PRELIMINARY SITE ASSESSMENT

PARCEL #139, BJ'S WHOLESALE PROPERTY
CHARLOTTE – US 74 (INDEPENDENCE BOULEVARD) FROM NC 24 - 27
(ALBEMARLE ROAD) TO IDLEWILD ROAD
MECKLENBURG COUNTY, NORTH CAROLINA

NCDOT WBS ELEMENT 3479.1.1 STATE PROJECT U-0209B

August 20, 2010

Prepared for:

Ethan J. Caldwell, L.G., P. E.
North Carolina Department of Transportation
Geotechnical Engineering Unit
GeoEnvironmental Section
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

Prepared by:

Kleinfelder Southeast, Inc. 313 Gallimore Dairy Road Greensboro, North Carolina 27409

Kleinfelder Project No. 111989

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August 20, 2010 File No. 111989 | GSO10R162

Ethan J. Caldwell, L.G., P. E. North Carolina Department of Transportation 1589 Mail Service Center Raleigh, North Carolina 27699-1589

Reference: **Preliminary Site Assessment**

WBS Element No. 34749.1.1, State Project U-0209B

Parcel #139, BJ's Wholesale Property Mecklenburg County, North Carolina

Dear Mr. Caldwell:

Please find enclosed a report summarizing the sampling activities for the preliminary site assessment conducted at the referenced site. Laboratory analysis of soil samples collected at the site detected contaminant concentrations exceeding the State action levels in two of five samples. This report summarizes our field activities, results, laboratory report, and conclusions.

Should questions arise or additional information be required, please contact the undersigned.

Sincerely,

Kleinfelder Southeast, Inc.

Annamarie Blauser Staff Professional I

John M. Stewart, P.G. Senior Professional

AB/JMS:cas Enclosure

PRELIMINARY SITE ASSESSMENT

Site Name and Location: Parcel #139, BJ's Wholesale Property

6030 E. Independence Boulevard Charlotte, Mecklenburg County, North

Carolina

Latitude and Longitude: 35° 10′ 43″ N, 80° 45′ 13″ W

Facility ID Number: 0-025164

NCDOT Project No.: NCDOT WBS Element 34749.1.1

State Project U-0209B

Date of Report: August 20, 2010

Consultant: Kleinfelder

313 Gallimore Dairy Road

Greensboro, North Carolina 27409

Attn: Mr. John M. Stewart Phone: 336.668.0093 X115

Seal and Signature of Certifying Licensed Geologist

I, John M. Stewart, a Licensed Geologist for Kleinfelder Southeast, Inc., do certify that the information contained in this report is correct and accurate to the best of my knowledge.

John M. Stervart, NC License No. 8

20/0

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1.0 INTRODUCTION

Kleinfelder Southeast, Inc. (Kleinfelder) has prepared this Preliminary Site Assessment (PSA) report documenting assessment activities performed at the BJ's Wholesale property (Parcel 139) located at 6030 East Independence Boulevard (US 74) in Charlotte, Mecklenburg County, North Carolina (Figure 1). This assessment was conducted on behalf of the North Carolina Department of Transportation (NCDOT) in accordance with Kleinfelder's June 15, 2010 proposal.

NCDOT is proposing to widen US 74 (Independence Boulevard) from NC 24-27 (Albemarle Road) to Idlewild Road and construct a bridge with on and off ramps accessing Idlewild Road. The proposed right-of-way is located along the east side BJ's Wholesale property (Figure 2). There is concern that contaminated soils could be encountered during the construction activities at this site.

The purpose of this assessment was to determine the presence or absence of impacted soil at the subject property in proposed right-of-way construction areas related to the widening of US 74 (Independence Boulevard) from NC 24-27 (Albemarle Road) to Idlewild Road.

1.1 Site Description

The proposed right-of-way is located along the eastern side of property owned by St. Hore Investments, Morgan Browning Equity. At the time of our site reconnaissance, this parcel was occupied by a commercial wholesale store and gas station (BJ's Wholesale, Facility ID No. 0-025164). However, the proposed right-of-way only includes the entrance area of the BJ's parking lot and the area north of a former gasoline station. Site photographs are shown in Appendix A.

1.2 Site Location

The property is bound to the north by a Wendy's Restaurant and to the east by Independence Boulevard and further east by an automotive dealership. The property is bound to the south by a Kentucky Fried Chicken restaurant and a Carpet Discount Warehouse and to the west by the BJ's Wholesale store.

1.3 NCDENR File Review

Kleinfelder reviewed archived files at the North Carolina Department of Environment and Natural Resources (NCDENR) Mooresville Regional Office. Archived files are generally for those incidents that have been closed. Information in the file indicated that two gasoline USTs were formerly located approximately 120 feet west of Independence Boulevard, or approximately fifty to sixty feet west of the proposed right-of-way. Documented information indicates there was a release associated with the USTs and the release was given Incident Number 12618. The incident has been given a No Further Action determination.

2.0 SITE ASSESSMENT

2.1 Geophysical Investigation

Pyramid Environmental & Engineering, P.C (Pyramid) conducted a geophysical investigation of the proposed right-of-way area on the east side of the property on June 24, 2010. Pyramid utilized electromagnetic (EM) induction technology to identify potential geophysical anomalies and potential USTs at the site. A more detailed description of their scope of work is explained in their Geophysical Investigation Report included in Appendix B. Prior to drilling the soil borings, buried utilities were marked by NC One Call and Taylor Wiseman & Taylor (TWT).

2.2 Soil Sampling

To determine if contaminated soil may be encountered during the proposed construction activities, soil samples were collected along the east side of the BJ's Wholesale property. Kleinfelder met Probe Technology at the BJ's Wholesale property on July 19, 2010; Probe Technology advanced five soil borings (B-1 to B-5) by direct push technology (DPT). The approximate locations of the borings are shown on Figure 3. Copies of the boring logs are included in Appendix C.

Soil borings were advanced to a depth of ten feet below the ground surface (bgs). The borings were located along the proposed drainage in the right-of-way. Soil samples were collected by driving a macrocore sampler in 5-foot intervals in each boring. Each 5-foot sample sleeve was divided in half and screened for volatile organic compounds

in the field using a MiniRae 2000 photo-ionization detector (PID). In each boring, the soil interval with the highest PID reading was collected for laboratory analysis. If no organic vapors were detected, the sample collected from the bottom of the boring was submitted for analysis. The PID readings are summarized in Table 1. Copies of the boring logs are included in Appendix C.

Prior to the initial boring and after each subsequent boring, the sampling equipment was decontaminated. The soil samples collected for laboratory analysis were analyzed for total petroleum hydrocarbons (TPH) similar to diesel and gasoline (DRO/GRO) using EPA Method 8015B following 3550 and 5035 preparation. All soil samples were placed into laboratory provided jars, labeled, and maintained on ice until delivered to Prism laboratories, a NCDOT contract laboratory for chemical analysis.

3.0 RESULTS

3.1 Geophysical Investigation

Pyramid's results indicate that the EM investigation did not detect unknown metallic USTs within the survey area. Pyramid's report is included in Appendix B.

3.2 Soil Samples

Diesel range organics (DRO) were detected at concentrations above the State action level of 10 milligrams per kilogram in soil sample B-3 (7.5-10ft) and B-4 (7.5-10ft). Gasoline range organics (GRO) were detected at concentrations above the State action level in soil sample B-3 (7.5-10ft) TPH were not detected at concentrations above the method detection limits in the remainder of the soil samples. The laboratory results are summarized in Table 2 and on Figure 3. The laboratory report and associated chain-of-custody document are included in Appendix D.

Based on Laboratory analytical results and PID readings, petroleum impacted soils are present on Parcel 139 within the proposed right-of-way (borings B-3 and B-4) area on the east side of the property. The two borings are located near existing drainage features. The contaminated soil covers an area approximately 1,300 square feet (Figure 4). The contaminated soil is located in a zone 2.5 feet thick (7.5 to 10 feet bgs).

Based upon those dimensions, Kleinfelder estimates that there are roughly 120 cubic yards of impacted soil between a depth of 7.5 and 10 feet near borings B-3 and B-4.

4.0 CONCLUSIONS

Based on results of the laboratory analysis and field observations, Kleinfelder has the following conclusions:

- Groundwater was not encountered in the soil borings.
- Previous investigations at the property determined that two USTS located approximately fifty to sixty feet east of the proposed right-of-way had leaked contaminating the groundwater; however, previous reports determined that groundwater was encountered between 8 and 10 feet below land surface and groundwater was moving under a gradient to the west.
- GRO was detected above the State action level in boring B-3 and B-4 and DRO was detected above the State action level in boring B-3. Petroleum hydrocarbons were not detected at concentrations above the method detection limits in the remainder of the soil samples.
- Based upon the laboratory results, petroleum impacted soil was detected between 7.5 and 10 feet bgs in the area of B-3 and B-4. PID readings did not detect organic vapors in the shallower samples, suggesting the organics detected in the soil samples may be associated with petroleum hydrocarbons in the groundwater (sample depth of 7.5 to 10 feet is likely below the water table or in the smear zone).
- Approximately 120 cubic yards of contaminated soil was identified between borings B-3 and B-4 at a depth of 7.5 to 10 feet. Petroleum contaminated soil could be encountered in soil below a depth of 7.5 feet.

5.0 LIMITATIONS

Our work has been performed in a manner consistent with that level of care and skill ordinarily exercised by other members of Kleinfelder's profession practicing in the same locality, under similar conditions and at the date the services were provided. Our

conclusions, opinions and recommendations are based on a limited number of observations and data. It is possible that conditions could vary between or beyond the data evaluated. Kleinfelder makes no guarantee or warranty, express or implied, regarding the services, communication (oral or written), report, opinion, or instrument of service provided.

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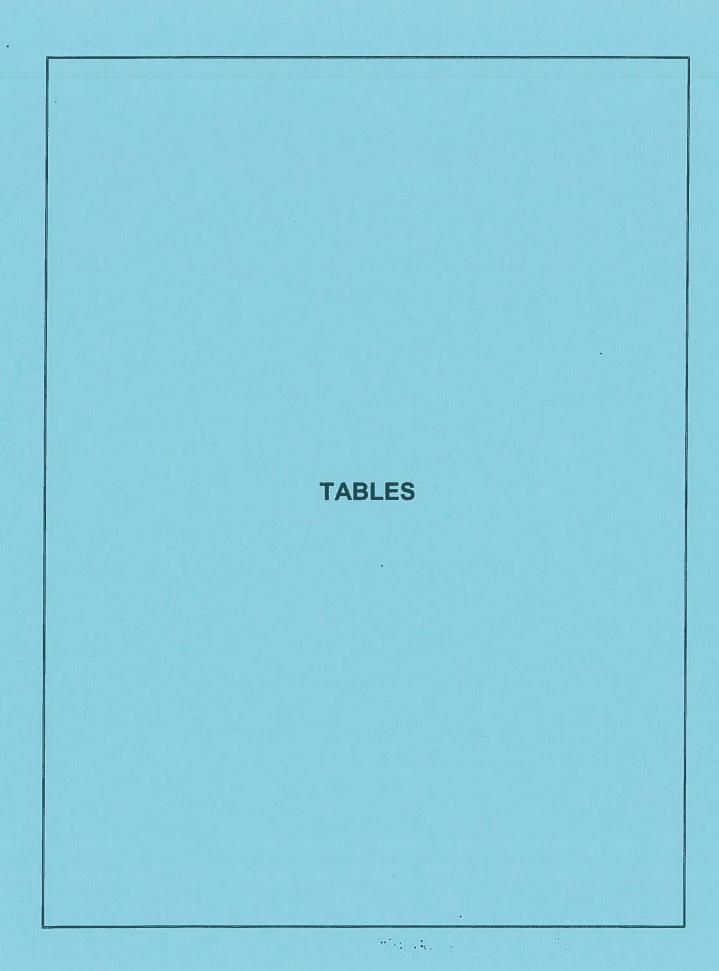


TABLE 1: SOIL SAMPLE PID RESULTS

SAMPLE LOCATION	DEPTH	PID		
SAIVIPLE LOCATION	(feet bgs)	READINGS		
	0.0 - 2.5	0.0		
B-1	2.5 - 5.0	0.0		
D-1	5.0 - 7.5	0.0		
	7.5 - 10.0	0.0		
	0.0 - 2.5	0.0		
B-2	2.5 - 5.0	0.0		
D-2	5.0 - 7.5	0.0		
	7.5 - 10.0	0.0		
	0.0 - 2.5	0.0		
B-3	2.5 - 5.0	0.0		
b-3	5.0 - 7.5	4.7		
	7.5 - 10.0	9.8		
	0.0 - 2.5	0.0		
B-4	2.5 - 5.0	0.0		
D-4	5.0 - 7.5	0.6		
	7.5 - 10.0	54.0		
	0.0 - 2.5	0.0		
B-5	2.5 - 5.0	0.0		
D-3	5.0 - 7.5	0.0		
	7.5 - 10.0	0.0		

Notes:

Samples were collected on July 19, 2010. Readings reported in parts per million feet bgs = feet below ground surface **Bold** = Selected for laboratory analysis

TABLE 2: SOIL SAMPLE ANALYTICAL SUMMARY

SAMPLE ID	COLLECTION DATE	DRO	GRO
B-1 (7.5-10ft)	7/19/2010	BRL	BRL
B-2 (7.5-10ft)	7/19/2010	BRL	BRL
B-3 (7.5-10ft)	7/19/2010	14	210
B-4 (7.5-10ft)	7/19/2010	10	BRL
B-5 (7.5-10ft)	7/19/2010	BRL	BRL
State Action Level		10	10

Notes:

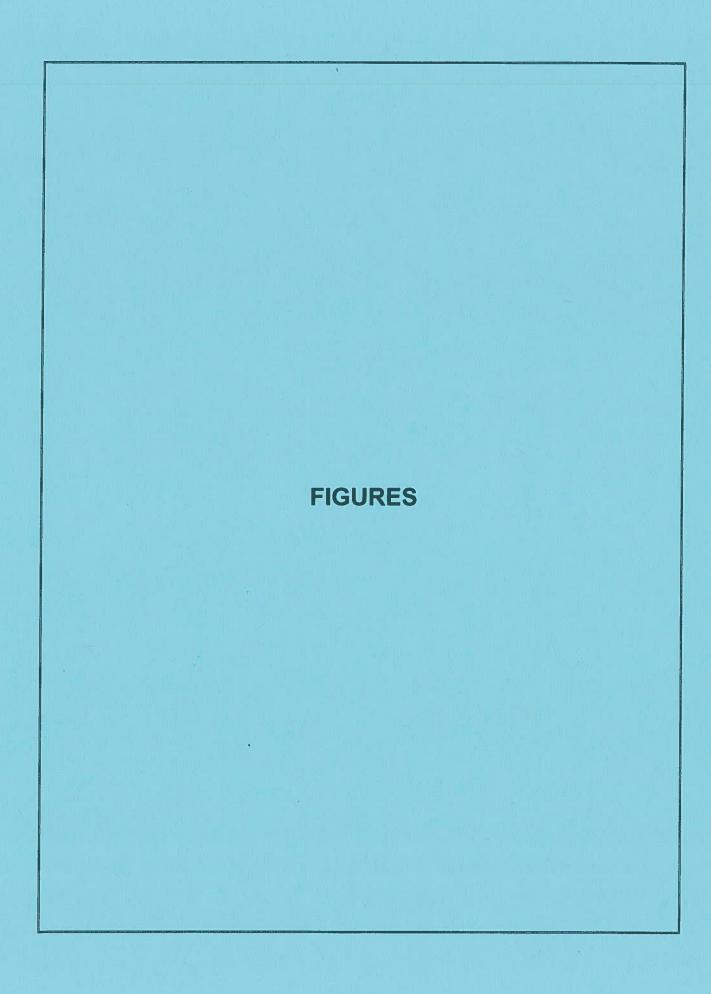
Sample collection depth is indicated in Sample ID, following sequential soil sample number Results presented in milligrams per kilogram, analogous to parts per million

DRO = Diesel Range Organics

GRO = Gasoline Range Organics

BRL = Below reporting limit

Bold denotes concentration exceeds the State Action Level



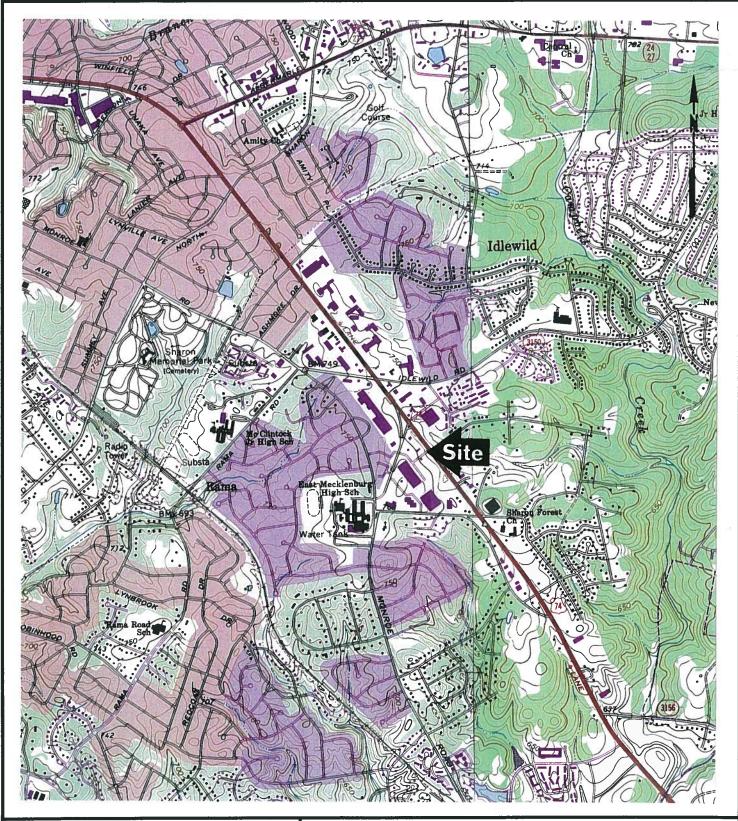




FIGURE 1 SITE LOCATION MAP

PARCEL # 139 – BJ'S PROPERTY 6030 EAST INDEPENDENCE BOULEVARD MECKLENBURG COUNTY, NORTH CAROLINA

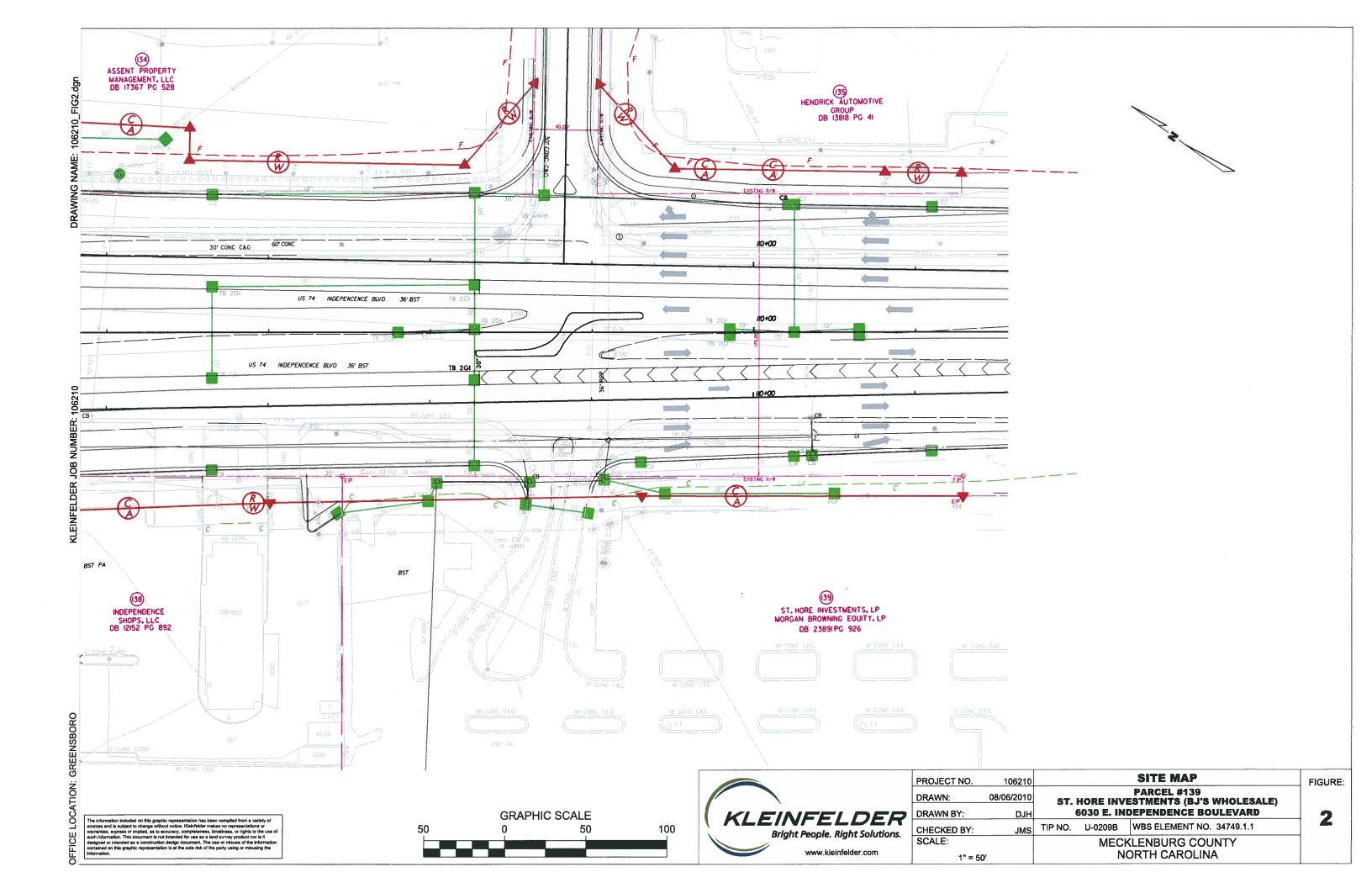
DATE: July 26, 2010

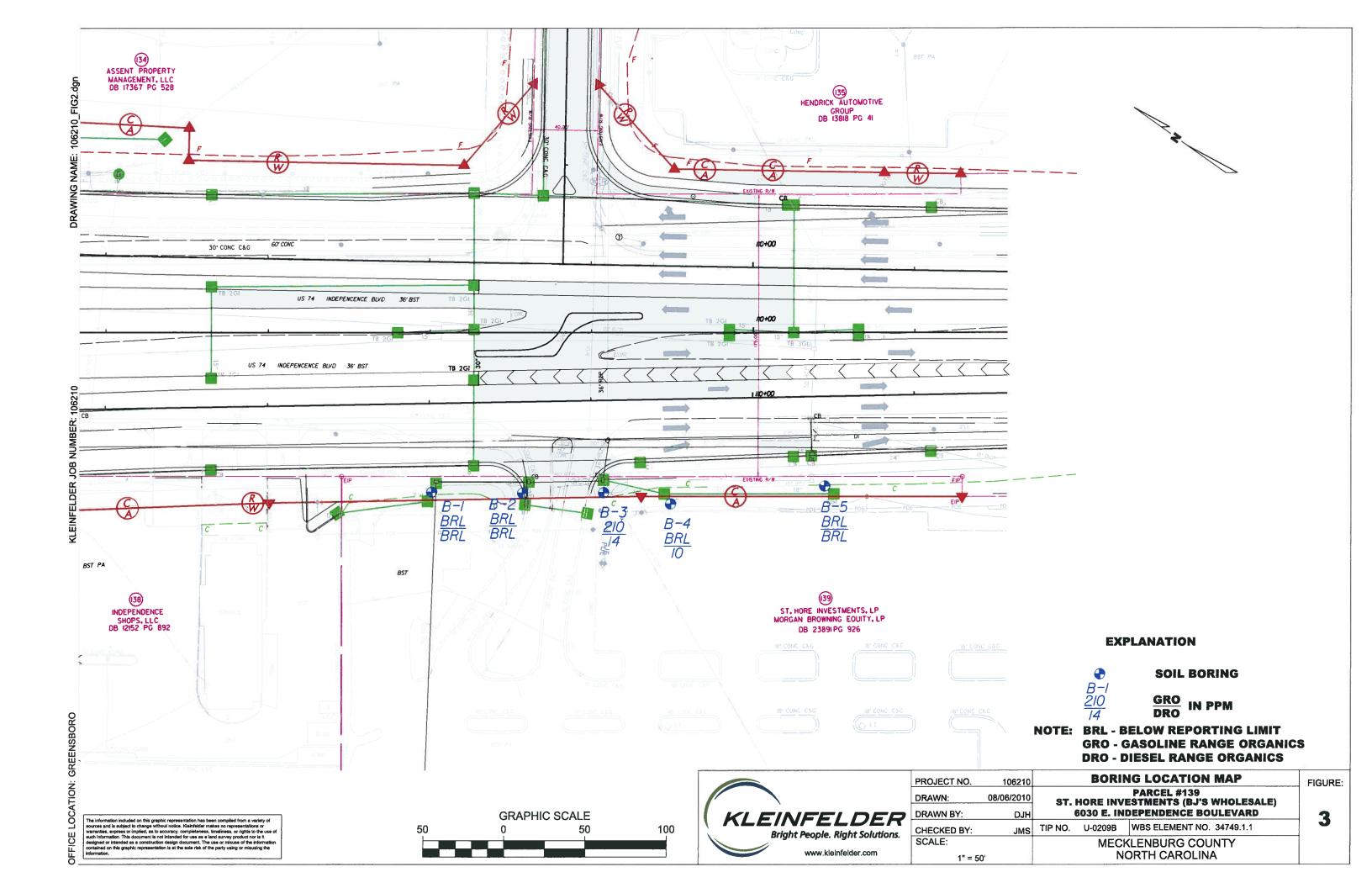
SOURCE: USGS 7.5' Topographic Map, Charlotte East Quadrangle

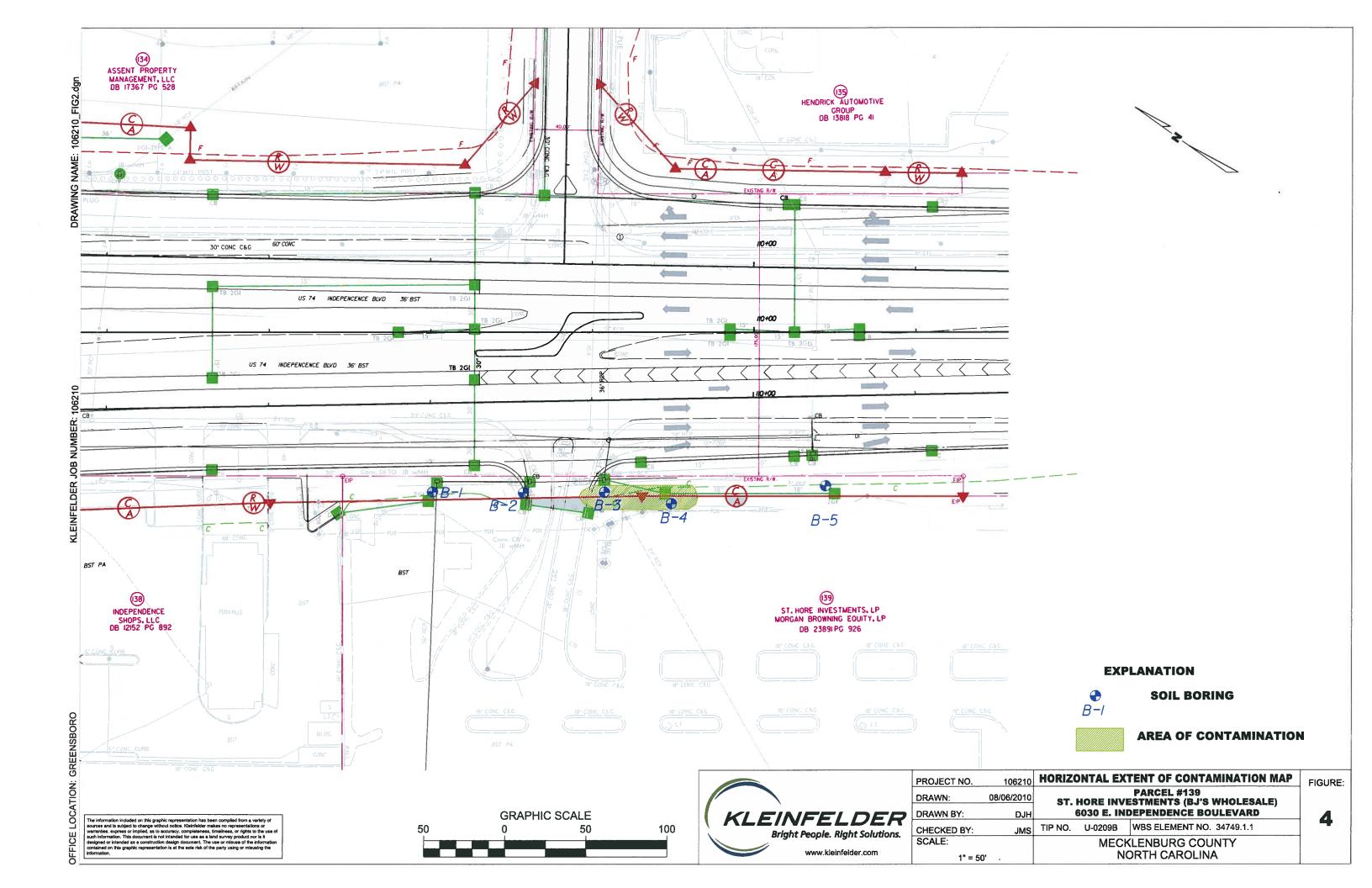
APPROVED
BY:

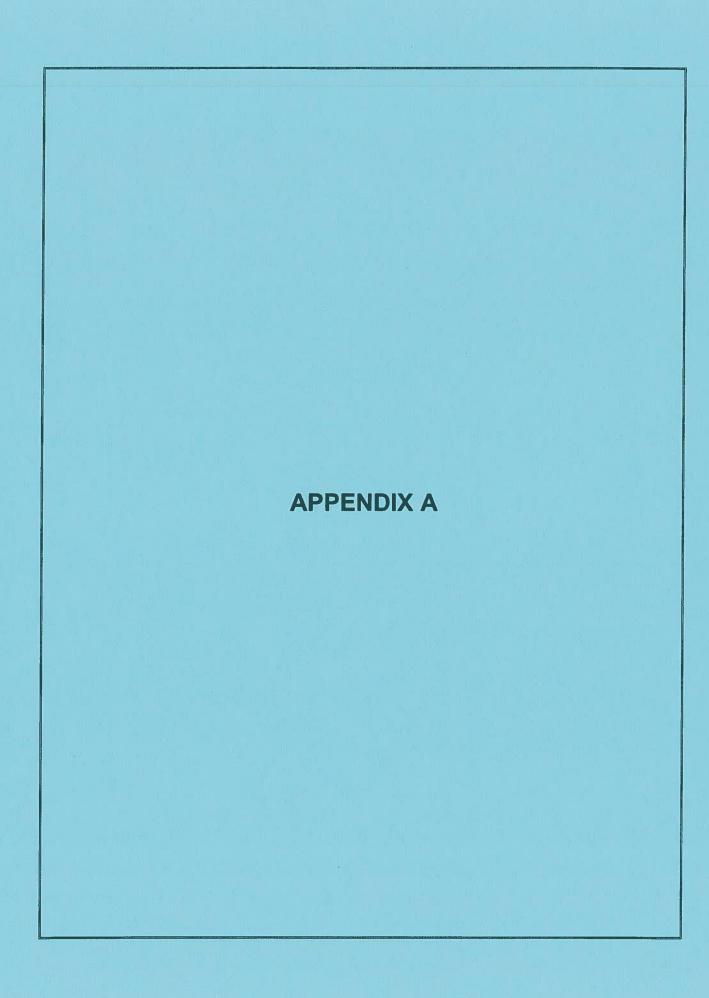
SCALE: 1" to 2,000'

PROJECT NO. 111989









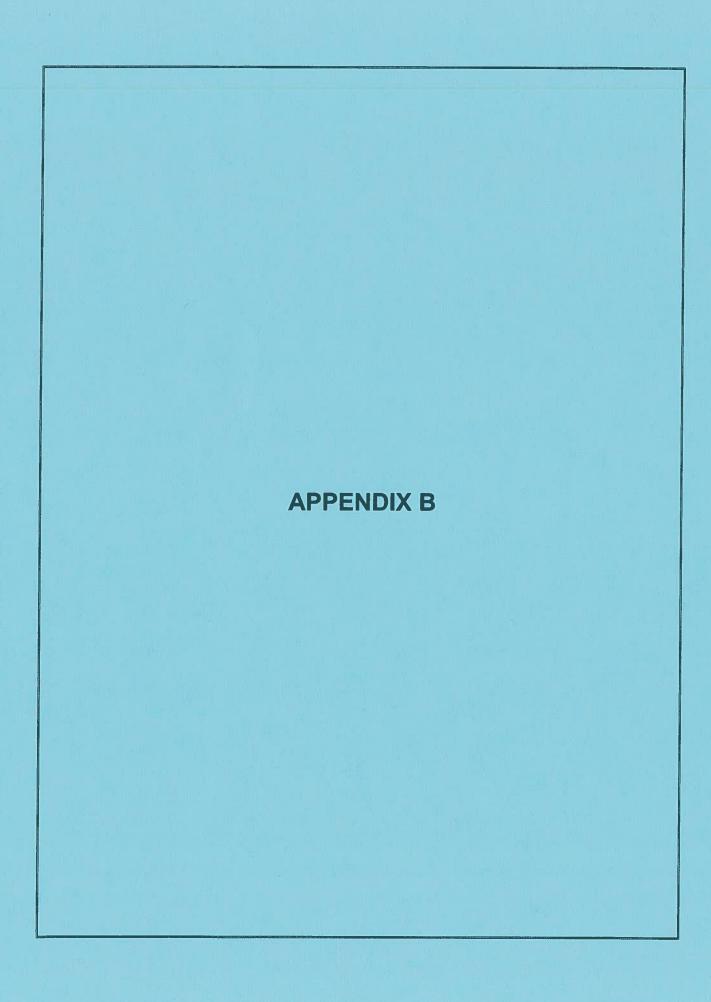
SITE PHOTOGRAPHS KLEINFELDER PROJECT NO. 111989 PARCEL NO. 139



Photograph 1 – View of the east side of the BJ's parking lot looking northeast.



Photograph 2 – View of the southeast side of the BJ's parking lot looking southeast. East Independence Boulevard is shown to the east of the row of trees. Square pavement scar in foreground is the location of an abandoned monitoring well.



GEOPHYSICAL INVESTIGATION REPORT

EM61 SURVEYS

ST. HORORE INVESTMENTS PROPERTY
PARCEL 139
Charlotte, North Carolina

August 10, 2010

Report prepared for:

John Stewart P.G.

Kleinfelder

6200 Harris Technology Boulevard

Charlotte, NC 28269

Prepared by:

Mark J. Denil, P.G.

Reviewed by:

Douglas Canavello, P.G.

PYRAMID ENVIRONMENTAL & ENGINEERING, P.C. P.O. Box 16265 GREENSBORO, NC 27416-0265 (336) 335-3174

Kleinfelder GEOPHYSICAL INVESTIGATION REPORT ST. HORORE INVESTMENTS PROPERTY PARCEL 139

Charlotte, North Carolina

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Figu		
Figu		
Figu	re 3 EM61 Metal Detection – Differential Results	

1.0 INTRODUCTION

Pyramid Environmental conducted a geophysical investigation for Kleinfelder across a portion of the St. Horore Investment property (Parcel 139) located along the southwesterly side of Independence Boulevard approximately 0.35 miles southeast of the Independence Boulevard and Idlewild Road intersection. Conducted on June 24, 2010 the geophysical investigation was performed as part of the North Carolina Department of Transportation (NCDOT) preliminary site assessment project to determine if unknown, metallic underground storage tanks (UST's) were present beneath the area of interest at Parcel 139.

Kleinfelder representative Mr. John Stewart, PE provided site maps during the week of June 1, 2010 that outlined the geophysical survey area of the St. Horore Investments property and Kleinfelder representative Mr. John Lindemann was on site the morning of June 23, 2010 and identified the perimeter of the geophysical survey area to Pyramid Environmental personnel. The geophysical survey area was limited to the grass frontage property along Independence Boulevard, the entrance-exit roads and a portion of the asphalt-covered parking lot that lies along the front portion of the BJ's Warehouse facility. The geophysical survey area had a maximum length and width of 300 feet and 180 feet, respectively. Photographs of the geophysical equipment used in this investigation and a portion of the geophysical survey area at Parcel 139 are shown in **Figure 1**.

2.0 FIELD METHODOLOGY

Prior to conducting the geophysical investigation, a 10-foot by 20-foot survey grid was established across the geophysical survey area (property) using measuring tapes, pin flags 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. The EM survey was performed on June 24, 2010 using a Geonics EM61-MK1 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 northwesterly-southeasterly, 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 DAT61W and Surfer for Windows Version 7.0 software programs.

Due to an absence of metal detection anomalies that may be potential USTs, ground penetrating radar (GPR) surveys were not conducted at this site. Contour plots of the EM61 bottom coil and differential results 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.

Preliminary geophysical results obtained from Parcel 139 were reported to Mr. Stewart on July 14, 2010.

3.0 <u>DISCUSSION OF RESULTS</u>

The linear EM61 bottom coil anomaly intersecting grid coordinates X=200 Y=190 and running parallel to Independence Boulevard is probably in response to buried utility lines. The linear EM61 bottom coil anomalies intersecting grid coordinates X=63 Y=40, X=65 Y=85 and X=217 Y=50 are probably in response to buried lines or conduits. The series of anomalies intersecting grid coordinates X=173 Y=90 and X=250 Y=147 are probably in response to the steel reinforced concrete parking curbs. The negative EM61 differential anomalies centered near grid coordinates X=22 Y=133 and X=30 Y=115 are probably in response to a steel reinforced concrete pad with metallic bollards and a parked vehicle, respectively. The remaining EM61 metal detection anomalies are probably in response to known surface objects.

Due to the absence of additional EM61 differential anomalies that were not in response to known objects, ground penetrating radar surveys were not conducted at this site and the EM61 results suggest that the surveyed portion of Parcel 139 does not contain metallic USTs.

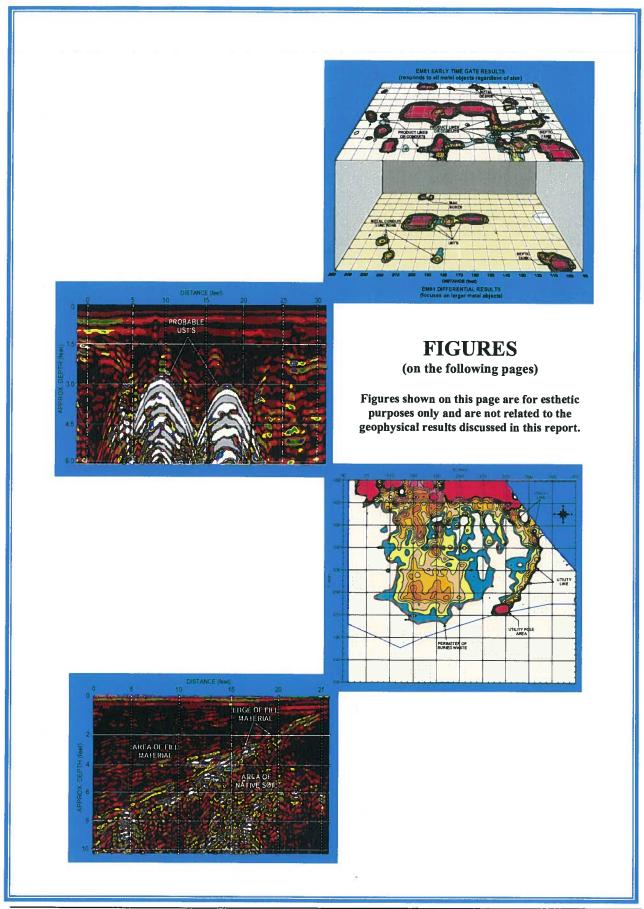
4.0 <u>SUMMARY & CONCLUSIONS</u>

Our evaluation of the EM61 data collected across the geophysical survey area at the St. Horore Investments property (Parcel 139) located in Charlotte, North Carolina, provides the following summary and conclusions:

- The EM61 surveys provided reliable results for the detection of metallic USTs within the surveyed portion of the site.
- The linear EM61 bottom coil anomalies intersecting grid coordinates X=200 Y=190, X=63 Y=40, X=65 Y=85, and X=217 Y=50 are probably in response to buried utility lines or conduits.
- The series of anomalies intersecting grid coordinates X=173 Y=90 and X=250 Y=147 are probably in response to the steel reinforced concrete parking curbs.
- The EM61 results suggest that the surveyed portion of Parcel 139 does not contain metallic USTs.

5.0 LIMITATIONS

EM61 surveys have been performed and this report prepared for Kleinfelder in accordance with generally accepted guidelines for EM61 metal detection surveys. It is generally recognized that the results of the EM61 survey are non-unique and may not represent actual subsurface conditions. The EM61 results obtained for this project have not conclusively determined that the surveyed portion of the site does not contain unknown, buried metallic USTs, but that none were detected.





The photograph shows the Geonics EM61 metal detector that was used to conduct the metal detection survey across the geophysical survey area at the St. Horore Investments property (Parcel 139) on June 24, 2010.



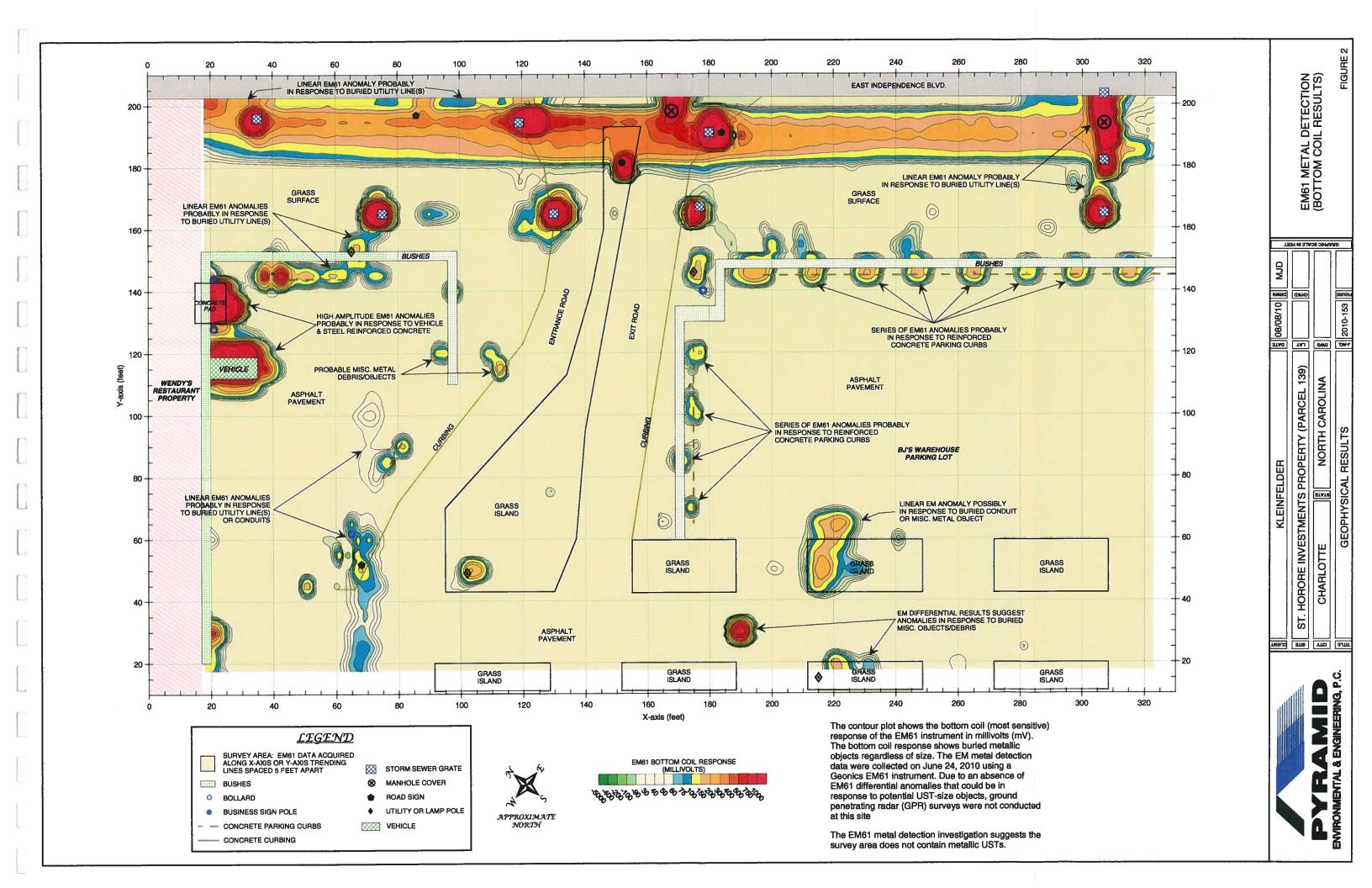
The photograph shows a portion of the geophysical survey area of the St. Horore Investments property located along the southwesterly side of Independence Boulevard in Charlotte, North Carolina. The photograph is viewed in a southwesterly direction.

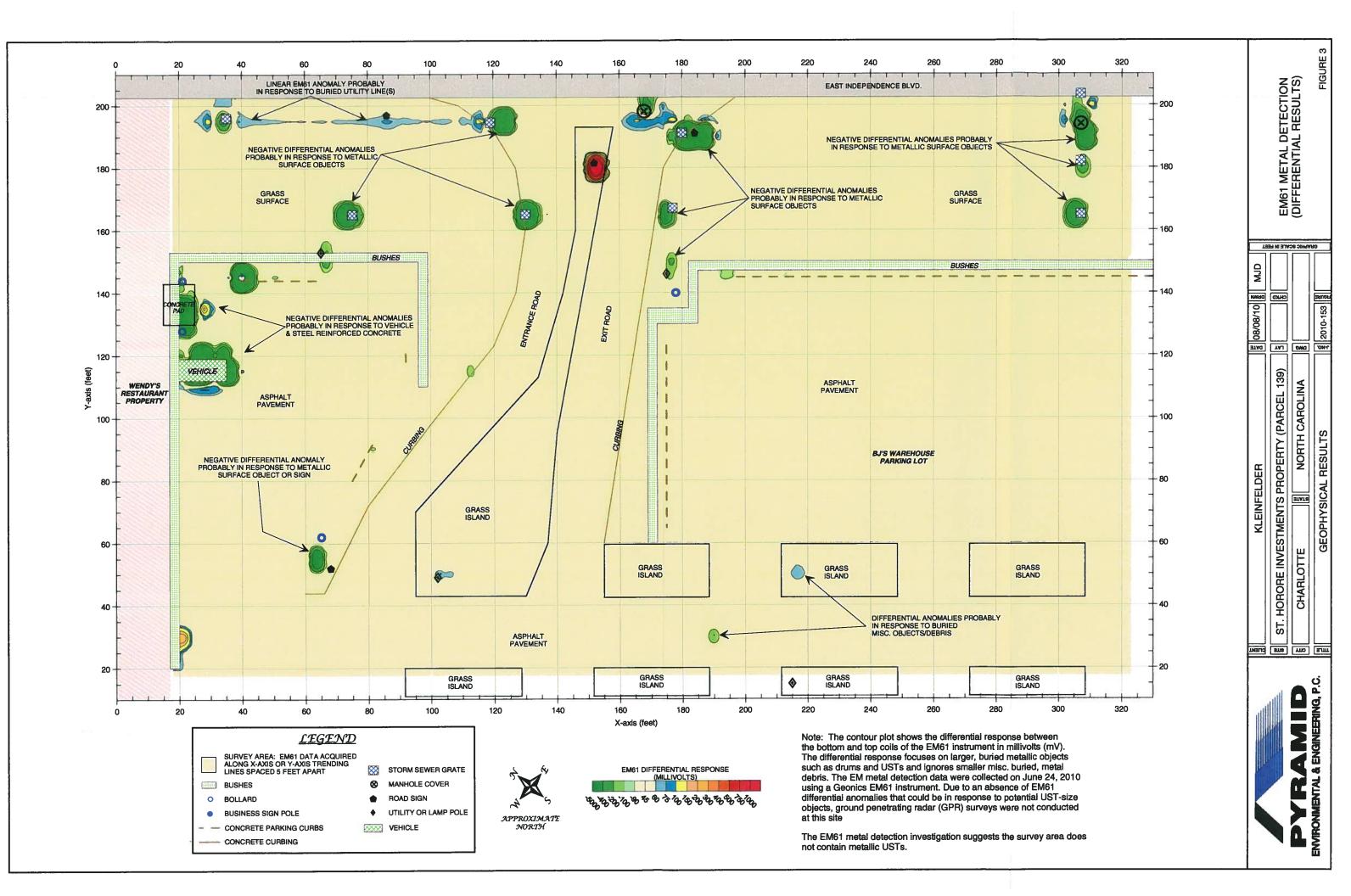


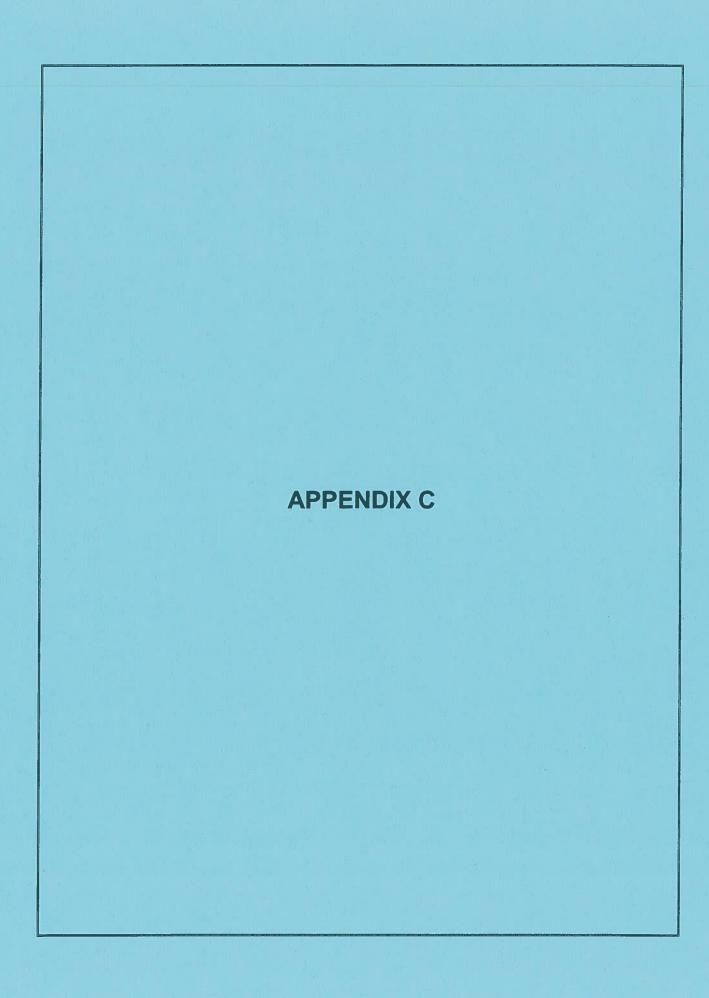
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Ë	ST. HORORE INVESTMENTS PROPERTY (PARCEL 139)	Š B
È	CHARLOTTE	(%)
THE.	GEOPHYSICAL RESULTS	2010-153

GEOPHYSICAL EQUIPMENT & SITE PHOTOGRAPHS

FIGURE 1







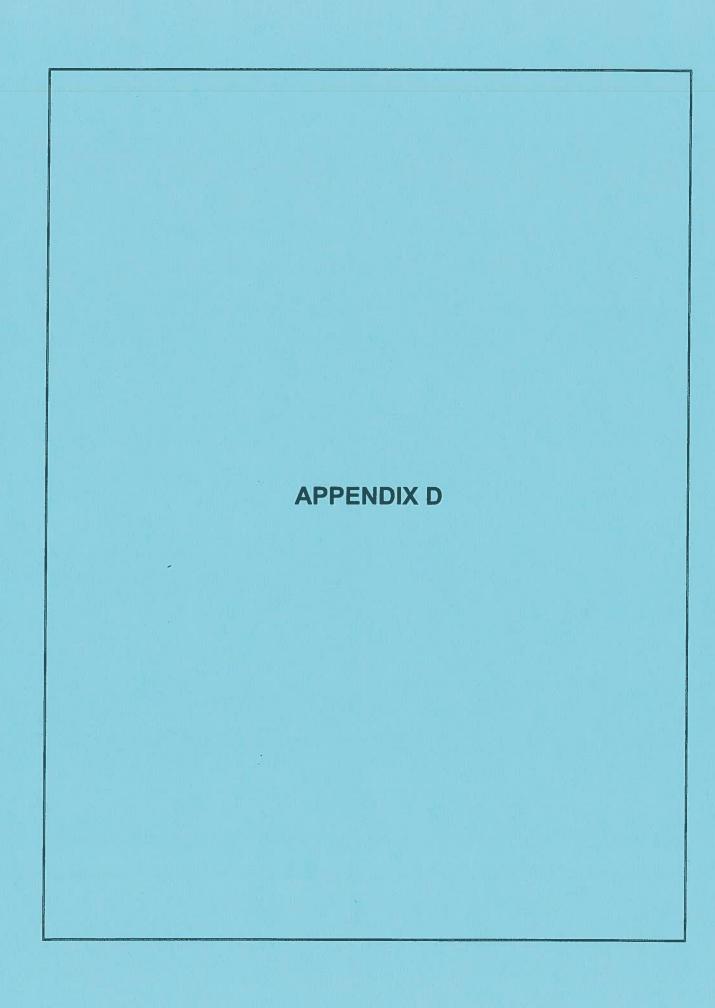
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DEPTH	SAMPLE NO.	BLOWS/FT	PID	nscs	LITHOLOGY	DESCRIPTION	DEPTH
5-			0.0	CL		Red Brown, Yellowish Brown, Lean CLAY, Hard, Dry, No Odor	- - - - 5 -
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DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID	nscs	LITHOLOGY	DESCRIPTION	DEPTH
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-	0.0	CL		Yellowish Brown, Light Brown, Lean CLAY, Hard to Loose, Dry, Petroleum Odor	-
-	0.0				_}-
-	0.0			Brown, Light Red Brown, Lean CLAY, Slightly Tacky, Loose, Dry, Petroleum Odor	-
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Kleinfel 313 Ga	llimore	Dair	y Ro	Remarks Sample B-3 collected from 7.5-10 ft. submitted for laboratory ana	iysis.
Greens Telepho	boro, N one: 33	IC 27 36-66	'409 88-00	93	
Fax: 33	36-668-	-3868	3	See key sheet for symbols and abbreviations used above.	

Project Number	NCDOT Name U- 111989		_	ale		Drill Contractor Probe Techology Drill Method 2 inch Direct Push 2 inch Direct Push Drilling Started 7/19/10 Ended 7/19/10 Total Depth 10.0 Logged By T. Stewart Depth To Water	IG B-4
DEPTH	SAMPLE NO.	BLOWS/FT	PID	nscs	LITHOLOGY	DESCRIPTION	ОЕРТН
5—			0.0	CL		Red Brown, Yellowish Brown, Lean CLAY, Hard, Dry, Petroleum Odor	- - - - - 5
- 10— - -	SS		54			Boring Terminated at 10 feet in RESIDUAL	10
15— - - -							— 15 —
20—							- 20
30—							- 25 - - - - 30
-							-
KLEINFE	31 Gr Te	eenst lepho	der limore poro, N ene: 33	IC 27 36-66	'409 88-00		lysis.

Project Number	NCDOT Name U- 111989		-	ale		Drill Contractor Probe Techology Drill Method 2 inch Direct Push 2 inch Direct Push Drilling Started 7/19/10 Ended 7/19/10 Logged By T. Stewart Drilling Started Depth 10.0 Depth To Water	IG B-5
DEPTH	SAMPLE NO.	BLOWS/FT	PID	SOSU	LITHOLOGY	DESCRIPTION	DEPTH
5			0.0	CL		Yellowish Brown, Gray, Lean CLAY, Tacky, Hard, Dry, No Odor	- - - - 5
10	ss		0.0			Boring Terminated at 10 feet in RESIDUAL	10
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NC Certification No. 402 SC Certification No. 99012 NC Drinking Water Cert No. 37735

Case Narrative

08/04/2010

Kleinfelder SE, Inc. (NCDOT Project) John Stewart 313 Gallimore Dairy Rd. Greensboro, NC 27409 Project: NCDOT Parcel #139
Project No.: WBS# 34749.1.1
Lab Submittal Date: 07/19/2010
Prism Work Order: 0070514

This data package contains the analytical results for the project identified above and includes a Case Narrative, Sample Results and Chain of Custody. Unless otherwise noted, all samples were received in acceptable condition and processed according to the referenced methods.

Data qualifiers are flagged individually on each sample. A key reference for the data qualifiers appears at the end of this case narrative.

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

Respectfully,

PRISM LABORATORIES, INC.

VP Laboratory Services

Reviewed By

Rossi a. Jones

Data Qualifiers Key Reference:

A Surrogate recovery outside control limits. Matrix interference suspected.

BRL Below Reporting Limit
MDL Method Detection Limit

RPD Relative Percent Difference

* Results reported to the reporting limit. All other results are reported to the MDL with values between MDL and reporting limit indicated with a J.



Sample Receipt Summary

08/04/2010

Prism Work Order: 0070514

Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received
B-1(7.5-10)	0070514-01	Soil	7/19/10	7/19/10
B-2(7.5-10)	0070514-02	Soil	7/19/10	7/19/10
B-3(7.5-10)	0070514-03	Soil	7/19/10	7/19/10
B-4(7.5-10)	0070514-04	Soil	7/19/10	7/19/10
B-5(7.5-10)	0070514-05	Soil	7/19/10	7/19/10

Samples received in good condition at 3.2 degrees C unless otherwise noted.



08/04/2010



Kleinfelder SE, Inc. (NCDOT Project)

Attn: John Stewart 313 Gallimore Dairy Rd. Greensboro, NC 27409 Project: NCDOT Parcel #139

Project No.: WBS# 34749.1.1

Sample Matrix: Soil

Client Sample ID: B-1(7.5-10)
Prism Sample ID: 0070514-01
Prism Work Order: 0070514
Time Collected: 07/19/10 11:15
Time Submitted: 07/19/10 14:57

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									•
Diesel Range Organics	BRL	mg/kg dry	8.9	1.4	1	*8015C	7/28/10 5:06	GRR	P0G0529
			Surrogate			Recov	ery	Control	Limits
			o-Terphenyl			74	%	49-124	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	6.4	0.83	50	*8015C	7/26/10 21:24	HPE	P0G0528
			Surrogate			Recov	ery	Control	Limits
			a,a,a-Trifluor	otoluene		10	1 %	55-129	
General Chemistry Parameters									
% Solids	78.6	% by Weight	0.100	0.100	1	*SM2540 G	7/26/10 12:18	JAB	P0G0505







Attn: John Stewart 313 Gallimore Dairy Rd. Greensboro, NC 27409 Project: NCDOT Parcel #139

Project No.: WBS# 34749.1.1

Sample Matrix: Soil

Client Sample ID: B-2(7.5-10)
Prism Sample ID: 0070514-02

Prism Work Order: 0070514 Time Collected: 07/19/10 11:32 Time Submitted: 07/19/10 14:57

Parameter	Result	Units	Report MDL Limit		Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	BRL	mg/kg dry	10	1.6	1	*8015C	7/28/10 5:41	GRR	P0G0529
			Surrogate			Recov	very	Control Limits	
			o-Terphenyl			79	%	49-124	
Gasoline Range Organics by GC/FI)								
Gasoline Range Organics	BRL	mg/kg dry	7.2	0.93	50	*8015C	7/26/10 21:55	HPE	P0G0528
			Surrogate			Recov	ery	Control I	Limits
			a,a,a-Trifluor	otoluene		10	1 %	55-129	
General Chemistry Parameters									
% Solids	69.6	% by Weight	0.100	0.100	1	*SM2540 G	7/26/10 12:18	JAB	P0G0505







Attn: John Stewart 313 Gallimore Dairy Rd. Greensboro, NC 27409 Project: NCDOT Parcel #139

Project No.: WBS# 34749.1.1

Sample Matrix: Soil

Client Sample ID: B-3(7.5-10)

Prism Sample ID: 0070514-03

Prism Work Order: 0070514 Time Collected: 07/19/10 11:53

Time Submitted: 07/19/10 14:57

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesei Range Organics	14	mg/kg dry	9.7	1.6	1	*8015C	7/28/10 6:17	GRR	P0G0529
			Surrogate			Reco	Control Limits		
			o-Terphenyl			72	49-124		
Gasoline Range Organics by GC/FII	D								
Gasoline Range Organics	210	mg/kg dry	26	3.4	200	*8015C	7/27/10 2:33	HPE	P0G0528
			Surrogate			Recov	/егу	Control I	Limits
			a,a,a-Trifluoi	rotoluene		13	2 %	55-129	Α
General Chemistry Parameters									
% Solids	72.2	% by Weight	0.100	0.100	1	*SM2540 G	7/26/10 12:18	JAB	P0G0505







Attn: John Stewart 313 Gallimore Dairy Rd. Greensboro, NC 27409 Project: NCDOT Parcel #139

Project No.: WBS# 34749.1.1

Sample Matrix: Soil

Client Sample ID: B-4(7.5-10) Prism Sample ID: 0070514-04 Prism Work Order: 0070514

Time Collected: 07/19/10 12:08 Time Submitted: 07/19/10 14:57

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FI	D			_					
Diesel Range Organics	10	mg/kg dry	9.1	1.5	1 _	*8015C	7/28/10 19:06	GRR	P0G0567
			Surrogate			Recov	ery	Control	Limits
			o-Terphenyl	-		86	49-124		
Gasoline Range Organics by GC	/FID								
Gasoline Range Organics	BRL	mg/kg dry	5.5	0.72	50	*8015C	7/26/10 22:26	HPE	P0G0528
			Surrogate			Recov	ery	Control i	Limits
			a,a,a-Trifluor	otoluene		11:	2 %	55-129	
General Chemistry Parameters									
% Solids	77.1	% by Weight	0.100	0.100	1	*SM2540 G	7/26/10 12:18	JAB	P0G0505







Attn: John Stewart 313 Gallimore Dairy Rd. Greensboro, NC 27409 Project: NCDOT Parcel #139

Project No.: WBS# 34749.1.1

Sample Matrix: Soil

Client Sample ID: B-5(7.5-10)

Prism Sample ID: 0070514-05 Prism Work Order: 0070514

Time Collected: 07/19/10 12:28 Time Submitted: 07/19/10 14:57

Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
BRL	mg/kg dry	8.3	1.3	1	*8015C	7/28/10 19:41	GRR	P0G0567
		Surrogate			Recov	Control Limits		
		o-Terphenyi			55	49-124		
ID .								
BRL	mg/kg dry	4.5	0.58	50	*8015C	7/26/10 22:57	HPE	P0G0528
		Surrogate			Recov	/ery	Control i	_imits
		a,a,a-Trifluo	rotoluene		93	3 %	55-129	•
84.0	% by Weight	0.100	0.100	1	*SM2540 G	7/26/10 12:18	JAB	P0G0508
	BRL ID BRL	ID BRL mg/kg dry BRL mg/kg dry	BRL mg/kg dry 8.3 Surrogate o-Terphenyl ID BRL mg/kg dry 4.5 Surrogate a,a,a-Trifluo 84.0 % by 0.100	BRL mg/kg dry 8.3 1.3	BRL mg/kg dry 8.3 1.3 1	BRL mg/kg dry 8.3 1.3 1 *8015C Surrogate Record O-Terphenyl 55 ID BRL mg/kg dry 4.5 0.58 50 *8015C Surrogate Record a,a,a-Trifluorotoluene 93 84.0 % by 0.100 0.100 1 *SM2540 G	BRL mg/kg dry 8.3 1.3 1 *8015C 7/28/10 19:41	BRL mg/kg dry 8.3 1.3 1 *8015C 7/28/10 19:41 GRR



Attn: John Stewart 313 Gallimore Dairy Rd. Greensboro, NC 27409 Project: NCDOT Parcel #139

Prism Work Order: 0070514

Time Submitted: 7/19/10 2:57:00PM

Project No: WBS# 34749.1.1

Gasoline Range Organics by GC/FID - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P0G0528 - 5035										
Blank (P0G0528-BLK1)				Prepared	& Analyze	d: 07/26/1	0			
Gasoline Range Organics	BRL	5.0	mg/kg wet							
Surrogate: a,a,a-Trifluorotoluene	4.30		mg/kg wet	5.00		86	55-129			
LCS (P0G0528-BS1)				Prepared	& Analyze	d: 07/26/1	0			
Gasoline Range Organics	40.0	5.0	mg/kg wet	50.0		80	67-116			
Surrogate: a,a,a-Trifluorotoluene	5.05		mg/kg wet	5.00		101	55-129			
LCS Dup (P0G0528-BSD1)				Prepared	& Analyze	d: 07/26/1	0			
Gasoline Range Organics	41.1	5.0	mg/kg wet	50.0		82	67-116	3	200	
Surrogate: a,a,a-Trifluorotoluene	5.10		mg/kg wet	5.00		102	55-129			
Matrix Spike (P0G0528-MS1)	Sourc	e: 007051	4-01	Prepared	& Analyze	d: 07/26/1	0			
Gasoline Range Organics	60.8	6.4	mg/kg dry	63.6	BRL	95	57-113			
Surrogate: a,a,a-Trifluorotoluene	6.81		mg/kg dry	6.36		107	55-129			
Matrix Spike Dup (P0G0528-MSD1)	Source	e: 007051	4-01	Prepared	& Analyze	d: 07/26/1	0			
Gasoline Range Organics	61.1	6.4	mg/kg dry	63.6	BRL	96	57-113	0.5	23	
Surrogate: a, a, a-Trifluorotoluene	6.87		mg/kg dry	6.36		108	55-129			



Kleinfelder SE, Inc. (NCDOT Project) Attn: John Stewart

313 Gallimore Dairy Rd. Greensboro, NC 27409

Project: NCDOT Parcel #139

Prism Work Order: 0070514

Time Submitted: 7/19/10 2:57:00PM

Project No: WBS# 34749.1.1

Diesel Range Organics by GC/FID - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P0G0529 - 3545A										· · · · · · · · · · · · · · · · · · ·
Blank (P0G0529-BLK1)				Prepared:	07/26/10	Analyzed	: 07/27/10			
Diesel Range Organics	BRL	7.0	mg/kg wet							
Surrogate: o-Terphenyl	1.37		mg/kg wet	1.60		86	49-124			
LCS (P0G0529-BS1)				Prepared:	07/26/10	Analyzed	: 07/27/10			
Diesel Range Organics	60.0	7.0	mg/kg wet	80.0		75	55-109			
Surrogate: o-Terphenyl	1.69		mg/kg wet	1.60		106	49-124			
LCS Dup (P0G0529-BSD1)				Prepared:	07/26/10	Analyzed	: 07/27/10			
Diesel Range Organics	60.5	7.0	mg/kg wet	79.9		76	55-109	0.9	200	
Surrogate: o-Terphenyl	1.68		mg/kg wet	1.60		105	49-124			
Batch P0G0567 - 3545A										
Blank (P0G0567-BLK1)				Prepared:	07/27/10	Analyzed	: 07/28/10			
Diesel Range Organics	BRL	7.0	mg/kg wet						-	
Surrogate: o-Terphenyl	1.25		mg/kg wet	1.60		78	49-124			
LCS (P0G0567-BS1)				Prepared:	07/27/10	Analyzed	07/28/10			
Diesel Range Organics	59.0	7.0	mg/kg wet	79.7		74	55-109			
Surrogate: o-Terphenyl	1.77		mg/kg wet	1.59		111	49-124			
LCS Dup (P0G0567-BSD1)				Prepared:	07/27/10	Analyzed	07/28/10			
Diesel Range Organics	65.1	7.0	mg/kg wet	79.7		82	55-109	10	200	
Surrogate: o-Terphenyl	1.88		mg/kg wet	1.59		118	49-124			



Attn: John Stewart 313 Gallimore Dairy Rd. Greensboro, NC 27409 Project: NCDOT Parcel #139

Prism Work Order: 0070514

Time Submitted: 7/19/10 2:57:00PM

Project No: WBS# 34749.1.1

General Chemistry Parameters - Quality Control

Analyte	Result	Reporting Limit	Units	Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0G0505 - NO PREP										
Duplicate (P0G0505-DUP1)	Sour	rce: 0070514	I-02 i	Prepared: 0	0 7 /23/10	Analyzed:	07/26/10			
% Solids	71.3	0.100	% by Weight		69.6			2	20	

Sample Extraction Data

Prep Method: 3545A

Lab Number	Batch	Initial	Final	Date	
0070514-01	P0G0529	24.99 g	1 mL	07/26/10	
0070514-02	P0G0529	25.02 g	1 mL	07/26/10	
0070514-03	P0G0529	25.05 g	1 mL	07/26/10	
0070514-04	P0G0567	25 g	1 mL	07/27/10	
0070514-05	P0G0567	25.01 g	1 mL	07/27/10	
Prep Method: 5035					

Lab Number	Batch	Initial	Final	Date
0070514-01	P0G0528	4.97 g	5 mL	07/26/10
0070514-02	P0G0528	5.01 g	5 mL	07/26/10
0070514-03	P0G0528	5.27 g	5 mL	07/26/10
0070514-04	P0G0528	5.87 g	5 mL	07/26/10
0070514-05	P0G0528	6.68 g	5 mL	07/26/10

NO PREP

Lab Number	Batch	Initial	Final	Date
0070514-01	P0G0505	30 g	30 mL	07/23/10
0070514-02	P0G0505	30 g	30 mL	07/23/10
0070514-03	P0G0505	30 g	30 mL	07/23/10
0070514-04	P0G0505	30 g	30 mL	07/23/10
0070514-05	P0G0505	30 g	30 mL	07/23/10

ul-Service Analytical & vironmental Solutions
S FU EF E

449 Springbrook Road • P.O. Box 240543 • Charlotta, NC 28224-0543 Phone: 704/529-6364 • Fax: 704/545-0409) (Arene Report To/Contact Name: . Reporting Address: 313 Client Company Name: _

Site Location Physical Address: Charlette No Phone: 336-666-0093 Fax (Yes) (No): Email (Yes) (No) Email Address Jir) Steuby & nceasboo Site Location Name: EDD Type: PDF Phone: 33%

CHAIN OF CUSTODY RECORD

LAB USE ONLY

*Please ATTACH any project specific reporting (QC LEVEL I II III N) provisions and/or QC Requirements Invoice To: QUOTE # TO ENSURE PROPER MILLING: Jacel Project Name: NCDOI-100

Same

Address: __

G 6-9 Days Standard 10 days C Pre-Approved Turnaround time is based on business days, excluding weekends and holidays. (SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES Requested Due Date @ 1 Day @ 2 Days @ 3 Days @ 4 Days @ 5 Days Samples received after 15:00 will be processed next business day Purchase Order No./Billing Reference "Worlding Days"

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL PROPER CONTAINERS used?

WOLATILES recid/W/OUT HEADSPACE

PROPER PRESERVATIVES Indicated Received ON WET JOE? Temp. 3.2

Received WITHIN HOLDING TIMES?

CUSTODY SEALS, INTACT?

7

댇 Sample Iced Upon Collection: YES XNO USACE SC___OTHER__ Water Chlorinated: YES NO Certification: NELAC_

PRISM	ID NO.	0	70	63	70	95	11.				Y . 3 COPIES	PRISM USE ONLY	
	REMARKS			- durante de la companion de l							PRESS DOWN FIRMLY - 3 COPIES	PRISA	Additional Comments:
ANALYSES REQUESTED	() () () () () () () () () ()	メメ	X	×	×	イイ					Affiliation Kleinfelder	ove. Any changes must be islized.	yMours
PRESERVA.	TIVES	Methanal				>				•	Sewart	s as requested abo	
SAMPLE CONTAINER	SEE BELOW NO. SIZE	ħ				>					Sampled By (Print Name)	Upon relinquishing this Chain of Custody is your authorization for Prism to proceed with the analyses as requested above. Any changes must be culmitted in writings take Prism Project Mandoer. There will be charges for any changes after analyses have been initialized.	hived By: (Signature)
MATRIX	WATER OR SLUDGE)	05	مح د	50	አ	80		20			Sampled By	thorization for here will be of	Rece
TIME	MILITARY	5111	1132	1153	(208	128				0	Heat	dy is your au	
DATE	COLLECTED	7-19-10				>			(3)		/_\\\\	Chain of Custo	11/
CLIENT	SAMPLE DESCRIPTION	B-1(715-10)	R-2(75-10)	B-3(7.570)	B-4(75-10)	B-5(75-10)					Sampler's Signature	Upon relinguishing, this	Relinquished By: (Signature)

SEE REVERSE FOR TERMS & CONDITIONS

LANDFILL OTHER:

CERCLA

RCRA:

SOLID WASTE:

DRINKING WATER:

Other

☐ Prism Fletd Service GROUNDWATER:

A Hand-delivered

Dredex Dups

NPDES:

4150700

Site Departure Time Field Tech Fee:

WBS#

34749.1.1

7-19-10 74:5

Page 11 of 11

Method of Shipment. NOTE: ALL SMAPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODNESSAIS FOR TRANSFORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERHIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.

Received By: (Signature

Refinquished By: (Signature)

Relinquished By: (Signature)