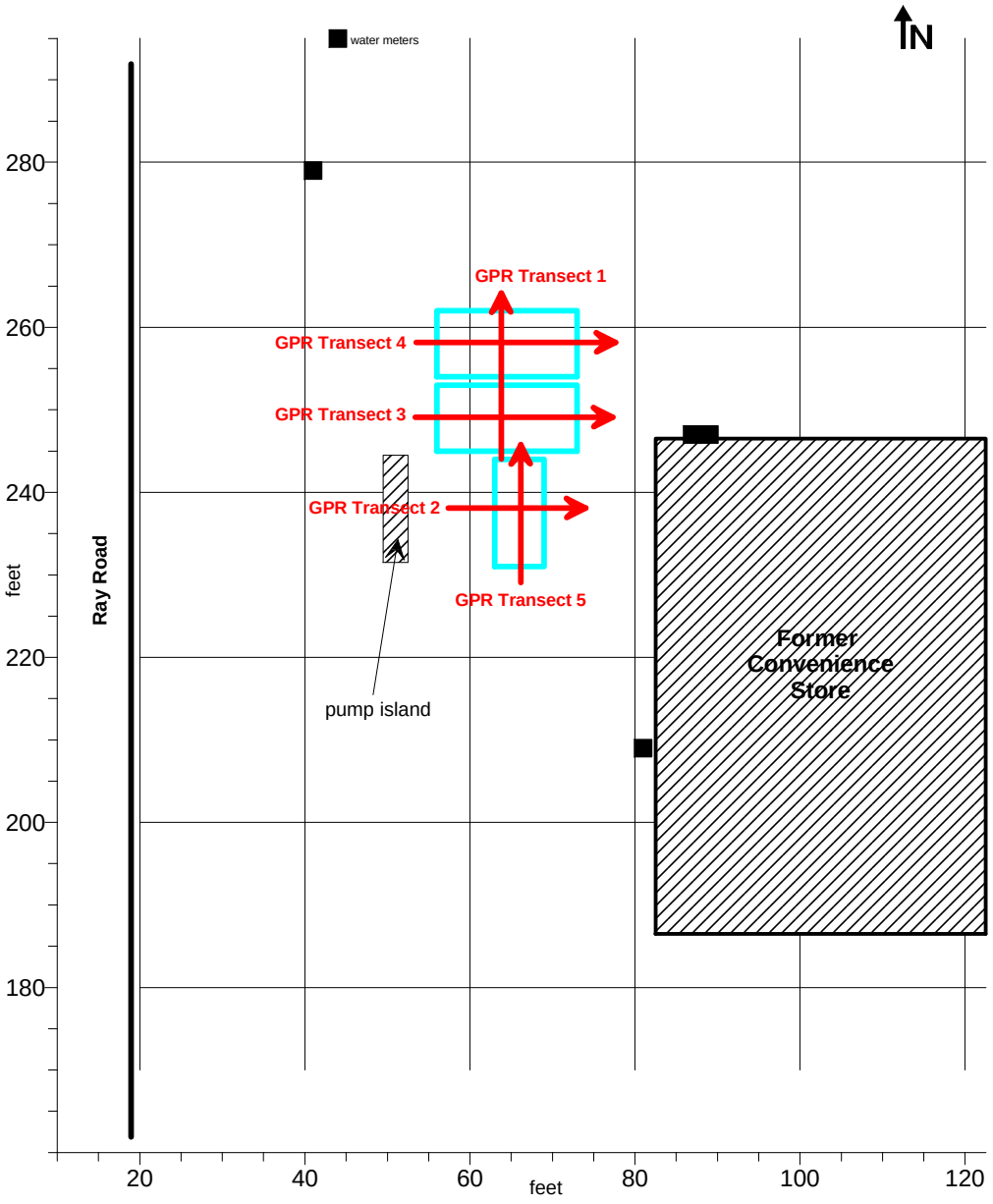
Three probable USTs confirmed by geophysical survey

PYRAMID ENVIRONMENTAL & ENGINEERING, P.C.

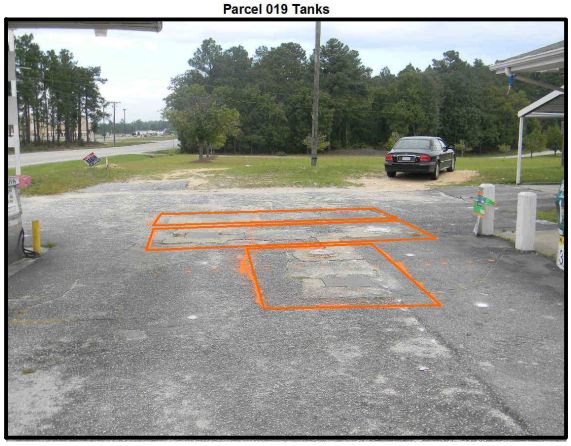
CLIENT	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	DATE	09/05/12	DRWN	ECC
SITE	NCDOT PROJECT U-3465 - PARCEL 019	LAY		CHKD	
CITY	SPRING LAKE	STATE	NORTH CAROLINA	DWG	
TITLE	GEOPHYSICAL RESULTS	J.NO.	2012-228	FIGURE	

EM61 DIFFERENTIAL RESPONSE CONTOURS

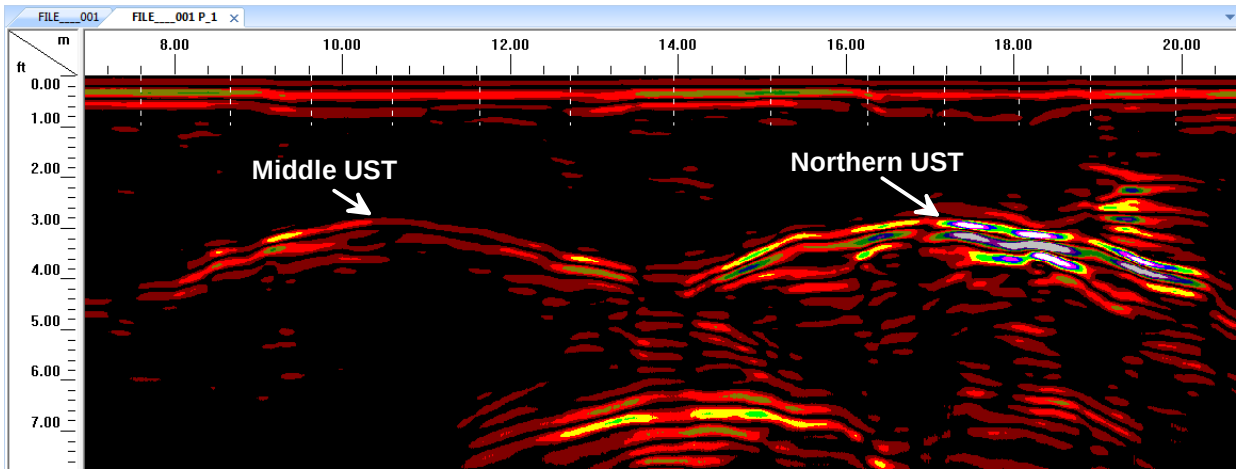
FIGURE 3



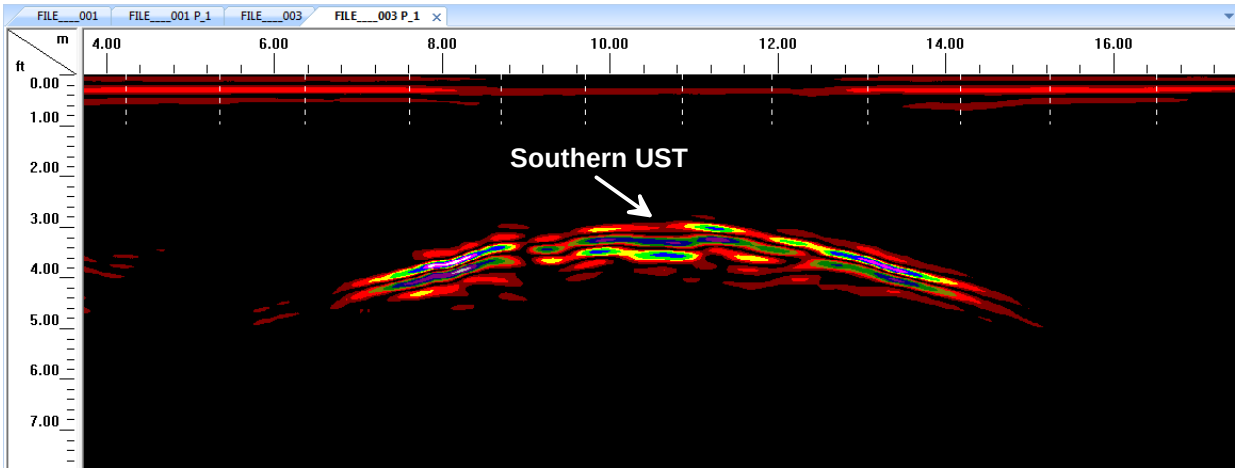
Parcel 019 Tanks



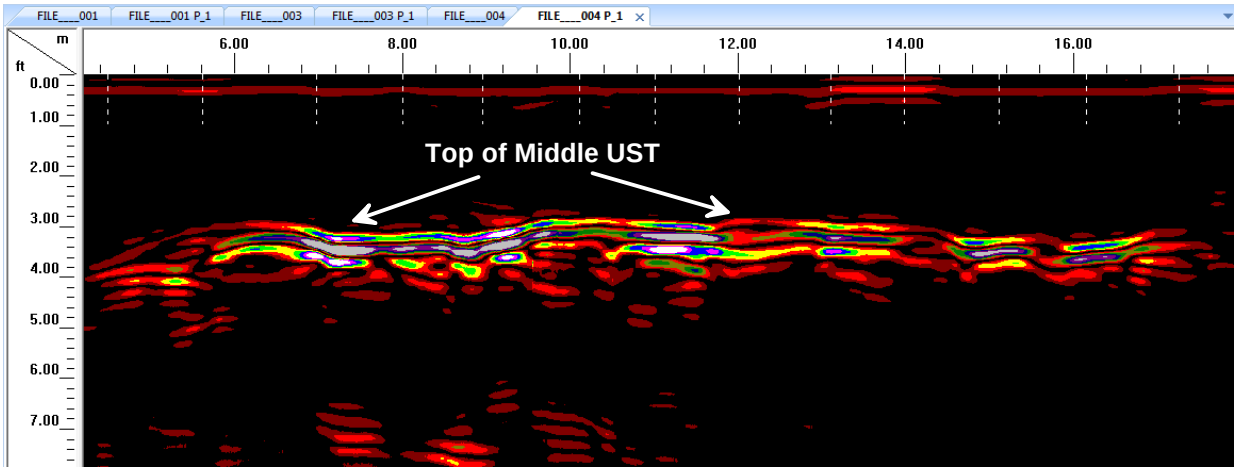
PYRAMID ENVIRONMENTAL & ENGINEERING, P.C.	CLIENT	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	DATE 09/06/12	DRWN ECC	GPR Transect Locations and Approximate UST Locations
	SITE	NCDOT PROJECT U-3465 - PARCEL 019	LAY	CHKD	
	CITY	SPRING LAKE / STATE NORTH CAROLINA	DWG		
	TITLE	GEOPHYSICAL RESULTS	J.NO. 2012-228	FIGURE	FIGURE 4



GPR Transect 1 - South to North Across Two Northern USTs



GPR Transect 2 - South to North Across Southern UST



GPR Transect 3 - West to East Across Middle UST

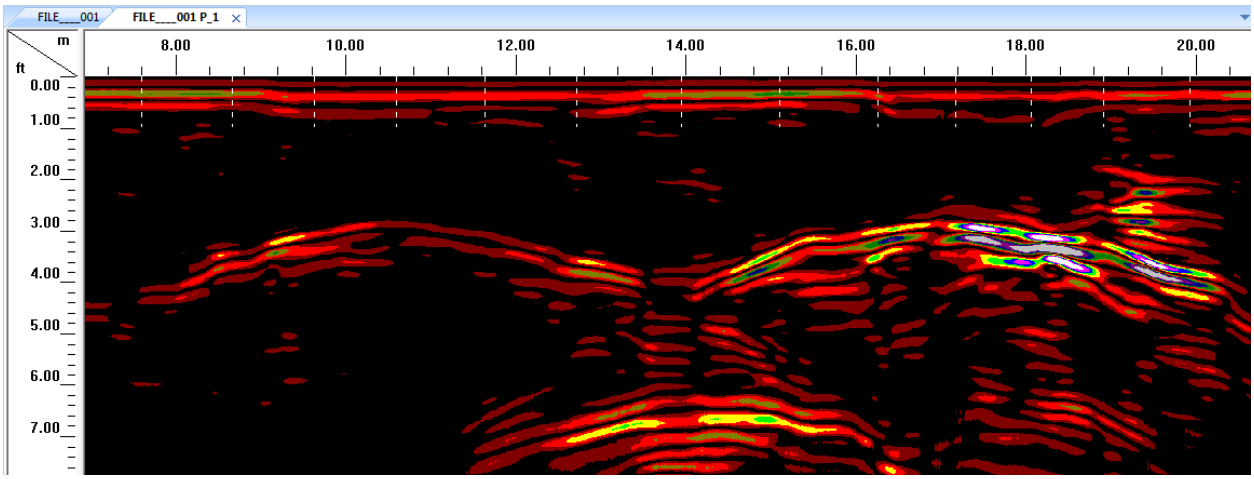
PYRAMID
ENVIRONMENTAL & ENGINEERING, P.C.

CLIENT	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	DATE	09/06/12	DRWN	ECC
SITE	NCDOT PROJECT U-3465 - PARCEL 019	LAY		CHKD	
CITY	SPRING LAKE	STATE	NORTH CAROLINA	DWG	
TITLE	GEOPHYSICAL RESULTS	J.NO.	2012-228	FIGURE	

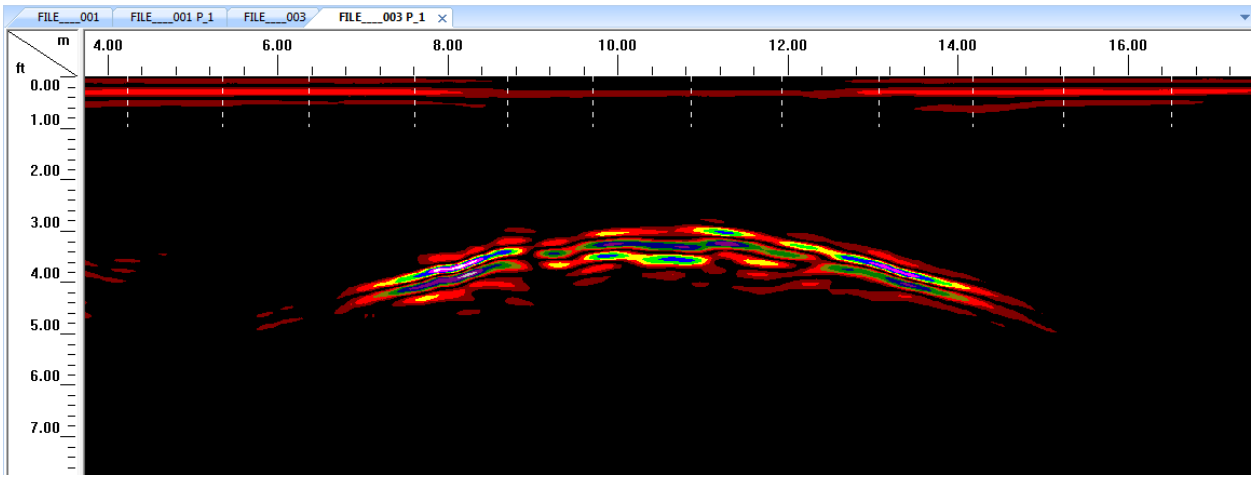
Select GPR Transect Images

FIGURE 5

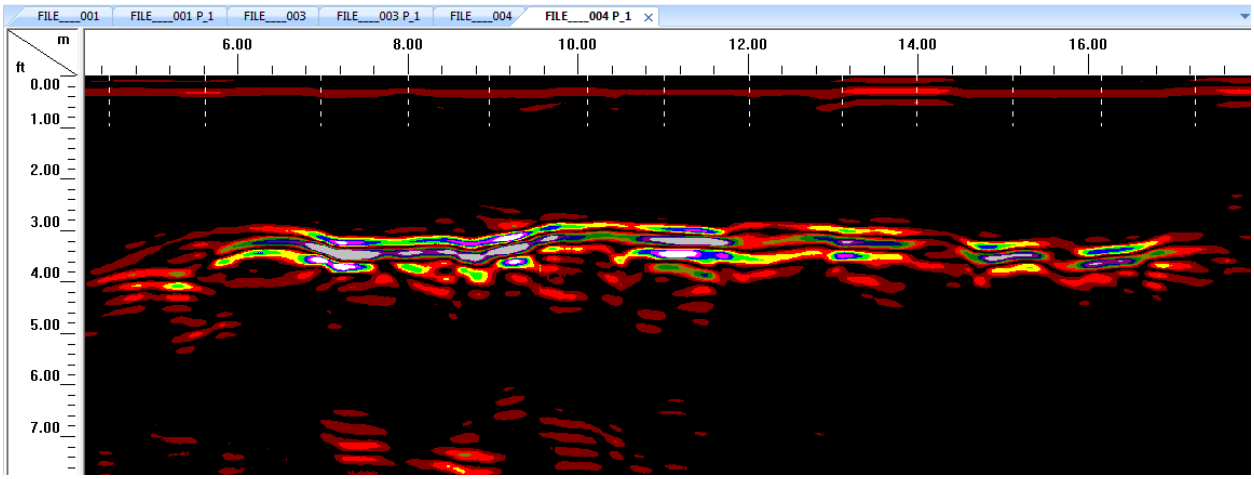
Appendix – GPR Transect Images



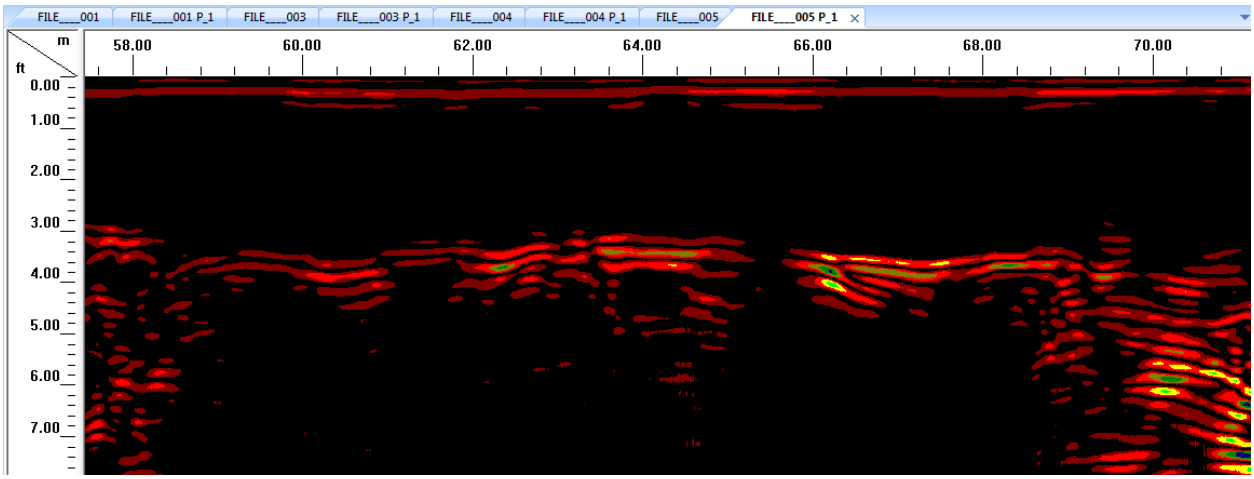
GPR Transect 1



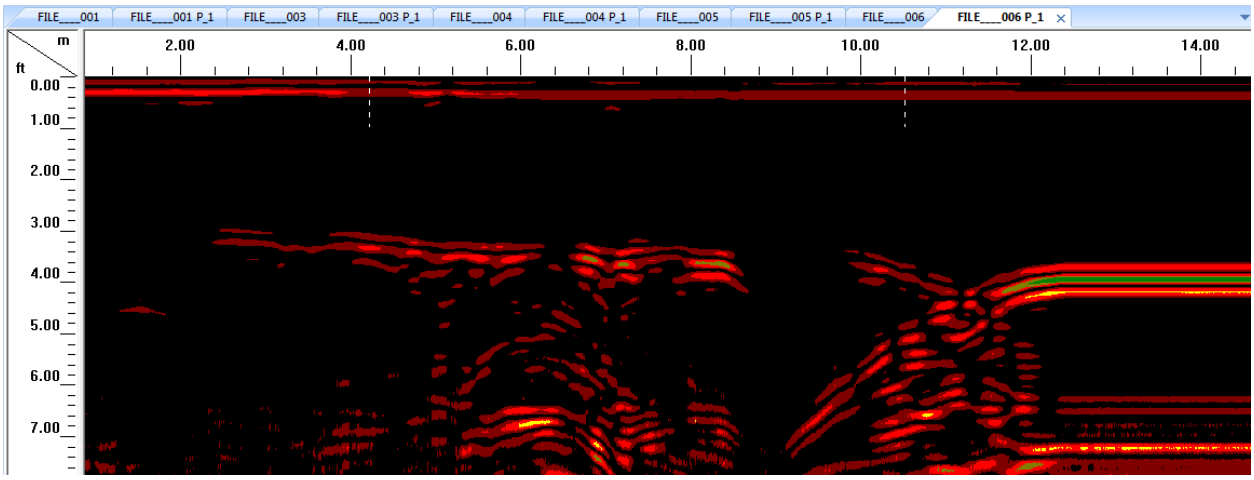
GPR Transect 2



GPR Transect 3



GPR Transect 4



GPR Transect 5

APPENDIX D

Pyramid Environmental & Engineering, P.C.

FIELD DRILLING RECORD

PROJECT NAME: **PROJECT NUMBER:**	NC DOT U-3465 Harnett County, Ray Road, Spring Lake / 2012-228	**BORING/WELL NO:**	19-1
SITE LOCATION:	2340 Ray Road - Parcel 019 Harnett County	**BORING/WELL LOCATION:**	Parcel 019 - Near Pump Island
START DATE:	9/12/12	**COMPLETED:**	9/12/12
GEOLOGIST:	T. Leatherman	**DRILLER:**	AEDI
DRILL METHOD:	Geoprobe	**SAMPLE METHOD:**	Maco-core
BORING DIA:	2-inch	**CASING DIA:**	None
TOTAL DEPTH:	10 feet	**CASING DEPTH:**	None

DEPTH (ft.)	**VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.**	**OVA RESULTS PERCENT RECOVERY BLOW COUNTS**
0 to 5'	Brown to tan, clayey-sand (SC), moist, no odor	PID=19-1(3-5'): 25 PPM
5 to 10'	Brown to tan, clayey-sand to sandy-clay (SC to CL), moist,	PID=19-1(5-7.5'): 200 PPM
	petroleum odor	PID=19-1(7.5-10'): 5000 PPM

MONITORING WELL INFORMATION (IF APPLICABLE)

RISER LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
SCREEN LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
DEPTH TO TOP OF SAND _____ BAGS OF SAND ___.
DEPTH TO TOP SEAL _____ BENTONITE USED _____ BAGS OF CEMENT USED ___.

Pyramid Environmental & Engineering, P.C.

FIELD DRILLING RECORD

PROJECT NAME: **PROJECT NUMBER:**	NC DOT U-3465 Harnett County, Ray Road, Spring Lake / 2012-228	**BORING/WELL NO:**	19-2
SITE LOCATION:	2340 Ray Road - Parcel 019 Harnett County	**BORING/WELL LOCATION:**	Parcel 019 - Near Ray Road; Down-gradient of Pump Island
START DATE:	9/12/12	**COMPLETED:**	9/12/12
GEOLOGIST:	T. Leatherman	**DRILLER:**	AEDI
DRILL METHOD:	Geoprobe	**SAMPLE METHOD:**	Maco-core
BORING DIA:	2-inch	**CASING DIA:**	1-inch
TOTAL DEPTH:	38 feet	**CASING DEPTH:**	38 feet

DEPTH (ft.)	VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.	OVA RESULTS PERCENT RECOVERY BLOW COUNTS
0 to 5'	Brown, sand with a small amount of fines and some gravel/rock	PID=19-2(3-5'): 100 PPM
	fragments (SP), moist, no odor	
5 to 10'	Brown to tan, clayey-sand to sandy-clay (SC to CL), moist, no odor	PID=19-2(5-7.5'): 230 PPM
		PID=19-2(7.5-10'): 100 PPM
10 to 15'	Tan to white, sand with a small amount of fines (SP to SW), moist,	PID=19-2(12-15'): 75 PPM
	no odor	
	Set 1-inch temporary well at 38 feet with 5 feet of screen.	
	Depth-to-Groundwater = 30.4 feet below land surface (BLS)	

MONITORING WELL INFORMATION (IF APPLICABLE)

RISER LENGTH (ft) 33 DEPTH (ft) 0-33 DIAMETER (in) 1 MATERIAL PVC.
SCREEN LENGTH (ft) 5 DEPTH (ft) 33-38 DIAMETER (in) 1 MATERIAL PVC.
DEPTH TO TOP OF SAND NA BAGS OF SAND NA.
DEPTH TO TOP SEAL NA BENTONITE USED NA BAGS OF CEMENT USED NA.

Pyramid Environmental & Engineering, P.C.

FIELD DRILLING RECORD

PROJECT NAME: **PROJECT NUMBER:**	NC DOT U-3465 Harnett County, Ray Road, Spring Lake / 2012-228	**BORING/WELL NO:**	19-3
SITE LOCATION:	2340 Ray Road - Parcel 019 Harnett County	**BORING/WELL LOCATION:**	Parcel 019 - Near Pump Island
START DATE:	9/12/12	**COMPLETED:**	9/12/12
GEOLOGIST:	T. Leatherman	**DRILLER:**	AEDI
DRILL METHOD:	Geoprobe	**SAMPLE METHOD:**	Maco-core
BORING DIA:	2-inch	**CASING DIA:**	None
TOTAL DEPTH:	10 feet	**CASING DEPTH:**	None

DEPTH (ft.)	**VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.**	**OVA RESULTS PERCENT RECOVERY BLOW COUNTS**
0 to 5'	Brown to tan, clayey-sand (SC), moist, no odor	PID=19-3(2-5'): 65 PPM
5 to 10'	Brown to tan, clayey-sand to sandy-clay (SC to CL), moist,	PID=19-3(5-7.5'): 65 PPM
	slight petroleum odor	PID=19-3(7.5-10'): 65 PPM

MONITORING WELL INFORMATION (IF APPLICABLE)

RISER LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
SCREEN LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
DEPTH TO TOP OF SAND _____ BAGS OF SAND ___.
DEPTH TO TOP SEAL _____ BENTONITE USED _____ BAGS OF CEMENT USED ___.

Pyramid Environmental & Engineering, P.C.

FIELD DRILLING RECORD

PROJECT NAME: PROJECT NUMBER:	NC DOT U-3465 Harnett County, Ray Road, Spring Lake / 2012-228	**BORING/WELL NO:**	19-4
SITE LOCATION:	2340 Ray Road - Parcel 019 Harnett County	**BORING/WELL LOCATION:**	Parcel 019 - Near Underground Storage Tanks
START DATE:	9/12/12	**COMPLETED:**	9/12/12
GEOLOGIST:	T. Leatherman	**DRILLER:**	AEDI
DRILL METHOD:	Geoprobe	**SAMPLE METHOD:**	Maco-core
BORING DIA:	2-inch	**CASING DIA:**	None
TOTAL DEPTH:	15 feet	**CASING DEPTH:**	None

DEPTH (ft.)	**VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.**	**OVA RESULTS PERCENT RECOVERY BLOW COUNTS**
0 to 5'	Brown, clayey-sand to sand (SC), slightly moist, no odor	PID=19-4(3-5'): 85 PPM
5 to 10'	Brown, clayey-sand to sandy-clay (SC), moist, no odor	PID=19-4(5-7.5'): 50 PPM
		PID=19-4(7.5-10'): 50 PPM
10 to 15'	Tan to white, sand (SP to SW), moist, slight petroleum odor	PID=19-4(12-15'): 80 PPM

MONITORING WELL INFORMATION (IF APPLICABLE)

RISER LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
SCREEN LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
DEPTH TO TOP OF SAND _____ BAGS OF SAND ___.
DEPTH TO TOP SEAL _____ BENTONITE USED _____ BAGS OF CEMENT USED ___.

Pyramid Environmental & Engineering, P.C.

FIELD DRILLING RECORD

PROJECT NAME: PROJECT NUMBER:	NC DOT U-3465 Harnett County, Ray Road, Spring Lake / 2012-228	**BORING/WELL NO:**	19-5
SITE LOCATION:	2340 Ray Road - Parcel 019 Harnett County	**BORING/WELL LOCATION:**	Parcel 019 - Near Underground Storage Tanks
START DATE:	9/12/12	**COMPLETED:**	9/12/12
GEOLOGIST:	T. Leatherman	**DRILLER:**	AEDI
DRILL METHOD:	Geoprobe	**SAMPLE METHOD:**	Maco-core
BORING DIA:	2-inch	**CASING DIA:**	None
TOTAL DEPTH:	15 feet	**CASING DEPTH:**	None

DEPTH (ft.)	**VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.**	**OVA RESULTS PERCENT RECOVERY BLOW COUNTS**
0 to 5'	Brown, silty-clayey-sand (SM to SC), moist, no odor	PID=19-5(3-5'): 110 PPM
5 to 7.5'	Brown, clayey-sand (SC), moist, no odor	PID=19-5(5-7.5'): 75 PPM
7.5 to 10'	Brown to tan, clay layer to clayey-sand (CH to SC), moist, no odor	PID=19-5(7.5-10'): 30 PPM
10 to 15'	Tan to white, sand to clayey-sand (SP to SC), moist, no odor	PID=19-5(12-15'): 100 PPM

MONITORING WELL INFORMATION (IF APPLICABLE)

RISER LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
SCREEN LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
DEPTH TO TOP OF SAND _____ BAGS OF SAND ___.
DEPTH TO TOP SEAL _____ BENTONITE USED _____ BAGS OF CEMENT USED ___.

Pyramid Environmental & Engineering, P.C.

FIELD DRILLING RECORD

PROJECT NAME: PROJECT NUMBER:	NC DOT U-3465 Harnett County, Ray Road, Spring Lake / 2012-228	**BORING/WELL NO:**	19-6
SITE LOCATION:	2340 Ray Road - Parcel 019 Harnett County	**BORING/WELL LOCATION:**	Parcel 019 - Near Underground Storage Tanks
START DATE:	9/12/12	**COMPLETED:**	9/12/12
GEOLOGIST:	T. Leatherman	**DRILLER:**	AEDI
DRILL METHOD:	Geoprobe	**SAMPLE METHOD:**	Maco-core
BORING DIA:	2-inch	**CASING DIA:**	None
TOTAL DEPTH:	15 feet	**CASING DEPTH:**	None

DEPTH (ft.)	**VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.**	**OVA RESULTS PERCENT RECOVERY BLOW COUNTS**
0 to 5'	Brown, sand to clayey-sand (SW to SC), moist, no odor	PID=19-6(3-5'): 75 to 80 PPM
5 to 7.5'	Brown, sand to clayey-sand (SW to SC), moist, no odor	PID=19-6(5-7.5'): 100 PPM
7.5 to 10'	Brown to tan, sandy-clay (CL), moist, no odor	PID=19-6(7.5-10'): 110 PPM
10 to 15'	Tan to white, sandy to clayey-sand (SP to SC), moist,	PID=19-6(12-15'): 85 PPM
	possible slight odor	

MONITORING WELL INFORMATION (IF APPLICABLE)

RISER LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
SCREEN LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
DEPTH TO TOP OF SAND _____ BAGS OF SAND ___.
DEPTH TO TOP SEAL _____ BENTONITE USED _____ BAGS OF CEMENT USED ___.

Pyramid Environmental & Engineering, P.C.

FIELD DRILLING RECORD

PROJECT NAME: **PROJECT NUMBER:**	NC DOT U-3465 Harnett County, Ray Road, Spring Lake / 2012-228	**BORING/WELL NO:**	19-7
SITE LOCATION:	2340 Ray Road - Parcel 019 Harnett County	**BORING/WELL LOCATION:**	Parcel 019 - Near Ray Road
START DATE:	9/12/12	**COMPLETED:**	9/12/12
GEOLOGIST:	T. Leatherman	**DRILLER:**	AEDI
DRILL METHOD:	Geoprobe	**SAMPLE METHOD:**	Maco-core
BORING DIA:	2-inch	**CASING DIA:**	None
TOTAL DEPTH:	10 feet	**CASING DEPTH:**	None

DEPTH (ft.)	**VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.**	**OVA RESULTS PERCENT RECOVERY BLOW COUNTS**
0 to 5'	Brown, clayey-sand to sand (SC), moist, no odor	PID=19-7(3-5'): 75 PPM
5 to 10'	Brown, clayey-sand to sandy-clay (SC to CL), moist, no odor	PID=19-7(5-7.5'): 95 PPM
		PID=19-7(7.5-10'): 90 PPM

MONITORING WELL INFORMATION (IF APPLICABLE)

RISER LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
SCREEN LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
DEPTH TO TOP OF SAND _____ BAGS OF SAND ___.
DEPTH TO TOP SEAL _____ BENTONITE USED _____ BAGS OF CEMENT USED ___.

APPENDIX E

Laboratory Report of Analysis

To: Tim Leatherman
Pyramid
PO Box 16265
Greensboro, NC 27416

Report Number: **31202950**

Client Project: **Ray Rd., Parcel 019**

Dear Tim Leatherman,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

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

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.

Barbara A. Hager
2012.09.25 09:05:20 -05'00'

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

Print Date: 09/25/2012 N.C. Certification # 481

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

Laboratory Qualifiers

Report Definitions

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

Qualifier Definitions

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

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

M1	Mis-identified peak

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

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
19-1 (7.5-10)	31202950001	09/12/2012 14:30	09/17/2012 08:40	Soil-Solid as dry weight
19-2 (5-7.5)	31202950002	09/12/2012 16:00	09/17/2012 08:40	Soil-Solid as dry weight
19-3 (7.5-10)	31202950003	09/12/2012 14:35	09/17/2012 08:40	Soil-Solid as dry weight
19-4 (3-5)	31202950004	09/12/2012 14:40	09/17/2012 08:40	Soil-Solid as dry weight
19-5 (3-5)	31202950005	09/12/2012 14:50	09/17/2012 08:40	Soil-Solid as dry weight
19-6 (7.5-10)	31202950006	09/12/2012 15:00	09/17/2012 08:40	Soil-Solid as dry weight
19-7 (5-7.5)	31202950007	09/12/2012 15:50	09/17/2012 08:40	Soil-Solid as dry weight
19-2 (TW)	31202950008	09/12/2012 17:00	09/17/2012 08:40	Water

Case Narrative

19-1 (7.5-10)

8015 GRO- A batch MS/MSD is not reported with batch VGC2149 as the parent sample required additional dilutions.

Detectable Results Summary

Client Sample ID: **19-1 (7.5-10)**
Lab Sample ID: 31202950001-C

SW-846 8015C DRO
SW-846 8015C GRO

Parameter	Result	Units
Diesel Range Organics (DRO)	642	mg/kg
Gasoline Range Organics (GRO)	473	mg/kg

Client Sample ID: **19-3 (7.5-10)**
Lab Sample ID: 31202950003-C

SW-846 8015C DRO

Parameter	Result	Units
Diesel Range Organics (DRO)	8.21	mg/kg

Client Sample ID: **19-2 (TW)**
Lab Sample ID: 31202950008-A

SM 6200-B

Parameter	Result	Units	
Chloroform	0.290	ug/L	J
tert-Butyl methyl ether (MTBE)	1.36	ug/L	

Print Date: 09/25/2012

N.C. Certification # 481

Results of **19-1 (7.5-10)**

Client Sample ID: **19-1 (7.5-10)**
Client Project ID: **Ray Rd., Parcel 019**
Lab Sample ID: 31202950001-A
Lab Project ID: 31202950

Collection Date: 09/12/2012 14:30
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 84.90

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	**473**		63.8	63.8	mg/kg	20	09/21/2012 13:35
Surrogates							
4-Bromofluorobenzene	104			70.0-130	%	20	09/21/2012 13:35

Batch Information

Analytical Batch: **VGC2150**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**

Prep Batch: **VXX4033**
Prep Method: **SW-846 5035**
Prep Date/Time: **09/18/2012 09:26**
Prep Initial Wt./Vol.: **7.38 g**
Prep Extract Vol: **5 mL**

Print Date: 09/25/2012

N.C. Certification # 481

Results of **19-1 (7.5-10)**

Client Sample ID: **19-1 (7.5-10)**
Client Project ID: **Ray Rd., Parcel 019**
Lab Sample ID: 31202950001-C
Lab Project ID: 31202950

Collection Date: 09/12/2012 14:30
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 84.90

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	**642**		7.34	7.34	mg/kg	1	09/21/2012 2:46
Surrogates							
o-Terphenyl	94.8			40.0-140	%	1	09/21/2012 2:46

Batch Information

Analytical Batch: **XGC2545**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3067**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/19/2012 11:45**
Prep Initial Wt./Vol.: **32.09 g**
Prep Extract Vol: **10 mL**

Print Date: 09/25/2012

N.C. Certification # 481

ReyUlty oz 19- (7. -50)

Client Sample ID: **19- (7. -50)**
Client Project ID: **Ray(Rd0(Parcel(S19**
Lab Sample ID: 31202950002-A
Lab Project ID: 31202950

Collection Date: 09/12/2012 14:00
Received Date: 09/17/2012 08:M0
x atris: Soil-Solid ay drwg eih(t
Solidy %: 80Q00

ReyUlty bw W8 -46C(4S1. G(OR3

Parameter	ReyUlt	u Ual	DL	LQu /CL	Fnity	Df	Date AnalwGed
k ayoline Ranhe Qrhanicy %s RQ.	6 D	F	30Q8	30Q8	mh/Bh	1	09/21/2012 15:17
Wurrogates							
M-Tromo2Uorobenene	107			700-130	)	1	09/21/2012 15:17

Batch(Information

Analwtical Tatc(: **VOG 1. S**
Analwtical x et(od: **W8 -46C(4S1. G(OR3**
InytrUment: **OG5**
Analwyt: **MDY**

Prep Tatc(: **VXX6S/ /**
Prep x et(od: **W8 -46C(. S/ .**
Prep Date/Wime: **S92142 S1 ((S9: C**
Prep Initial V t0EolO C056(g
Prep Nstract Eol: **. (mL**

Print Date: 09/25/2012

6 0C0Certi2ication # M81

ReyUlty oA19- (7. -50)

Client Sample ID: **19- (7. -50)**
Client Project ID: **Ray(Rd0(Parcel(S19**
Lab Sample ID: 31202950002-C
Lab Project ID: 31202950

Collection Date: 09/12/2012 14:00
Received Date: 09/17/2012 08:M0
x atris: Soil-Solid ay drwg eih(t
Solidy %: 80C00

ReyUlty bw**W8 -46C(4S1. D(OR2**

Parameter	ReyUlt	u Ual	DL	LQu /CL	Fnity	Df	Date z nalwked
Dieyel Ranhe Qrhanicy %DRQ.	6 D	F	7Q42	7Q42	mh/Th	1	09/21/2012 3:1M
Wurrogates							
o-Berp(enwl	89C3			M0C0-1M0	)	1	09/21/2012 3:1M

Batch(Information

z nalwtical Watc(: **XGD . 6.**
z nalwtical x et(od: **W8 -46C(4S1. D(OR2**
InytrUment: **GDC**
z nalwyt: **OTF**

Prep Watc(: **XXX3SC5**
Prep x et(od: **W8 -46C(3. 61**
Prep Date/Bime: **S9/19/ S1 ((11:6.**
Prep Initial V tŒEolO **3 041(g**
Prep Nstract Eol: **1S(mL**

Print Date: 09/25/2012

6 CCCertiAcation # M81

Results of 19- (7. 5D-1) R

Client Sample ID: 19- (7. 5D-1) R
Client Project ID: a yd(a , 5Rr ycel S) 19
Lab Sample ID: 31202950003-A
Lab Project ID: 31202950

Collection Date: 09/12/2012 14:35
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 87.80

Results by W8 -46C(4) 10G(Oa 3

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND	U	3.24	3.24	mg/kg	1	09/21/2012 15:42
Wuccogytl s							
4-Bromofluorobenzene	100			70.0-130	%	1	09/21/2012 15:42

Byteh(Infoamytion

Analytical Batch: VOG210)
Analytical Method: W8 -46C(4) 10G(Oa 3
Instrument: OG.
Analyst: MDY

Prep Batch: VXX6)
Prep Method: W8 -46C(0) 0
Prep Date/Time:) 9/14/2) 12(() 9:2.
Prep Initial Wt./Vol.: . 5) (g
Prep Extract Vol: 0(mL

Print Date: 09/25/2012

N.C. Certification # 481

Results of 19- (7. 5D-1) R

Client Sample ID: 19- (7. 5D-1) R
Client Project ID: a yd(a , 5Rr ycel S) 19
Lab Sample ID: 31202950003-C
Lab Project ID: 31202950

Collection Date: 09/12/2012 14:35
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 87.80

Results by W8 -46C(4) 10D(Oa 2

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	45u1		7.01	7.01	mg/kg	1	09/21/2012 3:42
Wbccgt ysl B							
o-Terphenyl	95.5			40.0-140	%	1	09/21/2012 3:42

hysel (rf rngci ysYgf

Analytical Batch: 3GDu060
Analytical Method: W8 -46C(4) 10D(Oa 2
Instrument: GDC
Analyst: OTF

Prep Batch: 333) C.
Prep Method: W8 -46C(061
Prep Date/Time:) 9/19/u) 1u((11:60
Prep Initial Wt./Vol.: u5Du(t
Prep Extract Vol: 1) (i L

Print Date: 09/25/2012

N.C. Certification # 481

Results of 19- (7. -50

Client Sample ID: 19- (7. -50
Client Project ID:) Ra() yd(PRrcel(S19
Lab Sample ID: 3120295000- A
Lab Project ID: 31202950

Collection Date: 094124 2012 1- :- 0
Received Date: 094174 2012 08:- 0
Matrix: SoilASolid as dry weight
Solids (%): 80.00

Results by W8 -4 6(4S15C(G) O

Parameter	Result	Qual	DL	LOQ4CL	Units	DF	Date / nalyzed
Gasoline Range Organics (GRO)	k D	U	3.90	3.90	mg46g	1	094214 2012 1B:07
W8rruoRget							
- ATromofluorobenzene	98.3			70.0A130	%	1	094214 2012 1B:07

s RgcB(hi nurf Rgnal

/ nalytical Tatch: i GC/ 15S
/ nalytical Method: W8 -4 6(4S15C(G) O
Instrument: GCL
/ nalyst: MDY

Prep Tatch: i VV S. .
Prep Method: W8 -4 6(5S. 5
Prep Date4Vime: S9X14X S1/ ((S92/ 4
Prep Initial V t.4Eol.: 6d 1(o
Prep Nxtract Eol: 5(f :

Print Date: 094254 2012

k .C. Certification # - 81

Results of **19- (7. -50**

Client Sample ID: **19- (7. -50**
Client Project ID: **) Ra() yd(PRrcel(S19**
Lab Sample ID: 3120295000- /C
Lab Project ID: 31202950

Collection Date: 094124 2012 1- :- 0
Received Date: 094174 2012 08:- 0
Matrix: Soil/Solid as dry weight
Solids (%): 80.00

Results by **W8 -4 6(4S15C(D) O**

Parameter	Result	Qual	DL	LOQ4CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	k D	U	T.99	T.99	mg46g	1	094214 2012 5:08
W2rruoRget							
o/Berphenyl	87.7			- 0.0/1- 0	%	1	094214 2012 5:08

s RgcB(hl nurf Rgnal

Analytical Watch: **i GC/ 5 5**
Analytical Method: **W8 -4 6(4S15C(D) O**
Instrument: **GC6**
Analyst: **DTF**

Prep Watch: **i i i . S6X**
Prep Method: **W8 -4 6(. 5 1**
Prep Date4Bime: **S93193' S1/ ((11: 5**
Prep Initial V t.4Eol.: **. 5dK4(o**
Prep Nxtract Eol: **1S(f L**

Print Date: 094254 2012

k .C. Certification # - 81

Results of **19- (7. - 5**

Client Sample ID: **19- (7. - 5**
Client Project ID: **0) R(0 ayd(,) Pr ce(l 19**
Lab Sample ID: 31202950005-A
Lab Project ID: 31202950

Collection Date: 09/12/2012 14:50
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 78.30

Results by **SW-846(8l 1 C(G0 O**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	k D	U	3.94	3.94	mg/6g	1	09/21/2012 1B:32
S3PRuo) gct							
4-Tromofluorobenzene	108			70.0-130	%	1	09/21/2012 1B:32

s) gr B(hl nuFf) gnal

Analytical Tatch: **i GC/ 1 l**
Analytical Method: **SW-846(8l 1 C(G0 O**
Instrument: **GCL**
Analyst: **MDY**

Prep Tatch: **i VV4l . .**
Prep Method: **SW-846(l .**
Prep Date/Wime: **l 9X18X l 1/ ((l 92/ 9**
Prep Initial V t./Eol.: **6y49(o**
Prep Nxtract Eol: **(f :**

Print Date: 09/25/2012

k .C. Certification # 481

Results of **19- (7. - 5**

Client Sample ID: **19- (7. - 5**
Client Project ID: **0) R(0 ayd(,) Pr ce(l 19**
Lab Sample ID: 31202950005-C
Lab Project ID: 31202950

Collection Date: 09/12/2012 14:50
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 78.30

Results by **SW-846(8l 1 C(D0 O**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	k D	U	7.59	7.59	mg/Tg	1	09/21/2012 5:37
S2PRuo) gct							
o-Berphenyl	83.5			40.0-140	%	1	09/21/2012 5:37

s) gr B(hl nuFf) gnal

Analytical Watch: **i GC/ 4**
Analytical Method: **SW-846(8l 1 C(D0 O**
Instrument: **GC6**
Analyst: **DTF**

Prep Watch: **i i i . l 6X**
Prep Method: **SW-846(. 41**
Prep Date/Bime: **l 93193 l 1/ ((11:4**
Prep Initial V t./Eol.: **. . y6X(o**
Prep Nxtract Eol: **1l (f L**

Print Date: 09/25/2012

k .C. Certification # 481

ReyUlty oz **19- (7. 50-1) R**

Client Sample ID: **19- (7. 50-1) R**
Client Project ID: **a yd(a , 5Pr yœl $) 19**
Lab Sample ID: 3120295000- A(
Lab Project ID: 31202950

Collection Date: 0941242012 15:00
Received Date: 0941742012 08:M0
x atris: SoilASolid ay drwg eih(t
Solidy %) .: 82G90

ReyUlty bw **W8 -46 (4) 10C(Ga O**

Parameter	ReyUlt	u Ual	DL	LQu 4CL	Fnity	Df	Date / nalwGed
k ayoline Ranhe Qrhanicy % RQ.	6 D	F	3G M	3G M	mh4Bh	1	0942142012 1- :58
W8 ccuoyg t							
MATromozlUrobenGene	103			700DA130	)	1	0942142012 1- :58

s ygeB(h ruc f ygml

/ nalwtical Tatc(: **i GC210)**
/ nalwtical x et(od: **W8 -46 (4) 10C(Ga O**
InytrUment: **GC.**
/ nalwyt: **MDY**

Prep Tatc(: **i VV6) XX**
Prep x et(od: **W8 -46 (0) X0**
Prep Date4Time: **) 9/14/2) 12(() 9:X)**
Prep Initial V t G EolO **5 X(o**
Prep Nstract Eol: **0(f L**

ReyUlty oA19- (7. 50-1) R

Client Sample ID: **19- (7. 50-1) R**
Client Project ID: **a yd(a , 5Rr ycel S) 19**
Lab Sample ID: 3120295000- /C
Lab Project ID: 31202950

Collection Date: 094124 2012 15:00
Received Date: 094174 2012 08:M0
x atris: Soil/Solid ay drwg eih(t
Solidy %) .: 82090

ReyUlty bw W8 -46 (4) 10C(Da O

Parameter	ReyUlt	u Ual	DL	LQu 4CL	Fnity	Df	Date z nalwked
Dieyel Ranhe Qrhanicy %DRQ.	6 D	F	7005	7005	mh4Th	1	094214 2012 - :05
W2ccuoygl t							
o/Berp(enwl	10M			M00/1M0	)	1	094214 2012 - :05

s ygeB(hl nucf ygnal

z nalwtical Watc(: i GC/ 060
z nalwtical x et(od: W8 -46 (4) 10C(Da O
InytrUment: GC
z nalwyt: DTF

Prep Watc(: i i i X) .
Prep x et(od: W8 -46 (X061
Prep Date4Bime:) 93193) 1/ ((11:60
Prep Initial V t@EolO X65 / (o
Prep Nstract Eol: 1) (f L

Print Date: 094254 2012

6 CCCertiAcation # M81

Results of **19- (7. - 5 0**

Client Sample ID: **19- (7. - 5 0**
Client Project ID: **) Ra() y5[, RPr ce(l 19**
Lab Sample ID: 3120295000- A
Lab Project ID: 31202950

Collection Date: 094124 2012 15:50
Received Date: 0941- 4 2012 07:80
Matrix: SoilASolid as dry weight
Solids (%): - 8.30

Results by **SW-846(8l 1. C(G) O**

Parameter	Result	Qual	DL	LOQ4CL	Units	DF	Date / nalyzed
Gasoline Range Organics (GRO)	ND	U	5.03	5.03	mg4kg	1	094214 2012 1- :23
S3PRuoRgct							
8ABromofluorobenzene	101			- 0.0A130	%	1	094214 2012 1- :23

s RgrB(hl nuFf RgnuI

/ nalytical Batch: **i GC21. l**
/ nalytical Method: **SW-846(8l 1. C(G) O**
Instrument: **GC**
/ nalyst: **MDY**

Prep Batch: **i VV4l XX**
Prep Method: **SW-846(. l X.**
Prep Date4Time: **l 9/18/2l 12((l 9:X1**
Prep Initial Wt.4Vol.: **. 5X. (o**
Prep Extract Vol: **. (f L**

Print Date: 094254 2012

N.C. Certification # 871

Results of **19- (7. - 5 0**

Client Sample ID: **19- (7. - 5 0**
Client Project ID: **) Ra() y5[, RPr ce(l 19**
Lab Sample ID: 3120295000- /C
Lab Project ID: 31202950

Collection Date: 094124 2012 15:50
Received Date: 094l - 4 2012 07:80
Matrix: Soil/Solid as dry weight
Solids (%): - 8.30

Results by **SW-846(8l 1. C(D) O**

Parameter	Result	Qual	DL	LOQ4CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	k D	U	7.35	7.35	mg4Tg	1	094214 2012 - :5-
S2PRuoRgct							
o/Berphenyl	91.9			80.0/180	%	1	094214 2012 - :5-

s RgrB(hl nuFf RgnuI

Analytical Watch: **i GC/ . 4.**
Analytical Method: **SW-846(8l 1. C(D) O**
Instrument: **GC6**
Analyst: **DTF**

Prep Watch: **i i i Xl 68**
Prep Method: **SW-846(X. 41**
Prep Date4Bime: **l 93193 l 1/ ((11:. l**
Prep Initial V t.4Eol.: **X/ 5 6(o**
Prep Nxtract Eol: **1l (f L**

Print Date: 094254 2012

k .C. Certification # 871

Results of **19-2 (TW)**

Client Sample ID: **19-2 (TW)**
Client Project ID: **Ray Rd., Parcel 019**
Lab Sample ID: 31202950008-A
Lab Project ID: 31202950

Collection Date: 09/12/2012 17:00
Received Date: 09/17/2012 08:40
Matrix: Water

Results by **SM 6200-B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.104	0.500	ug/L	1	09/19/2012 13:56
1,1,1-Trichloroethane	ND	U	0.123	0.500	ug/L	1	09/19/2012 13:56
1,1,2,2-Tetrachloroethane	ND	U	0.156	0.500	ug/L	1	09/19/2012 13:56
1,1,2-Trichloroethane	ND	U	0.126	0.500	ug/L	1	09/19/2012 13:56
1,1-Dichloroethane	ND	U	0.165	0.500	ug/L	1	09/19/2012 13:56
1,1-Dichloroethene	ND	U	0.212	0.500	ug/L	1	09/19/2012 13:56
1,1-Dichloropropene	ND	U	0.112	0.500	ug/L	1	09/19/2012 13:56
1,2,3-Trichlorobenzene	ND	U	0.110	0.500	ug/L	1	09/19/2012 13:56
1,2,3-Trichloropropane	ND	U	0.212	0.500	ug/L	1	09/19/2012 13:56
1,2,4-Trichlorobenzene	ND	U	0.0913	0.500	ug/L	1	09/19/2012 13:56
1,2,4-Trimethylbenzene	ND	U	0.0961	0.500	ug/L	1	09/19/2012 13:56
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1	09/19/2012 13:56
1,2-Dibromoethane	ND	U	0.120	0.500	ug/L	1	09/19/2012 13:56
1,2-Dichlorobenzene	ND	U	0.137	0.500	ug/L	1	09/19/2012 13:56
1,2-Dichloroethane	ND	U	0.167	0.500	ug/L	1	09/19/2012 13:56
1,2-Dichloropropane	ND	U	0.163	0.500	ug/L	1	09/19/2012 13:56
1,3,5-Trimethylbenzene	ND	U	0.113	0.500	ug/L	1	09/19/2012 13:56
1,3-Dichlorobenzene	ND	U	0.103	0.500	ug/L	1	09/19/2012 13:56
1,3-Dichloropropane	ND	U	0.189	0.500	ug/L	1	09/19/2012 13:56
1,4-Dichlorobenzene	ND	U	0.130	0.500	ug/L	1	09/19/2012 13:56
2,2-Dichloropropane	ND	U	0.393	0.500	ug/L	1	09/19/2012 13:56
2-Chlorotoluene	ND	U	0.113	0.500	ug/L	1	09/19/2012 13:56
4-Chlorotoluene	ND	U	0.125	0.500	ug/L	1	09/19/2012 13:56
4-Isopropyltoluene	ND	U	0.0769	0.500	ug/L	1	09/19/2012 13:56
Benzene	ND	U	0.113	0.500	ug/L	1	09/19/2012 13:56
Bromobenzene	ND	U	0.110	0.500	ug/L	1	09/19/2012 13:56
Bromochloromethane	ND	U	0.211	0.500	ug/L	1	09/19/2012 13:56
Bromodichloromethane	ND	U	0.110	0.500	ug/L	1	09/19/2012 13:56
Bromoform	ND	U	0.0974	0.500	ug/L	1	09/19/2012 13:56
Bromomethane	ND	U	0.237	0.500	ug/L	1	09/19/2012 13:56
n-Butylbenzene	ND	U	0.0769	0.500	ug/L	1	09/19/2012 13:56
Carbon tetrachloride	ND	U	0.101	0.500	ug/L	1	09/19/2012 13:56
Chlorobenzene	ND	U	0.116	0.500	ug/L	1	09/19/2012 13:56
Chloroethane	ND	U	0.311	0.500	ug/L	1	09/19/2012 13:56
Chloroform	**0.290**	J	0.139	0.500	ug/L	1	09/19/2012 13:56
Chloromethane	ND	U	0.448	0.500	ug/L	1	09/19/2012 13:56
Dibromochloromethane	ND	U	0.134	0.500	ug/L	1	09/19/2012 13:56
Dibromomethane	ND	U	0.168	0.500	ug/L	1	09/19/2012 13:56
Dichlorodifluoromethane	ND	U	0.171	5.00	ug/L	1	09/19/2012 13:56
cis-1,3-Dichloropropene	ND	U	0.0767	0.500	ug/L	1	09/19/2012 13:56
trans-1,3-Dichloropropene	ND	U	0.0862	0.500	ug/L	1	09/19/2012 13:56
Diisopropyl Ether	ND	U	0.155	0.500	ug/L	1	09/19/2012 13:56
Ethyl Benzene	ND	U	0.0877	0.500	ug/L	1	09/19/2012 13:56

Print Date: 09/25/2012

N.C. Certification # 481

Results of **19-2 (TW)**

Client Sample ID: **19-2 (TW)**
Client Project ID: **Ray Rd., Parcel 019**
Lab Sample ID: 31202950008-A
Lab Project ID: 31202950

Collection Date: 09/12/2012 17:00
Received Date: 09/17/2012 08:40
Matrix: Water

Results by **SM 6200-B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Hexachlorobutadiene	ND	U	0.0792	0.500	ug/L	1	09/19/2012 13:56
Isopropylbenzene (Cumene)	ND	U	0.0869	0.500	ug/L	1	09/19/2012 13:56
Methylene chloride	ND	U	0.152	5.00	ug/L	1	09/19/2012 13:56
Naphthalene	ND	U	0.0855	0.500	ug/L	1	09/19/2012 13:56
Styrene	ND	U	0.102	0.500	ug/L	1	09/19/2012 13:56
Tetrachloroethene	ND	U	0.155	0.500	ug/L	1	09/19/2012 13:56
Toluene	ND	U	0.133	0.500	ug/L	1	09/19/2012 13:56
Trichloroethene	ND	U	0.125	0.500	ug/L	1	09/19/2012 13:56
Trichlorofluoromethane	ND	U	0.137	0.500	ug/L	1	09/19/2012 13:56
Vinyl chloride	ND	U	0.124	0.500	ug/L	1	09/19/2012 13:56
Xylene (total)	ND	U	0.269	1.50	ug/L	1	09/19/2012 13:56
cis-1,2-Dichloroethene	ND	U	0.136	0.500	ug/L	1	09/19/2012 13:56
m,p-Xylene	ND	U	0.182	1.00	ug/L	1	09/19/2012 13:56
n-Propylbenzene	ND	U	0.113	0.500	ug/L	1	09/19/2012 13:56
o-Xylene	ND	U	0.0874	0.500	ug/L	1	09/19/2012 13:56
sec-Butylbenzene	ND	U	0.112	0.500	ug/L	1	09/19/2012 13:56
tert-Butyl methyl ether (MTBE)	**1.36**		0.144	0.500	ug/L	1	09/19/2012 13:56
tert-Butylbenzene	ND	U	0.0855	0.500	ug/L	1	09/19/2012 13:56
trans-1,2-Dichloroethene	ND	U	0.223	0.500	ug/L	1	09/19/2012 13:56
Surrogates							
1,2-Dichloroethane-d4	99.7			64.0-140	%	1	09/19/2012 13:56
4-Bromofluorobenzene	101			85.0-115	%	1	09/19/2012 13:56
Toluene d8	103			82.0-117	%	1	09/19/2012 13:56

Batch Information

Analytical Batch: **VMS2561**
Analytical Method: **SM 6200-B**
Instrument: **MSD8**
Analyst: **BWS**

Prep Batch: **VXX4021**
Prep Method: **SM 6200-B Prep**
Prep Date/Time: **09/19/2012 08:35**
Prep Initial Wt./Vol.: **40 mL**
Prep Extract Vol: **40 mL**

Print Date: 09/25/2012

N.C. Certification # 481

Batch Summary

Analytical Method: SM 6200-B

Prep Method: SW-846 5030B
Prep Batch: VXX4021
Prep Date: 09/19/2012 08:52

Client Sample ID	Lab Sample ID	Analysis Date	Analytical Batch	Instrument	Analyst
LCS for HBN 29035 [VXX/4021]	90096	09/19/2012 10:40	VMS2561	MSD8	BWS
LCSD for HBN 29035 [VXX/4021]	90097	09/19/2012 11:04	VMS2561	MSD8	BWS
MB for HBN 29035 [VXX/4021]	90098	09/19/2012 11:53	VMS2561	MSD8	BWS
19-2 (TW)	31202950008	09/19/2012 13:56	VMS2561	MSD8	BWS
4-5 (TW)(89998DUP)	90222	09/19/2012 17:12	VMS2561	MSD8	BWS
9-9 (TW)(89985MS)	90223	09/19/2012 17:37	VMS2561	MSD8	BWS

Method Blank

Blank ID: MB for HBN 29035 [VXX/4021]
Blank Lab ID: 90098
QC for Samples:
31202950008

Matrix: Water

Results by **SM 6200-B**

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

Print Date: 09/25/2012

N.C. Certification # 481

Method Blank

Blank ID: MB for HBN 29035 [VXX/4021]
Blank Lab ID: 90098
QC for Samples:
31202950008

Matrix: Water

Results by **SM 6200-B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Styrene	ND	U	0.102	0.500	ug/L	1
o-Xylene	ND	U	0.0874	0.500	ug/L	1
Xylene (total)	ND	U	0.269	1.50	ug/L	1
Isopropylbenzene (Cumene)	ND	U	0.0869	0.500	ug/L	1
n-Propylbenzene	ND	U	0.113	0.500	ug/L	1
2-Chlorotoluene	ND	U	0.113	0.500	ug/L	1
4-Chlorotoluene	ND	U	0.125	0.500	ug/L	1
1,3,5-Trimethylbenzene	ND	U	0.113	0.500	ug/L	1
tert-Butylbenzene	ND	U	0.0855	0.500	ug/L	1
1,2,4-Trimethylbenzene	ND	U	0.0961	0.500	ug/L	1
sec-Butylbenzene	ND	U	0.112	0.500	ug/L	1
1,3-Dichlorobenzene	ND	U	0.103	0.500	ug/L	1
4-Isopropyltoluene	ND	U	0.0769	0.500	ug/L	1
1,4-Dichlorobenzene	ND	U	0.130	0.500	ug/L	1
1,2-Dichlorobenzene	ND	U	0.137	0.500	ug/L	1
n-Butylbenzene	ND	U	0.0769	0.500	ug/L	1
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1
1,2,4-Trichlorobenzene	ND	U	0.0913	0.500	ug/L	1
Hexachlorobutadiene	ND	U	0.0792	0.500	ug/L	1
Naphthalene	ND	U	0.0855	0.500	ug/L	1
1,2,3-Trichlorobenzene	ND	U	0.110	0.500	ug/L	1
Surrogates						
1,2-Dichloroethane-d4	97.5			64.0-140	%	1
Toluene d8	102			82.0-117	%	1
4-Bromofluorobenzene	101			85.0-115	%	1

Batch Information

Analytical Batch: VMS2561
Analytical Method: SM 6200-B
Instrument: MSD8
Analyst: BWS

Prep Batch: VXX4021
Prep Method: SW-846 5030B
Prep Date/Time: 9/19/2012 8:52:28AM
Prep Initial Wt./Vol.: 40 mL
Prep Extract Vol: 40 mL

Print Date: 09/25/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 29035 [VXX/4021]
Blank Spike Lab ID: 90096
Date Analyzed: 09/19/2012 10:40

Spike Duplicate ID: LCSD for HBN 29035 [VXX/4021]
Spike Duplicate Lab ID: 90097
Date Analyzed: 09/19/2012 11:04
Matrix: Water

QC for Samples: 31202950008

Results by **SM 6200-B**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Dichlorodifluoromethane	5.00	5.35	107	5.00	5.76	115	33.0-170	7.4	30.00
Chloromethane	5.00	5.45	109	5.00	5.62	112	57.0-132	3.1	30.00
Vinyl chloride	5.00	4.58	92	5.00	4.76	95	59.0-138	3.9	30.00
Bromomethane	5.00	5.92	118	5.00	5.93	119	51.0-134	0.17	30.00
Chloroethane	5.00	5.49	110	5.00	5.48	110	64.0-145	0.18	30.00
Trichlorofluoromethane	5.00	5.30	106	5.00	5.81	116	64.0-133	9.2	30.00
1,1-Dichloroethene	5.00	5.93	119	5.00	5.44	109	71.0-128	8.6	30.00
Methylene chloride	5.00	5.32	106	5.00	5.78	**116***	70.0-113	8.3	30.00
trans-1,2-Dichloroethene	5.00	5.96	119	5.00	5.86	117	57.0-138	1.7	30.00
tert-Butyl methyl ether (MTBE)	5.00	5.79	116	5.00	5.48	110	47.0-142	5.5	30.00
1,1-Dichloroethane	5.00	6.35	127	5.00	6.13	123	68.0-133	3.5	30.00
Diisopropyl Ether	5.00	6.52	130	5.00	6.16	123	66.0-132	5.7	30.00
2,2-Dichloropropane	5.00	6.88	**138***	5.00	5.91	118	74.0-125	15	30.00
cis-1,2-Dichloroethene	5.00	6.55	**131***	5.00	5.51	110	73.0-128	17	30.00
Bromochloromethane	5.00	5.77	115	5.00	5.66	113	73.0-128	1.9	30.00
Chloroform	5.00	6.61	**132***	5.00	5.59	112	74.0-124	17	30.00
1,1,1-Trichloroethane	5.00	5.83	117	5.00	5.77	115	76.0-119	1.0	30.00
Carbon tetrachloride	5.00	5.89	118	5.00	5.67	113	75.0-120	3.8	30.00
1,1-Dichloropropene	5.00	5.32	106	5.00	5.47	109	76.0-124	2.8	30.00
Benzene	5.00	5.53	111	5.00	5.43	109	76.0-124	1.8	30.00
1,2-Dichloroethane	5.00	5.86	117	5.00	5.56	111	76.0-119	5.3	30.00
Trichloroethene	5.00	5.25	105	5.00	5.19	104	74.0-121	1.1	30.00
1,2-Dichloropropane	5.00	5.29	106	5.00	5.49	110	74.0-124	3.7	30.00
Dibromomethane	5.00	5.07	101	5.00	5.49	110	71.0-128	8.0	30.00
Bromodichloromethane	5.00	5.65	113	5.00	5.42	108	72.0-120	4.2	30.00
cis-1,3-Dichloropropene	5.00	5.11	102	5.00	4.98	100	73.0-122	2.6	30.00
Toluene	5.00	5.12	102	5.00	5.45	109	75.0-123	6.2	30.00
trans-1,3-Dichloropropene	5.00	5.30	106	5.00	5.07	101	70.0-125	4.4	30.00
1,1,2-Trichloroethane	5.00	5.71	114	5.00	5.68	114	76.0-121	0.53	30.00
Tetrachloroethene	5.00	5.50	110	5.00	5.51	110	59.0-112	0.18	30.00
1,3-Dichloropropane	5.00	5.70	114	5.00	5.59	112	74.0-120	1.9	30.00
Dibromochloromethane	5.00	5.65	113	5.00	5.29	106	67.0-122	6.6	30.00
1,2-Dibromoethane	5.00	5.46	109	5.00	5.45	109	74.0-119	0.18	30.00
Chlorobenzene	5.00	5.37	107	5.00	5.36	107	74.0-120	0.19	30.00

Print Date: 09/25/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 29035 [VXX/4021]
Blank Spike Lab ID: 90096
Date Analyzed: 09/19/2012 10:40

Spike Duplicate ID: LCSD for HBN 29035 [VXX/4021]
Spike Duplicate Lab ID: 90097
Date Analyzed: 09/19/2012 11:04
Matrix: Water

QC for Samples: 31202950008

Results by **SM 6200-B**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
1,1,1,2-Tetrachloroethane	5.00	5.62	112	5.00	5.43	109	73.0-119	3.4	30.00
Bromoform	5.00	5.47	109	5.00	5.43	109	62.0-127	0.73	30.00
Bromobenzene	5.00	5.00	100	5.00	5.41	108	75.0-120	7.9	30.00
1,1,2,2-Tetrachloroethane	5.00	5.40	108	5.00	5.20	104	68.0-129	3.8	30.00
1,2,3-Trichloropropane	5.00	5.05	101	5.00	5.19	104	67.0-126	2.7	30.00
Ethyl Benzene	5.00	6.02	120	5.00	5.38	108	76.0-123	11	30.00
m,p-Xylene	10.0	10.8	108	10.0	9.81	98	76.0-124	9.6	30.00
Styrene	5.00	5.43	109	5.00	4.87	97	76.0-121	11	30.00
o-Xylene	5.00	6.03	121	5.00	5.03	101	75.0-124	18	30.00
Isopropylbenzene (Cumene)	5.00	5.60	112	5.00	5.27	105	77.0-120	6.1	30.00
n-Propylbenzene	5.00	5.62	112	5.00	5.07	101	77.0-123	10	30.00
2-Chlorotoluene	5.00	5.52	110	5.00	5.29	106	74.0-127	4.3	30.00
4-Chlorotoluene	5.00	5.52	110	5.00	5.05	101	77.0-123	8.9	30.00
1,3,5-Trimethylbenzene	5.00	5.50	110	5.00	5.20	104	76.0-122	5.6	30.00
tert-Butylbenzene	5.00	5.12	102	5.00	5.12	102	67.0-122	0.0	30.00
1,2,4-Trimethylbenzene	5.00	5.32	106	5.00	5.11	102	76.0-124	4.0	30.00
sec-Butylbenzene	5.00	5.22	104	5.00	5.03	101	78.0-121	3.7	30.00
1,3-Dichlorobenzene	5.00	5.63	113	5.00	5.54	111	75.0-120	1.6	30.00
4-Isopropyltoluene	5.00	5.12	102	5.00	4.86	97	77.0-120	5.2	30.00
1,4-Dichlorobenzene	5.00	5.10	102	5.00	5.25	105	70.0-125	2.9	30.00
1,2-Dichlorobenzene	5.00	5.51	110	5.00	4.83	97	76.0-118	13	30.00
n-Butylbenzene	5.00	4.72	94	5.00	4.49	90	78.0-118	5.0	30.00
1,2-Dibromo-3-chloropropane	30.0	32.9	110	30.0	28.4	95	62.0-130	15	30.00
1,2,4-Trichlorobenzene	5.00	4.73	95	5.00	4.16	83	72.0-119	13	30.00
Hexachlorobutadiene	5.00	5.16	103	5.00	4.32	86	69.0-121	18	30.00
Naphthalene	5.00	4.48	90	5.00	4.15	83	67.0-122	7.6	30.00
1,2,3-Trichlorobenzene	5.00	5.21	104	5.00	4.69	94	21.0-193	11	30.00
Surrogates									
1,2-Dichloroethane-d4			96.8			104	64.0-140		
Toluene d8			95.6			98.9	82.0-117		
4-Bromofluorobenzene			99			103	85.0-115		

Print Date: 09/25/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 29035 [VXX/4021]
Blank Spike Lab ID: 90096
Date Analyzed: 09/19/2012 10:40

Spike Duplicate ID: LCSD for HBN 29035 [VXX/4021]
Spike Duplicate Lab ID: 90097
Date Analyzed: 09/19/2012 11:04
Matrix: Water

QC for Samples: 31202950008

Results by **SM 6200-B**

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

Batch Information

Analytical Batch: **VMS2561**
Analytical Method: **SM 6200-B**
Instrument: **MSD8**
Analyst: **BWS**

Prep Batch: **VXX4021**
Prep Method: **SW-846 5030B**
Prep Date/Time: **09/19/2012 08:52**
Spike Init Wt./Vol.: **40 mL** Extract Vol: **40 mL**
Dupe Init Wt./Vol.: **40 mL** Extract Vol: **40 mL**

Print Date: 09/25/2012

N.C. Certification # 481

Batch Summary

Analytical Method: SW-846 8015C GRO

Prep Method: SW-846 5035
Prep Batch: VXX4033
Prep Date: 09/21/2012 08:45

Client Sample ID	Lab Sample ID	Analysis Date	Analytical Batch	Instrument	Analyst
LCS for HBN 29120 [VXX/4033]	90654	09/21/2012 11:04	VGC2150	GC7	MDY
LCSD for HBN 29120 [VXX/4033]	90655	09/21/2012 11:29	VGC2150	GC7	MDY
MB for HBN 29120 [VXX/4033]	90656	09/21/2012 11:55	VGC2150	GC7	MDY
19-1 (7.5-10)	31202950001	09/21/2012 13:35	VGC2150	GC7	MDY
19-2 (5-7.5)	31202950002	09/21/2012 15:17	VGC2150	GC7	MDY
19-3 (7.5-10)	31202950003	09/21/2012 15:42	VGC2150	GC7	MDY
19-4 (3-5)	31202950004	09/21/2012 16:07	VGC2150	GC7	MDY
19-5 (3-5)	31202950005	09/21/2012 16:32	VGC2150	GC7	MDY
19-6 (7.5-10)	31202950006	09/21/2012 16:58	VGC2150	GC7	MDY
19-7 (5-7.5)	31202950007	09/21/2012 17:23	VGC2150	GC7	MDY
3DPT-04 (2-3ft)(89899MS)	91068	09/21/2012 20:44	VGC2150	GC7	MDY
3DPT-04 (2-3ft)(89899MSD)	91069	09/21/2012 21:10	VGC2150	GC7	MDY

Method Blank

Blank ID: MB for HBN 29120 [VXX/4033]
Matrix: Soil-Solid as dry weight
Blank Lab ID: 90656
QC for Samples:
31202950001, 31202950002, 31202950003, 31202950004, 31202950005, 31202950006, 31202950007

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Gasoline Range Organics (GRO)	ND	U	4.00	4.00	mg/kg	1
Surrogates						
4-Bromofluorobenzene	102			70.0-130	%	1

Batch Information

Analytical Batch: VGC2150
Analytical Method: SW-846 8015C GRO
Instrument: GC7
Analyst: MDY

Prep Batch: VXX4033
Prep Method: SW-846 5035
Prep Date/Time: 9/21/2012 8:45:36AM
Prep Initial Wt./Vol.: 5 g
Prep Extract Vol: 5 mL

Print Date: 09/25/2012
N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 29120 [VXX/4033]
Blank Spike Lab ID: 90654
Date Analyzed: 09/21/2012 11:04

Spike Duplicate ID: LCSD for HBN 29120 [VXX/4033]
Spike Duplicate Lab ID: 90655
Date Analyzed: 09/21/2012 11:29
Matrix: Soil-Solid as dry weight

QC for Samples: 31202950001, 31202950002, 31202950003, 31202950004, 31202950005, 31202950006, 31202950007

Results by **SW-846 8015C GRO**

	Blank Spike (mg/kg)			Spike Duplicate (mg/kg)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Gasoline Range Organics (GRO)	16.0	15.9	99	16.0	16.6	103	70.0-130	4.3	30.00
Surrogates									
4-Bromofluorobenzene			104			102	70.0-130		

Batch Information

Analytical Batch: **VGC2150**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**

Prep Batch: **VXX4033**
Prep Method: **SW-846 5035**
Prep Date/Time: **09/21/2012 08:45**
Spike Init Wt./Vol.: **5 g** Extract Vol: **5 mL**
Dupe Init Wt./Vol.: **5 g** Extract Vol: **5 mL**

Print Date: 09/25/2012

N.C. Certification # 481

Batch Summary

Analytical Method: SW-846 8015C DRO

Prep Method: SW-846 3541
Prep Batch: XXX3067
Prep Date: 09/19/2012 11:45

Client Sample ID	Lab Sample ID	Analysis Date	Analytical Batch	Instrument	Analyst
MB for HBN 29051 [XXX/3067]	90167	09/20/2012 02:53	XGC2541	GC6	DTF
LCS for HBN 29051 [XXX/3067]	90168	09/20/2012 03:21	XGC2541	GC6	DTF
19-1 (7.5-10)	31202950001	09/21/2012 02:46	XGC2545	GC6	DTF
19-2 (5-7.5)	31202950002	09/21/2012 03:14	XGC2545	GC6	DTF
19-3 (7.5-10)	31202950003	09/21/2012 03:42	XGC2545	GC6	DTF
19-4 (3-5)	31202950004	09/21/2012 05:08	XGC2545	GC6	DTF
19-5 (3-5)	31202950005	09/21/2012 05:37	XGC2545	GC6	DTF
19-6 (7.5-10)	31202950006	09/21/2012 06:05	XGC2545	GC6	DTF
19-4 (3-5)(89755MS)	90169	09/21/2012 06:34	XGC2545	GC6	DTF
19-4 (3-5)(89755MSD)	90170	09/21/2012 07:02	XGC2545	GC6	DTF

Method Blank

Blank ID: MB for HBN 29051 [XXX/3067]
Matrix: Soil-Solid as dry weight
Blank Lab ID: 90167
QC for Samples:
31202950001, 31202950002, 31202950003, 31202950004, 31202950005, 31202950006

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Diesel Range Organics (DRO)	ND	U	6.25	6.25	mg/kg	1
Surrogates						
o-Terphenyl	111			40.0-140	%	1

Batch Information

Analytical Batch: XGC2541
Analytical Method: SW-846 8015C DRO
Instrument: GC6
Analyst: DTF

Prep Batch: XXX3067
Prep Method: SW-846 3541
Prep Date/Time: 9/19/2012 11:45:21AM
Prep Initial Wt./Vol.: 32 g
Prep Extract Vol: 10 mL

Print Date: 09/25/2012
N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 29051 [XXX/3067]
Blank Spike Lab ID: 90168
Date Analyzed: 09/20/2012 03:21

Matrix: Soil-Solid as dry weight

QC for Samples: 31202950001, 31202950002, 31202950003, 31202950004, 31202950005, 31202950006

Results by **SW-846 8015C DRO**

Blank Spike (mg/kg)

Parameter	Spike	Result	Rec (%)	CL
Diesel Range Organics (DRO)	62.5	54.0	86	55.0-137
Surrogates				
o-Terphenyl			112	40.0-140

Batch Information

Analytical Batch: **XGC2541**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3067**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/19/2012 11:45**
Spike Init Wt./Vol.: **32 g** Extract Vol: **10 mL**
Dupe Init Wt./Vol.: Extract Vol:

Print Date: 09/25/2012

N.C. Certification # 481

Matrix Spike Summary

Original Sample ID: 31202950004 (19-4 (3-5))
MS Sample ID: 90169
MSD Sample ID: 90170

Analysis Date: 09/21/2012 05:08
Analysis Date: 09/21/2012 06:34
Analysis Date: 09/21/2012 07:02
Matrix: Soil-Solid as dry weight

QC for Samples: 31202950001, 31202950002, 31202950003, 31202950004, 31202950005, 31202950006

Results by **SW-846 8015C DRO**

		Matrix Spike (mg/kg)			Spike Duplicate (mg/kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Diesel Range Organics (DRO)	ND	77.6	73.0	94	76.4	66.3	87	40.0-140	9.5	30.00
Surrogates										
o-Terphenyl				96.9			105	40.0-140		

Batch Information

Analytical Batch: **XGC2545**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3067**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/19/2012 11:45**
MS Init Wt./Vol.: **32.2 g** Extract Vol.: **10 mL**
MSD Init Wt./Vol.: **32.76 g** Extract Vol.: **10 mL**

Print Date: 09/25/2012

N.C. Certification # 481

Batch Summary

Analytical Method: SW-846 8015C DRO

Prep Method: SW-846 3541
Prep 2atch: XXX3068
Prep Date: 079179 01/ 11:50

Client SaB ple rD	uaL SaB ple rD	AnalyI il Date	Analytical 2atch	ml trsB ent	AnalyI t
M2 lor f 2H / 705/ NXXX3068[	701F4	079 09 01/ 18:43	X] C/ 545	] C6	DGT
uCS lor f 2H / 705/ NXXX3068[	701F5	079 09 01/ 17:1/	X] C/ 545	] C6	DGT
17-F (5-F.5)	31/ 0/ 75000F	079 19 01/ 0F:5F	X] C/ 545	] C6	DGT
1 DPG-03 (1-/ lt)(87706MS)	701F6	079 / 9 01/ 00:/ 8	X] C/ 550	] C6	DGT
1 DPG-03 (1-/ lt)(87706MSD)	701FF	079 / 9 01/ 00:56	X] C/ 550	] C6	DGT

Print Date: 079 59 01/

H.C. Certibcation # 481

Method Blank

Blank ID: MB for HBN 29052 [XXX/3068]
Blank Lab ID: 90174
QC for Samples:
31202950007

Matrix: Soil-Solid as dry weight

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Diesel Range Organics (DRO)	ND	U	6.25	6.25	mg/kg	1
Surrogates						
o-Terphenyl	110			40.0-140	%	1

Batch Information

Analytical Batch: XGC2545
Analytical Method: SW-846 8015C DRO
Instrument: GC6
Analyst: DTF

Prep Batch: XXX3068
Prep Method: SW-846 3541
Prep Date/Time: 9/19/2012 11:50:27AM
Prep Initial Wt./Vol.: 32 g
Prep Extract Vol: 10 mL

Print Date: 09/25/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 29052 [XXX/3068]
Blank Spike Lab ID: 90175
Date Analyzed: 09/20/2012 19:12

Matrix: Soil-Solid as dry weight

QC for Samples: 31202950007

Results by **SW-846 8015C DRO**

Blank Spike (mg/kg)

Parameter	Spike	Result	Rec (%)	CL
Diesel Range Organics (DRO)	62.5	64.7	103	55.0-137
Surrogates				
o-Terphenyl			115	40.0-140

Batch Information

Analytical Batch: **XGC2545**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3068**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/19/2012 11:50**
Spike Init Wt./Vol.: **32 g** Extract Vol: **10 mL**
Dupe Init Wt./Vol.: Extract Vol:

Print Date: 09/25/2012

N.C. Certification # 481

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• New Jersey • New York
• North Carolina • Ohio

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104683

CLIENT: ~~Pyramid Env~~ NCDOT - 39017.1.1
CONTACT: Tim Leatherman
PHONE NO: 336 335-3174
PROJECT: Ray Rd. Parcel 019
SITE/PWSID#:
REPORTS TO: Tim Leatherman
Pyramid Environmental
FAX NO.: ( )
INVOICE TO: NCDOT Gordon Box U-3465 39017.1.1
QUOTE #: NCDOT U-3465
P.O. NUMBER: WBS 39017.1.1

SGS Reference: 31202950

PAGE 1 OF 1

Preservatives Used: MeOH, None, HCl
Analysis Required: 5035-GRO, 3550-DRO, 6200B

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE (C=COMP, G=GRAB)	5035-GRO	3550-DRO	6200B	REMARKS
	19-1(7.5-10)	9/12/12	14:30	Soil	3	G	X	X		
	19-2(5-7.5)	9/12/12	16:00	Soil	3	G	X	X		
	19-3(7.5-10)	9/12/12	14:35	Soil	3	G	X	X		
	19-4(3-5)	9/12/12	14:40	Soil	3	G	X	X		
	19-5(3-5)	9/12/12	14:50	Soil	3	G	X	X		
	19-6(7.5-10)	9/12/12	15:00	Soil	3	G	X	X		
	19-7(5-7.5)	9/12/12	15:50	Soil	3	G	X	X		
	19-2(TW)	9/12/12	17:00	Water	3	G			X	

Collected/Relinquished By:	Date	Time	Received By:
(1) [signature]	9.13.12	17:30	[signature]
(2) [signature]	9/14/12	1530	[signature]
(3) [signature]	9/17/12	0840	[signature]
(4)			

Shipping Carrier:
Shipping Ticket No:
Special Deliverable Requirements:
Special Instructions:
Requested Turnaround Time: ☐ RUSH ______ Date Needed ☒ STD

Samples Received Cold? (Circle) (YES) NO
Temperature °C: 0.1°C
Chain of Custody Seal: (Circle) INTACT BROKEN (ABSENT)

❑ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
❑ 5500 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557

White - Retained by Lab
Pink - Retained by Client

SGS North America Inc.

Sample Receipt Checklist (SRC)

Client: **NCDOT-Pyramid** Work Order No.: **31202950**

1. ___ Shipped
   _X_ Hand Delivered

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

3. ___ Custody Tape on Container
   _X_ No Custody Tape

4. _X_ Samples Intact
   ___ Samples Broken / Leaking

5. _X_ Chilled on Receipt Actual Temp.(s) in °C: 0.1
   ___ Ambient on Receipt
   _X_ Walk-in on Ice; Coming down to temp.
   ___ Received Outside of Temperature Specifications

6. _X_ Sufficient Sample Submitted
   ___ Insufficient Sample Submitted

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

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

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

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

Notes:

Comments:

Inspected and Logged in by: JJ

Date: Mon-9/17/12 00:00

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

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104683

(1) CLIENT: ~~Pyramid Env~~ NCDOT - 39017.1.1

CONTACT: Tim Leatherman PHONE NO: 336 335-3174

PROJECT: Ray Rd, Parcel 019 SITE/PWSID# :

REPORTS TO: Tim Leatherman

Pyramid Environmental FAX NO.:( )

INVOICE TO: NCDOT Gordon Box QUOTE #: NCDOT U-3465

U-3465 39017.1.1 P.O. NUMBER: WBS 39017.1.1

SGS Reference: 3120250

PAGE 1 OF 1

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE (C=COMP, G=GRAB)	Preservatives Used: Methanol / None / HCl	Analysis Required (3): 5035-GRO	3550-DRO	6200B	REMARKS
	19-1(7.5-10)	9/12/12	14:30	Soil	3	G		X	X		
	19-2(5-7.5)	9/12/12	16:00	Soil	3	G		X	X		
	19-3(7.5-10)	9/12/12	14:35	Soil	3	G		X	X		
	14-4(3-5)	9/12/12	14:40	Soil	3	G		X	X		
	19-5(3-5)	9/12/12	14:50	Soil	3	G		X	X		
	19-6(7.5-10)	9/12/12	15:00	Soil	3	G		X	X		
	19-7(5-7.5)	9/12/12	15:50	Soil	3	G		X	X		
	19-2(TW)	9/12/12	17:00	Water	3	G				X	

(5)

Collected/Relinquished By:(1)	Date	Time	Received By:
Timothy Wayne Leatherman	9.13.12	17:30	
Relinquished By: (2)	Date	Time	Received By:
	9/14/12	1530	
Relinquished By: (3)	Date	Time	Received By:
	9/17/12	0840	
Relinquished By: (4)	Date	Time	Received By:

(4)

Shipping Carrier:

Shipping Ticket No:

Samples Received Cold? (Circle) YES NO

Temperature °C: 0.1°C

Special Deliverable Requirements:

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

Special Instructions:

Requested Turnaround Time:

☐ RUSH _____ Date Needed ☒ STD

❑ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
❑ 5500 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557

White - Retained by Lab
Pink - Retained by Client

SGS North America Inc.

Sample Receipt Checklist (SRC)

Client: **NCDOT-Pyramid** Work Order No.: **31202950**

1. ___ Shipped
   X Hand Delivered

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

3. ___ Custody Tape on Container
   X No Custody Tape

4. X Samples Intact
   ___ Samples Broken / Leaking

5. X Chilled on Receipt Actual Temp.(s) in °C: 0.1
   ___ Ambient on Receipt
   X Walk-in on Ice; Coming down to temp.
   ___ Received Outside of Temperature Specifications

6. X Sufficient Sample Submitted
   ___ Insufficient Sample Submitted

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

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

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

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

Notes:

Comments:

Inspected and Logged in by: JJ

Date: Mon-9/17/12 00:00

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

APPENDIX F

FIELD PERSONNEL LOG

PROJECT NAME: NCDOT Harnett County ROW
TRACTS: ALL

PROJECT NO.: U-3465

Name: Tim Leatherman **Date:** 9/4/12 **Mon** [**Tue**] **Wed Th Fri Sat Sun**

TASKS PERFORMED:

11:00 to 12:00 Load

12:30 to 13:00 Lunch

13:00 to 14:30 Travel to Ray Road Sites/Parcels.

14:30 to 17:00 Talked with property tenants and property owners for Parcels 004, 019, 021, 022, 038, and 071. Granted access to all Parcels, but Parcel 071. Denied access to Parcel 071.

FIELD PERSONNEL LOG

PROJECT NAME: NCDOT Harnett County ROW TRACTS: 9,19,22,38 **PROJECT NO.:** U-3465

Name: Tim Leatherman **Date:** 9/5/12 **Mon Tue Wed Th Fri Sat Sun**

TASKS PERFORMED:

8:00 to 9:00 a.m. Meet Eric at Parcel 019 and 022 about starting Geophysics surveys.

9:00 to 9:30 a.m. Talked to property owner and store manager about access to Parcel 038. Property owner and store manager granted access to Parcel 038.

9:30 to 10:30 a.m. Talked to store manager for Parcel 009. Store manager gave me additional contact information for access to Parcel 009.

10:30 to 13:00 Travel back to Office and unload.

FIELD PERSONNEL LOG

PROJECT NAME: NCDOT Harnett County ROW TRACTS:19,21 **PROJECT NO.:** U-3465

Name: Eric Cross/Alan McFadden **Date:** 9/5/12 **Mon Tue Wed Th Fri Sat Sun**

TASKS PERFORMED:

Performed geophysical surveys using EM61 magnetometer at Parcels 021and 019. Performed geophysical data analysis/processing in field and from home office in evening.

FIELD PERSONNEL LOG

PROJECT NAME: NCDOT Harnett County ROW TRACTS:19,21,22,69 **PROJECT NO.:** U-3465

Name: Eric Cross/Alan McFadden **Date:** 9/6/12 **Mon Tue Wed Th Fri Sat Sun**

TASKS PERFORMED:

Performed geophysical surveys using EM61 magnetometer and/or GSSI SIR 2000 ground penetrating radar equipment at Parcels 019, 021, 022, and 069. Performed geophysical data analysis/processing in field and from home office in evening.

FIELD PERSONNEL LOG

PROJECT NAME: NCDOT Harnett County ROW TRACTS: ALL **PROJECT NO.:** U-3465

Name: Tim Leatherman **Date:** 9/10/12 **Mon** **Tue Wed Th Fri Sat Sun**

TASKS PERFORMED:

9:00 to 11:00 Load and Travel to Parcel 038

11:00 to 12:00 Helped Eric with Geophysics Survey at Parcel 038

12:00 to 13:00 Meet with Public Utility Locators at Parcels 004, 009, 019, 021, 022, 038, & 069.

13:00 to 13:30 Lunch

13:30 to 18:00 Helped Eric with Geophysics Survey at Parcels 038 and 009.

FIELD PERSONNEL LOG

PROJECT NAME: NCDOT Harnett County ROW TRACTS: ALL **PROJECT NO.:** U-3465

Name: Tim Leatherman **Date:** 9/11/12 **Mon Tue Wed Th Fri Sat Sun**

TASKS PERFORMED:

8:00 to 9:00 Meet private utility locator North State Locating at Parcels 019 & 021. Discussed project with them and looked at Parcels 004, 009, 019, 021, 022, 038, and 069.

9:00 to 13:00 Travel and NCDENR File Review at the Fayetteville Regional Office

13:00 to 13:30 Discussed the utilities found at each site with utility locators.

13:30 to 14:00 Lunch

14:00 to 15:00 Go over the preliminary geophysical results with Eric for each site/parcel.

15:00 to 17:00 Travel back to office and home to pickup sampling supplies.

FIELD PERSONNEL LOG

PROJECT NAME: NCDOT Harnett County ROW TRACTS: 4,19,21 **PROJECT NO.:** U-3465

Name: Tim Leatherman **Date:** 9/12/12 **Mon Tue Wed Th Fri Sat Sun**

TASKS PERFORMED:

7:00 to 9:00 Travel from office; meet drillers at Parcel 004. Decided to started soil sampling/drilling at Parcel 021.

9:00 to 13:30 Completed 9 soil borings a Parcel 021 with one hour lunch

13:30 to 18:00 Completed 7 soil borings a Parcel 019

FIELD PERSONNEL LOG

PROJECT NAME: NCDOT Harnett County ROW TRACTS: 19,21,22,38,69 **PROJECT NO.:** U-3465

Name: Tim Leatherman **Date:** 9/13/12 **Mon Tue Wed [Th] Fri Sat Sun**

TASKS PERFORMED:

8:00 to 8:45 Site notes and measurements for Parcels 019 and 021. Site measurements for soil boring locations.

8:45 to 11:30 Completed 4 soil borings a Parcel 022 and measured soil boring locations.

11:30 to 12:30 Lunch

12:30 to 15:15 Installed 3 soil borings and collects soil samples at Parcel 069.

15:15 to 17:30 Completed 3 soil borings and collected soil samples at Parcel 038. Finalized COCs, packed samples in coolers, and Adam with SGS Laboratories picked up samples.