PRELIMINARY SITE ASSESSMENT

PARCEL #132, SHELL SAM'S MART PROPERTY
CHARLOTTE – US 74 (INDEPENDENCE BOULEVARD) FROM NC 24 - 27
(ALBEMARLE ROAD) TO IDELWILD 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 | GSO10R161

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 #132, Shell Sam's Mart 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 seven of nine 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

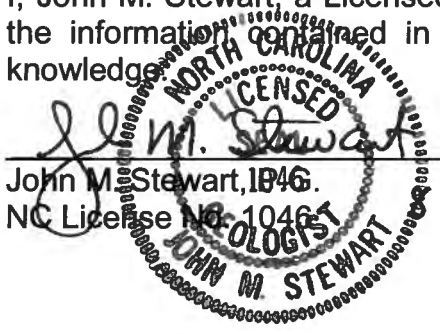
AB/JMS:cas
Enclosure

PRELIMINARY SITE ASSESSMENT

Site Name and Location:	Parcel #132, Shell Sam's Mart Property 5721 E. Independence Boulvard Charlotte, Mecklenburg County, North Carolina
Latitude and Longitude:	35° 10' 54" N, 80° 45' 14" W
Facility ID Number:	0-013878
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. Stewart, P.G.
NC License No. 1046

8/20/10

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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 Shell Sam's Mart property (Parcel 132) located at 5721 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 western side of the Sam's Mart property (Figure 2). Underground storage tanks and dispensers are located within the proposed right-of-way; therefore, 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 west and south of property owned by CEW. At the time of our site reconnaissance, this parcel was occupied by an active gas station and convenience store (Shell Sam's Mart, Facility ID No. 0-013878). A car wash was located on the northeast side of the property. A majority of the parking lot is covered by asphalt; however, the area over the USTs and adjacent to the dispensers is covered with concrete. Three underground storage tanks (USTs) are registered for the facility and are located in the southwest corner (front) of the property. Two dispenser islands were located along the west side of the property. Site photographs are shown in Appendix A.

1.2 Site Location

The facility is located on the northwest corner of Buick Drive and East Independence Boulevard. The property is bound to the north by an automobile dealership and to the east by a self-storage facility. The property is bound to the south by Buick Drive and further south by an automobile dealership. The property was bound to the west by Independence Boulevard and further west by a shopping center.

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. Documented information associated with Incident Number 8129 is summarized below.

- On June 6, 1990, Edgerton Environmental Services, Inc. prepared a Subsurface Investigation Report. At the time, two monitoring wells were onsite. Three new wells were installed and sampled, and six soil samples were collected under the product line and UST area. Laboratory analysis indicated that all the soil and water samples were contaminated with petroleum constituents.
- On November 5, 1990, Petroleum Environmental Consultants Inc. prepared a UST System Release Report. On October 26, 1990, petroleum product was observed seeping up through the cracks of the concrete near a gasoline dispenser. Power was turned off and the dispenser was removed and absorbent pads were place around the dispenser. Approximately 100 gallons of regular unleaded product was lost and 10 cubic yards of impacted soil was removed. The excavation extended five feet below ground surface. No laboratory analytical results were reported.
- On December 10, 1990, Petroleum Environmental Consultants Inc. prepared a UST Leak Report. Groundwater samples from onsite monitoring wells reported contaminated groundwater.
- In November 1993, Edgerton prepared a Results of Groundwater Laboratory Analytical Results Report. Six out of nine wells were contaminated with petroleum constituents.
- On June 6, 1995, a Corrective Action Plan was submitted.
- On July 17, 1996, NCDENR ranked the site as 065E (low priority).
- September 28, 1998, NCDENR prepared a No Further Action letter for the site.
- March 29, 2000, S&ME Inc. prepared a Monitoring Well Abandonment Report. Eight monitoring wells were abandoned.

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 west side of the property on June 25 and July 1, 2010. Pyramid utilized ground penetration radar (GPR) and 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 proposed drainage features, around the USTs, dispensers, and along the product lines. Kleinfelder met Probe Technology at the Shell Sam's Mart property on July 19, 2010; Probe Technology advanced nine soil borings (B-1 to B-9) by direct push technology (DPT). The approximate location of the borings is shown on Figure 3.

Soil borings were advanced to a depth of five to twelve feet below the ground surface (bgs) depending on their location. Borings B-1 through B-5 were located around the USTs. Boring B-6 was located along the proposed drainage feature. Boring B-7 was drilled along the product line and borings B-8 and B-9 were installed adjacent to the dispensers. 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 disregarding the active and known USTs, the EM/GPR investigation did not detect unknown metallic USTs within the survey area. Pyramid's report is included in Appendix B.

3.2 Soil Sample

Gasoline range organics (GRO) and diesel range organics (DRO) were both detected at concentrations above the State action level of 10 milligrams per kilogram in soil sample B-1 (5-7.5ft), B-2 (7.5-10ft), B-3 (7.5-10ft), B-4 (7.5-10ft), and B-9 (2.5-5ft). Soil sample B-7 (2.5-5ft) and B-8 (2.5-5ft) had only GRO concentrations above the State's action level. 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 132 within the proposed right-of-way west of the dispensers and adjacent to the tank field in the southwest corner of the property.

The contaminated soil in the two areas covers an area approximately 3,000 square feet (Figure 4). The contaminated soil adjacent to the dispensers likely extends below a depth of five feet and contaminated soil adjacent to the USTs extends vertically approximately twelve feet below ground surface. Based upon these dimensions, Kleinfelder estimates that the volume of contaminated soil in these two areas is approximately 300 cubic yards (dispenser area) and 980 cubic yards (UST area), following removal of the three UST volumes (8,000 gallon = 39 cubic yards).

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.
- GRO was detected above the State action level in borings B-1, B-2, B-3, B-4, B-7, B-8, and B-9. DRO was detected above the State action level in B-1, B-2, B-3, B-4 and B-9.
- No petroleum hydrocarbons were detected in the sample collected near the proposed drainage feature (B-6) in the southwest corner of the property.
- Based on the laboratory results, petroleum impacted soil is present to a depth of 10 feet bgs in the areas of B-1 to B-4, and 5-feet bgs in the areas of B-7 to B-9, which are located in the southern corner and west side of the project area, respectively.
- Approximately 1,280 cubic yards of petroleum contaminated soil was identified in and around the existing USTs located in the southwest corner of the property and adjacent to the western most dispenser island. A majority of the contaminated soil (950 cubic yards) is located within the proposed right-of-way. Petroleum contaminated soil could be encountered between 2.5 and 5.0 feet below the existing grade in the area of borings B-2 and B-4 and at 2.5 feet in the areas of borings B-7, B-8, and B-9.

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.

The information included on graphic representations in the report has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. These documents are not intended for use as a land survey product, nor are they designed or intended as a construction design document. The use or misuse of the information contained on these graphic representations is at the sole risk of the party using or misusing the information.

TABLES

TABLE 1: SOIL SAMPLE PID RESULTS

SAMPLE LOCATION	DEPTH (feet bgs)	PID READINGS
B-1	0.0 - 2.5	19.3
	2.5 - 5.0	597.0
	5.0 - 7.5	**1278.0**
	7.5 - 10.0	91.9
	10.0 - 12.0	121.0
B-2	0.0 - 2.5	51.8
	2.5 - 5.0	367.0
	5.0 - 7.5	1293.0
	7.5 - 10.0	**1360.0**
	10.0 - 12.0	83.4
B-3	0.0 - 2.5	2.7
	2.5 - 5.0	43.3
	5.0 - 7.5	78.6
	7.5 - 10.0	**487.0**
	10.0 - 12.0	40.4
B-4	0.0 - 2.5	573.0
	2.5 - 5.0	1493.0
	5.0 - 7.5	1569.0
	7.5 - 10.0	**1637.0**
	10.0 - 12.0	1239.0
B-5	0.0 - 2.5	2.3
	2.5 - 5.0	**14.8**
	5.0 - 7.5	12.4
	7.5 - 10.0	12.8
	10.0 - 12.0	4.6
B-6	0.0 - 2.5	1.4
	2.5 - 5.0	9.2
	5.0 - 7.5	**12.3**
	7.5 - 10.0	7.4
B-7	0.0 - 2.5	0.7
	2.5 - 5.0	**83.6**
B-8	0.0 - 2.5	1.7
	2.5 - 5.0	**72.4**
B-9	0.0 - 2.5	15.3
	2.5 - 5.0	**1349.0**

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 (5-7.5ft)	7/19/2010	**420**	**4400**
B-2 (7.5-10ft)	7/19/2010	**61**	**2400**
B-3 (7.5-10 ft)	7/19/2010	**20**	**360**
B-4 (7.5-10 ft)	7/19/2010	**73**	**2000**
B-5 (2.5-5 ft)	7/19/2010	BRL	BRL
B-6 (5-7.5 ft)	7/19/2010	BRL	BRL
B-7 (2.5-5 ft)	7/19/2010	BRL	**35**
B-8 (2.5-5 ft)	7/19/2010	BRL	**11**
B-9 (2.5-5 ft)	7/19/2010	**32**	**210**
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

FIGURES

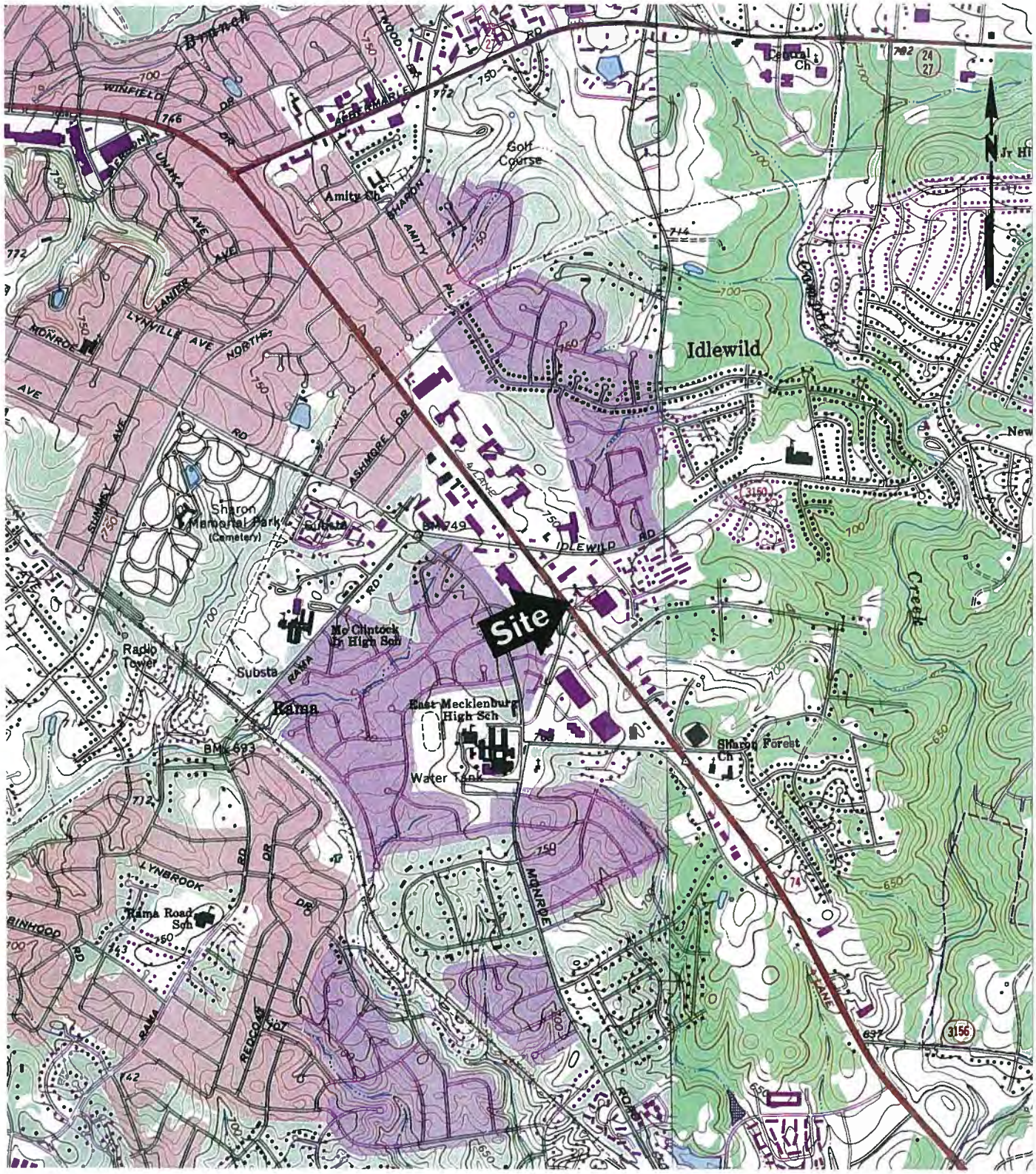

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FIGURE 1
SITE LOCATION MAP

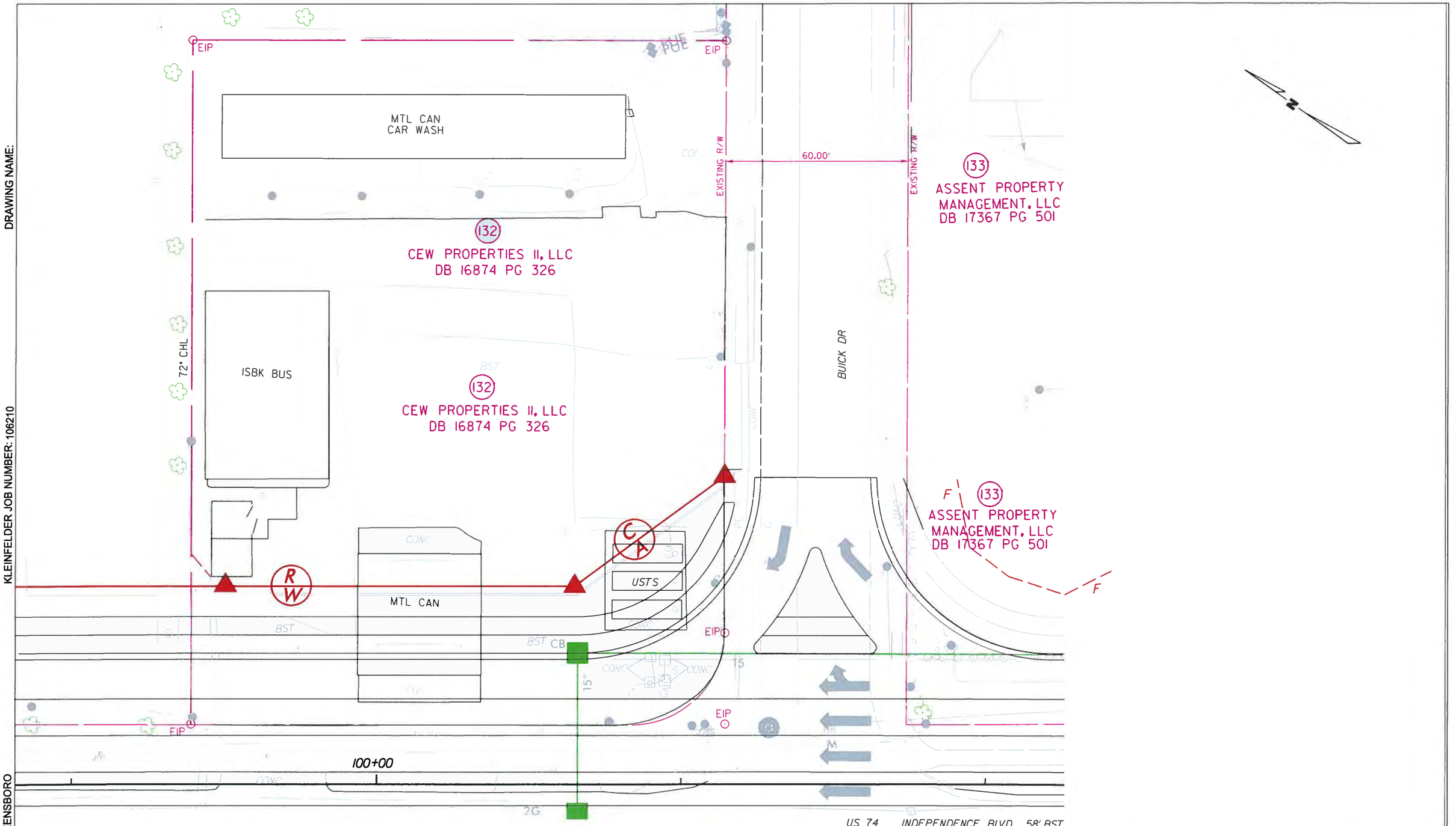
PARCEL # 132 – SHELL SAM'S MART PROPERTY
5721 EAST INDEPENDENCE BOULEVARD
MECKLENBURG COUNTY, NORTH CAROLINA

DATE: July 26, 2010	APPROVED BY:	SCALE: 1" to 2,000'
SOURCE: USGS 7.5' Topographic Map, Charlotte East Quadrangle		PROJECT NO. 111989

DRAWING NAME:

KLEINFELDER JOB NUMBER: 106210

OFFICE LOCATION: GREENSBORO



GRAPHIC SCALE

30 0 30 60

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PROJECT NO.	111989
DRAWN:	08/06/2010
DRAWN BY:	DJH
CHECKED BY:	JMS
SCALE:	1" = 30'

SITE MAP

PARCEL #132
CEW PROPERTIES II LLC (SHELL/SAM'S MART)
5721 E. INDEPENDENCE BOULEVARD

TIP NO. U-0209B | WBS ELEMENT NO. 34749.1.1

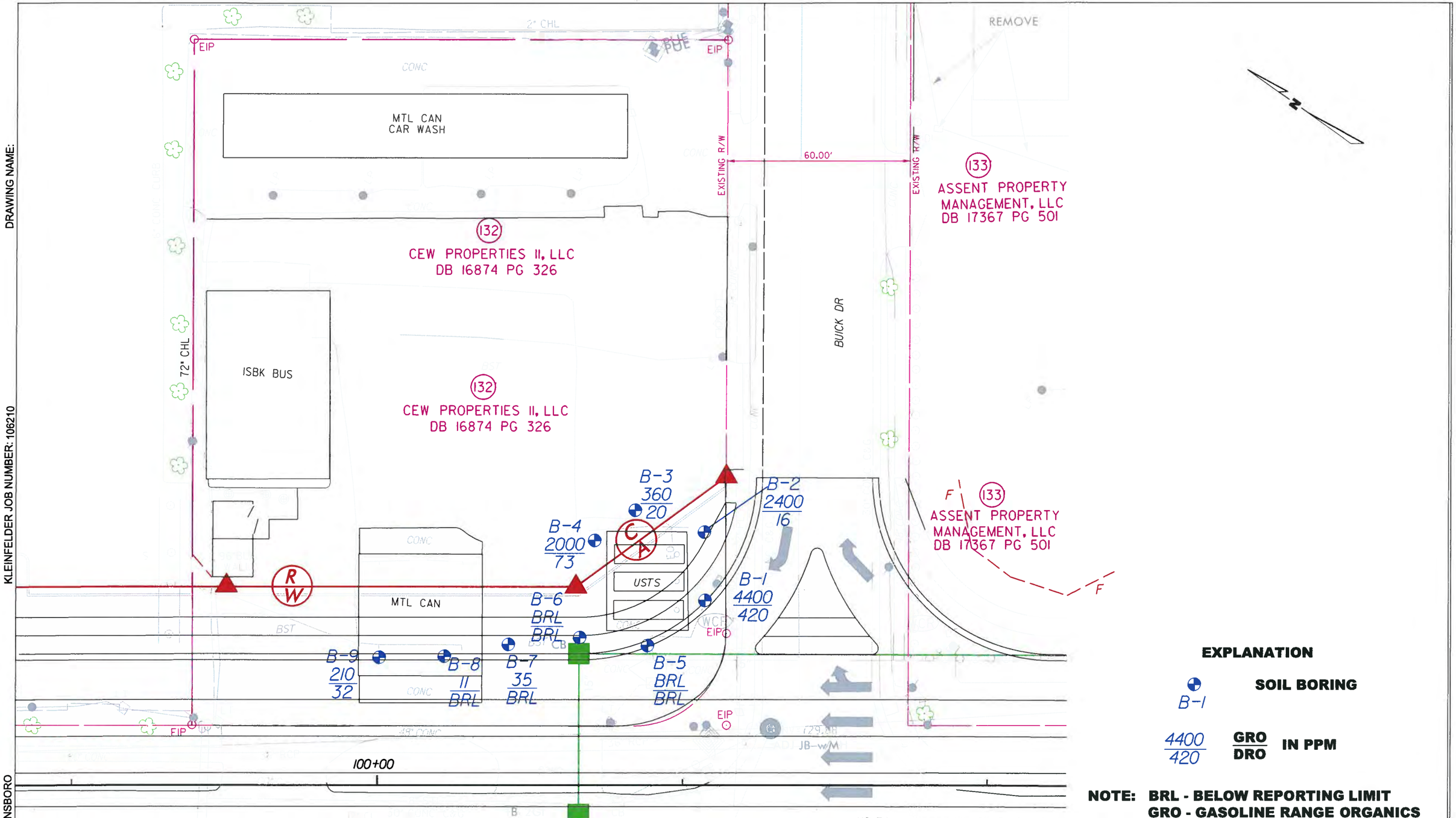
MECKLENBURG COUNTY
NORTH CAROLINA

FIGURE: **2**

DRAWING NAME:

KLEINFELDER JOB NUMBER: 106210

OFFICE LOCATION: GREENSBORO



EXPLANATION

B-1 **SOIL BORING**

4400 / 420 **GRO / DRO IN PPM**

NOTE: BRL - BELOW REPORTING LIMIT
GRO - GASOLINE RANGE ORGANICS
DRO - DIESEL RANGE ORGANICS

GRAPHIC SCALE
30 0 30 60

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DRAWN:	08/06/2010
DRAWN BY:	DJH
CHECKED BY:	JMS
SCALE:	1" = 30'

BORING LOCATION MAP

PARCEL #132
CEW PROPERTIES II LLC (SHELL/SAM'S MART)
5721 E. INDEPENDENCE BOULEVARD

TIP NO. U-0209B | WBS ELEMENT NO. 34749.1.1

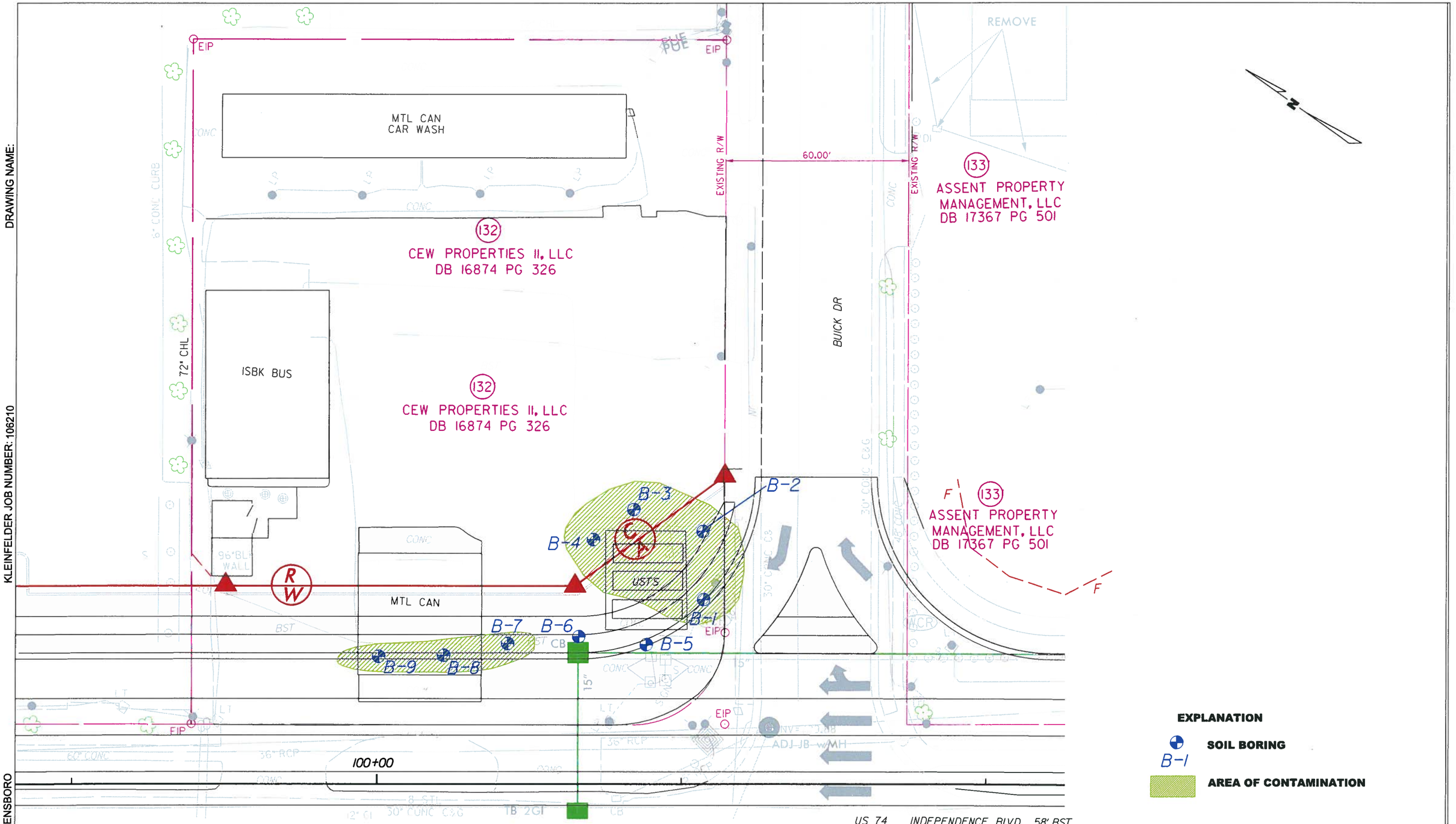
MECKLENBURG COUNTY
NORTH CAROLINA

FIGURE: **3**

DRAWING NAME:

KLEINFELDER JOB NUMBER: 106210

OFFICE LOCATION: GREENSBORO



EXPLANATION

B-1 **SOIL BORING**

AREA OF CONTAMINATION

GRAPHIC SCALE

30 0 30 60

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DRAWN:	08/06/2010
DRAWN BY:	DJH
CHECKED BY:	JMS
SCALE:	1" = 30'

HORIZONTAL EXTENT OF CONTAMINATION MAP

PARCEL #132
CEW PROPERTIES II LLC (SHELL/SAM'S MART)
5721 E. INDEPENDENCE BOULEVARD

TIP NO. U-0209B | WBS ELEMENT NO. 34749.1.1

MECKLENBURG COUNTY
NORTH CAROLINA

FIGURE: **4**

APPENDIX A

SITE PHOTOGRAPHS
KLEINFELDER PROJECT NO. 111989
PARCEL NO. 132

Photograph 1 – View of the Shell Sam's Mart property looking north.

Photograph 2 – View of the UST field of the Shell Sam's Mart property looking north. The dispensers are shown to the west (left) of the store.

SITE PHOTOGRAPHS
KLEINFELDER PROJECT NO. 111989
PARCEL NO. 132

Photograph 3 – View of the western side of the UST field and dispensers of the Shell Sam's Mart property looking north. East Independence Boulevard is shown to the west of the property.

Photograph 4 – View of the southwest corner of the Shell Sam's Mart property with a corner of the UST field in the foreground. The intersection shown is East Independence Boulevard and Buick Drive.

APPENDIX B

Pyramid Project # 2010153

GEOPHYSICAL INVESTIGATION REPORT

EM61 & GPR SURVEYS

CEW PROPERTIES, LLC SITE
PARCEL 132
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
CEW PROPERTIES, LLC SITE
PARCEL 132
Charlotte, North Carolina

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FIGURES

1.0 INTRODUCTION

Pyramid Environmental conducted a geophysical investigation for Kleinfelder across the southwestern portion of the CEW Properties, LLC site (Parcel 132) located along the northeastern corner of the Independence Boulevard and Buick Drive intersection in Charlotte, North Carolina. Conducted on June 25 and July 1, 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 proposed ROW area of the site.

Parcel 132 consists of an active Shell gas station and store. The geophysical survey area had a maximum length and width of 185 feet and 110 feet, respectively and included the pump island area and the active UST pad. Asphalt and concrete pavement covered the majority of the study area.

Kleinfelder representative Mr. John Stewart, PE provided site maps during the week of June 1, 2010 that outlined the geophysical survey area of the CEW Properties, LLC site (Parcel 132) 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. Photographs of the geophysical equipment used in this investigation and a portion of Parcel 132 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 (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 and ground penetrating radar (GPR) surveys. The EM survey was performed on June 25, 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.

GPR surveys were conducted on July 1, 2010 across selected EM61 differential anomalies and areas containing steel reinforced concrete using a GSSI SIR-2000 unit equipped with a 400 MHz antenna. Data were digitally collected in a continuous mode along X-axis and/or Y-axis survey lines, spaced 2.5 to 5.0 feet apart using a vertical scan of 512 samples, at a rate of 48 scans per second. A 70 MHz high pass filter and an 800 MHz low pass filter were used during data acquisition with the 400 MHz antenna. GPR data were collected down to a maximum depth of approximately 5 feet, based on an estimated two-way travel time of 8 nanoseconds per foot. All of the GPR data were downloaded to a field computer and reviewed in the field and office using Radprint software.

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 132 were reported to Mr. Stewart on July 14, 2010.

3.0 DISCUSSION OF RESULTS

The linear EM61 bottom coil anomalies intersecting grid coordinates X=4 Y=35, X=35 Y=65, X=90 Y=30, and X=181 Y=70 are probably in response to buried utility lines and/or conduits. GPR data suggest that the high amplitude, EM61 bottom coil anomalies (contours shaded in red) or negative EM61 differential anomalies (contours shaded in green) centered near grid coordinates X=30 Y=20, X=120 Y=20 and X=75 Y=60 are probably in response to steel reinforced concrete, pump islands, and/or miscellaneous buried conduits.

GPR data acquired across the concrete UST pad centered near grid coordinates X=155 Y=75, confirm the presence of the three active USTs buried approximately 2.0 feet below the concrete surface. The axes of the three USTs lie in a northwesterly-southeasterly orientation (parallel with Independence Boulevard) and are easily identified by the visible UST vent/fill/valve covers. The image from GPR survey line X=147 showing the response of the three USTs, is presented in **Figure 4**. The high amplitude GPR reflections that are in response to the active USTs suggest a metallic composition.

The remaining EM61 anomalies are probably in response to known surface objects or equipment. Excluding the three known and active metallic USTs centered near grid coordinates X=155 Y=75, the geophysical investigation suggests the surveyed portion of Parcel 132 does not contain unknown, metallic USTs.

4.0 SUMMARY & CONCLUSIONS

Our evaluation of the EM61 and GPR data collected across the CEW Properties, LLC site (Parcel 132) located in Charlotte, North Carolina, provides the following summary and conclusions:

- The EM61 and GPR surveys provided reliable results for the detection of metallic USTs within the surveyed portions of the site.

- The linear EM61 bottom coil anomalies intersecting grid coordinates X=4 Y=35, X=35 Y=65, X=90 Y=30, and X=181 Y=70 are probably in response to buried utility lines and/or conduits.

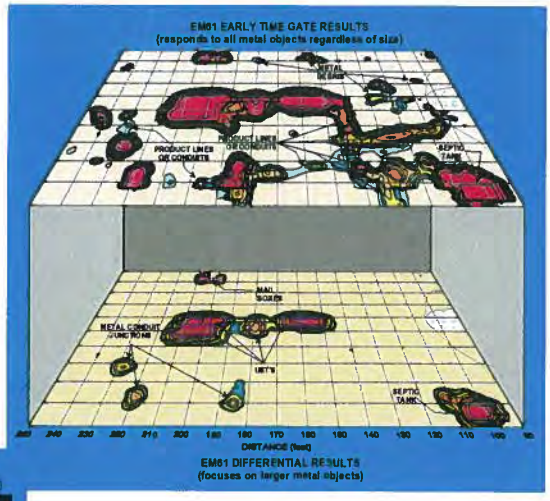
- GPR data suggest that the high amplitude, EM61 bottom coil anomalies (contours shaded in red) or negative EM61 differential anomalies (contours shaded in green) centered near grid coordinates X=30 Y=20, X=120 Y=20 and X=75 Y=60 are probably in response to steel reinforced concrete, pump islands, and/or miscellaneous buried conduits.

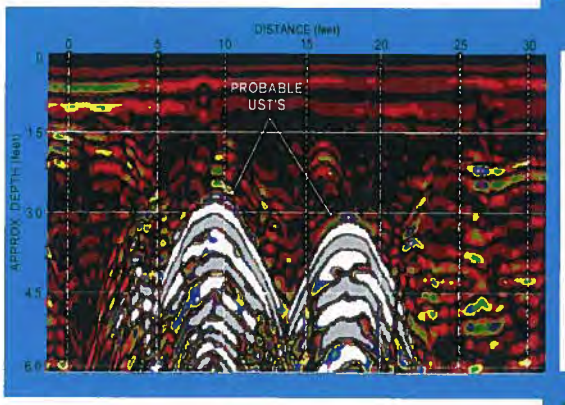
- GPR data acquired across the concrete UST pad centered near grid coordinates X=155 Y=75, confirm the presence of the three active USTs buried approximately 2.0 feet below the concrete surface. The axes of the three USTs lie in a northwesterly-southeasterly orientation.

- Excluding the known and active three metallic USTs centered near grid coordinates X=155 Y=75, the geophysical investigation suggests the surveyed portion of Parcel 132 does not contain unknown, metallic USTs.

5.0 LIMITATIONS

EM61 and GPR surveys have been performed and this report prepared for Kleinfelder in accordance with generally accepted guidelines for EM61 and GPR surveys. It is generally recognized that the results of the EM61 and GPR are non-unique and may not represent actual subsurface conditions. Excluding the active (known) USTs, the EM61 and GPR 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.

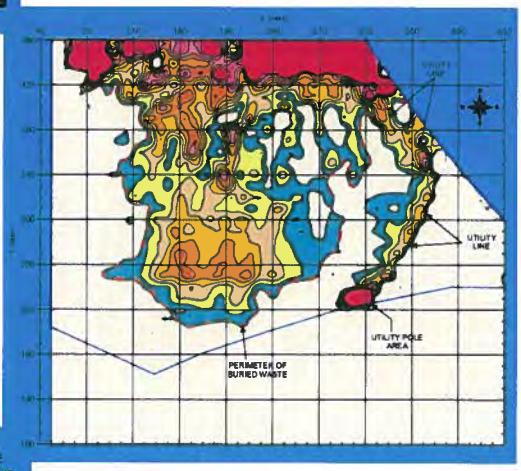


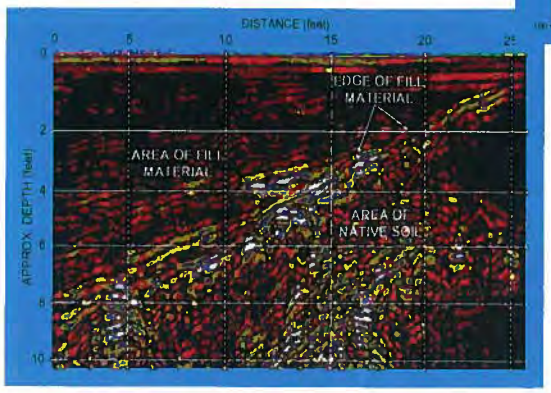


FIGURES

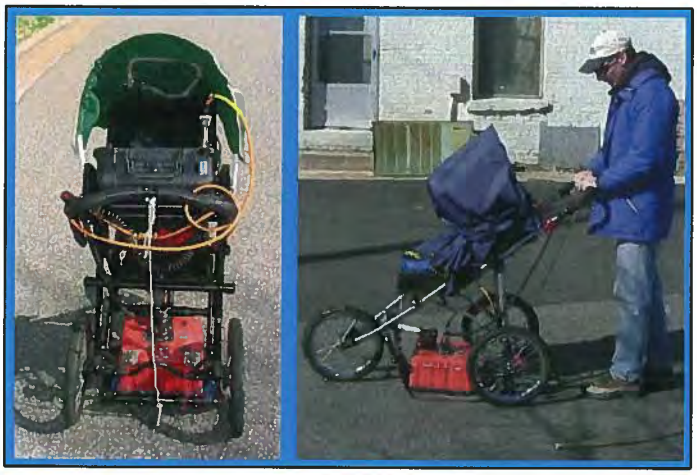
(on the following pages)

Figures shown on this page are for esthetic purposes only and are not related to the geophysical results discussed in this report.





The photograph shows the Geonics EM61 metal detector that was used to conduct the metal detection survey across the southwestern portion of Parcel 132 on June 25, 2010.



The photographs show the SIR-2000 GPR system equipped with a 400 MHz antenna that were used to conduct the ground penetrating radar investigation at Parcel 132 on July 1, 2010.

The photograph shows the southeastern portion of the CEW Properties, LLC site (Parcel 132) located at the intersection of Independence Boulevard and Buick Drive in Charlotte, North Carolina. The photograph is viewed in a northwesterly direction.

PYRAMID
ENVIRONMENTAL & ENGINEERING, P.C.

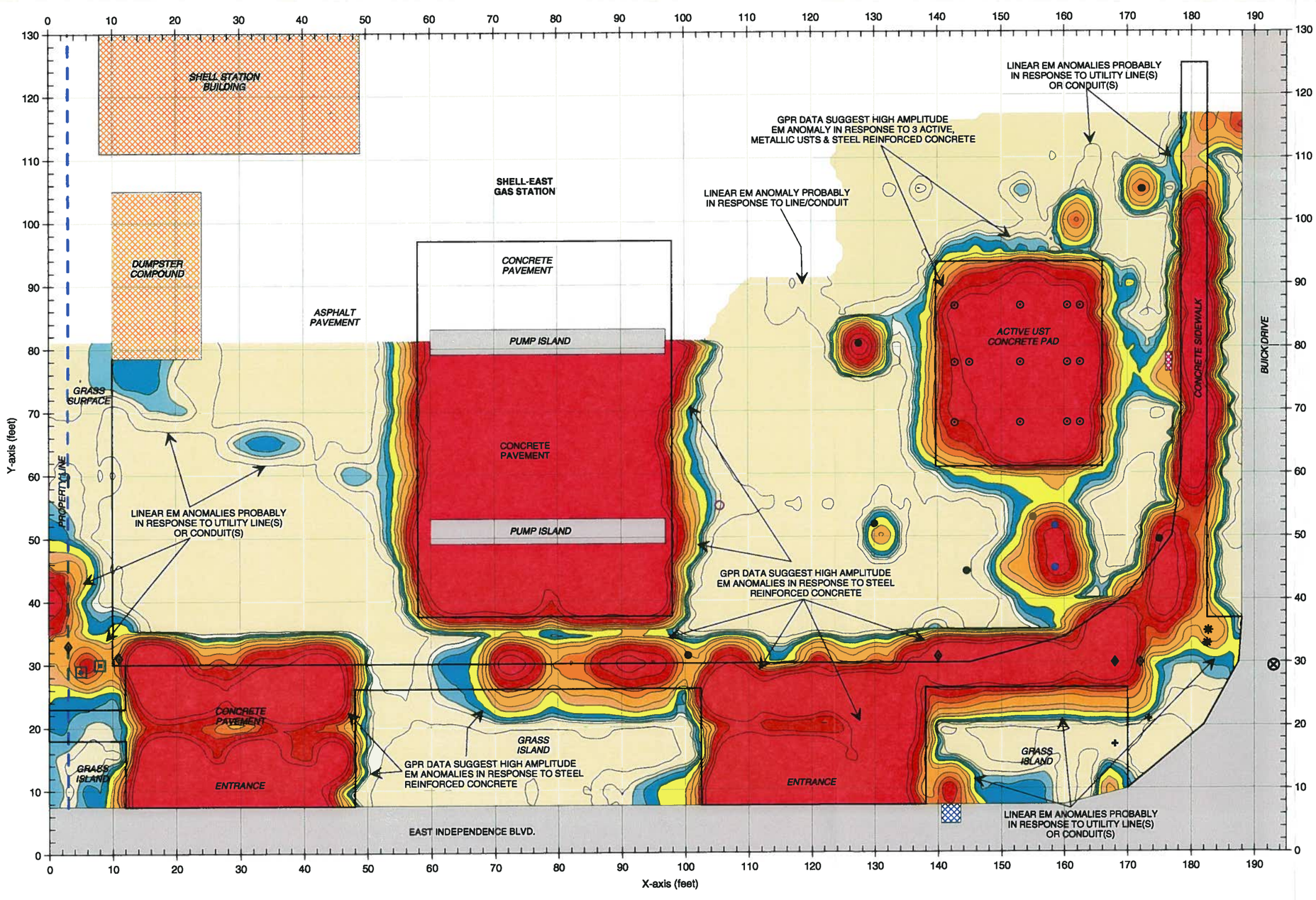
CLIENT	KLEINFELDER	DATE	08/06/10	DRAWN	MJD
SITE	CEW PROPERTIES, LLC SITE (PARCEL 132)	LAT		CHKD	
CITY	CHARLOTTE	STATE	NORTH CAROLINA	DWG	
TITLE	GEOPHYSICAL RESULTS	JOB #	2010-153	SHEET	

GEOPHYSICAL EQUIPMENT & SITE PHOTOGRAPHS

FIGURE 1

EM61 METAL DETECTION (BOTTOM COIL RESULTS)

FIGURE 2



APPROXIMATE NORTH

LEGEND

- SURVEY AREA: EM61 DATA ACQUIRED ALONG Y-AXIS TRENDING LINES SPACED 5 FEET APART
- BUILDING OR STRUCTURE
- BUSINESS SIGN POLE
- GAS LINE VALVE COVER
- GUY WIRE
- MONITORING WELL
- MANHOLE COVER
- PVC VENT PIPE
- ROAD SIGN
- STORM SEWER GRATE
- UTILITY OR LAMP POLE
- WATER METER BOX
- UST VALVE COVER
- UST VENT PIPE

EM61 BOTTOM COIL RESPONSE (MILLIVOLTS)

-500 -400 -320 -250 -200 -160 -125 -100 -80 -63 -50 -40 -32 -25 -20 -16 -12.5 -10 -8 -6.3 -5 -4 -3.2 -2.5 -2 -1.6 -1.25 -1 -0.8 -0.63 -0.5 -0.4 -0.32 -0.25 -0.2 -0.16 -0.125 -0.1 -0.08 -0.063 -0.05 -0.04 -0.032 -0.025 -0.02 -0.016 -0.0125 -0.01 -0.008 -0.0063 -0.005 -0.004 -0.0032 -0.0025 -0.002 -0.0016 -0.00125 -0.001 -0.0008 -0.00063 -0.0005 -0.0004 -0.00032 -0.00025 -0.0002 -0.00016 -0.000125 -0.0001 -0.00008 -0.000063 -0.00005 -0.00004 -0.000032 -0.000025 -0.00002 -0.000016 -0.0000125 -0.00001 -0.000008 -0.0000063 -0.000005 -0.000004 -0.0000032 -0.0000025 -0.000002 -0.0000016 -0.00000125 -0.000001 -0.0000008 -0.0000006 -0.0000005 -0.0000004 -0.0000003 -0.0000002 -0.0000001 0 0.0000001 0.0000002 0.0000003 0.0000004 0.0000005 0.0000006 0.0000008 0.000001 0.00000125 0.0000016 0.000002 0.0000025 0.0000032 0.000004 0.000005 0.0000063 0.000008 0.00001 0.0000125 0.000016 0.00002 0.000025 0.000032 0.00004 0.00005 0.000063 0.00008 0.0001 0.000125 0.00016 0.0002 0.00025 0.00032 0.0004 0.0005 0.00063 0.0008 0.001 0.00125 0.0016 0.002 0.0025 0.0032 0.004 0.005 0.0063 0.008 0.01 0.0125 0.016 0.02 0.025 0.032 0.04 0.05 0.063 0.08 0.1 0.125 0.16 0.2 0.25 0.32 0.4 0.5 0.63 0.8 1 1.25 1.6 2 2.5 3.2 4 5 6.3 8 10 12.5 16 20 25 32 40 50 63 80 100 125 160 200 250 320 400 500 630 800 1000

The contour plot shows the bottom coil (most sensitive) response of the EM61 instrument in millivolts (mV). The bottom coil response shows buried metallic objects regardless of size. The EM metal detection data were collected on June 25, 2010 using a Geonics EM61 instrument. Ground penetrating radar (GPR) data were acquired on July 1, 2010 using a Geophysical Survey Systems SIR 2000 instrument with a 400 MHz antenna.

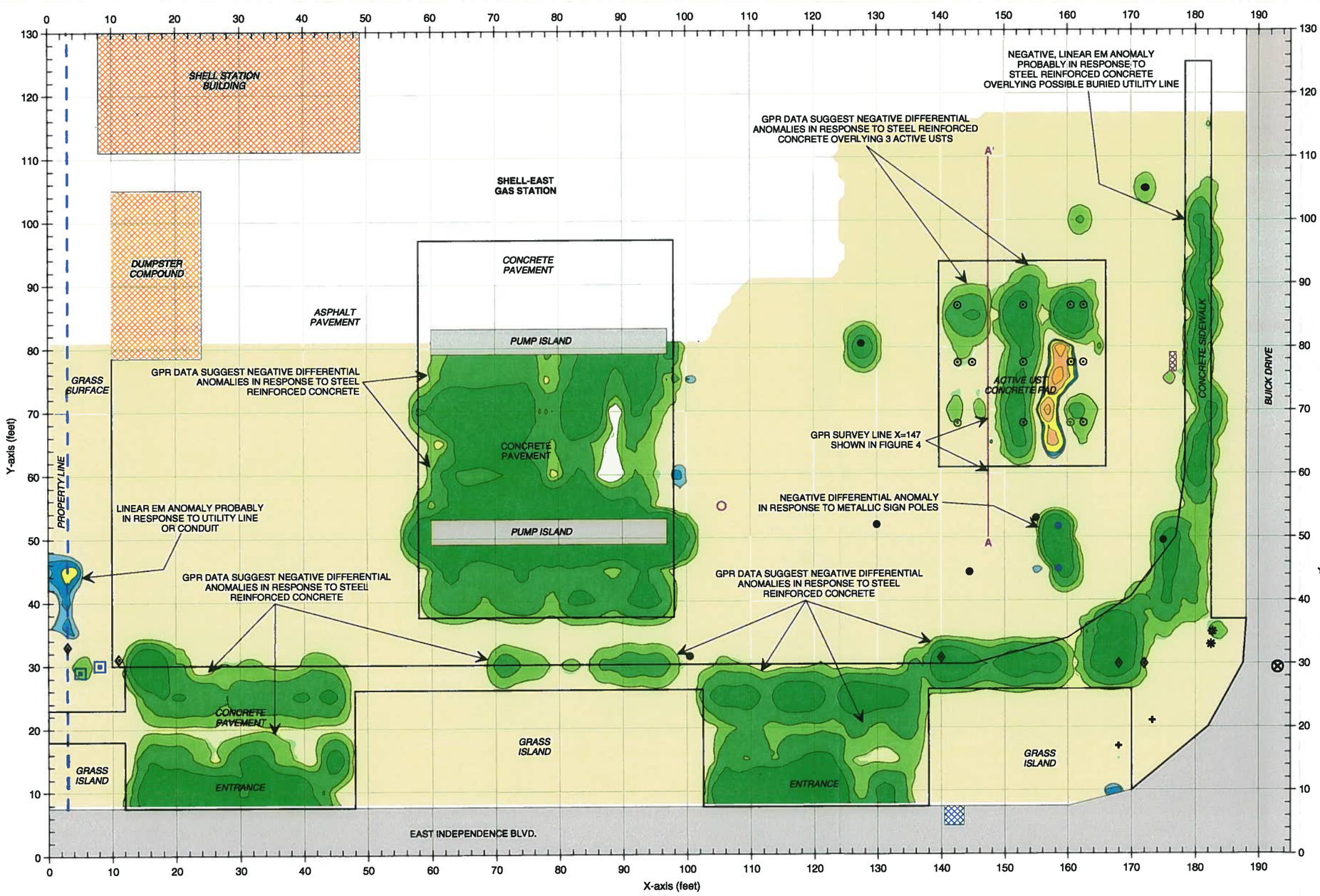
The geophysical investigation detected the active (known) USTs but did not detect additional, unknown metallic USTs within the surveyed portion of the site.

CLIENT	KLEINFELDER
SITE	CEW PROPERTIES, LLC SITE (PARCEL 132)
CITY	CHARLOTTE
STATE	NORTH CAROLINA
TITLE	GEOPHYSICAL RESULTS
GRAPHIC SCALE IN FEET	
DRAWN	MJD
CHKD	
LAY	
DWG	
DATE	08/09/10
JOB NO.	2010-153
FIGURE	

PYRAMID ENVIRONMENTAL & ENGINEERING, P.C.

EM61 METAL DETECTION (BOTTOM COIL RESULTS)

FIGURE 3



APPROXIMATE NORTH

LEGEND

- SURVEY AREA: EM61 DATA ACQUIRED ALONG Y-AXIS TRENDING LINES SPACED 5 FEET APART
- BUILDING OR STRUCTURE
- BUSINESS SIGN POLE
- GAS LINE VALVE COVER
- GUY WIRE
- MONITORING WELL
- MANHOLE COVER
- PVC VENT PIPE
- ROAD SIGN
- STORM SEWER GRATE
- UTILITY OR LAMP POLE
- WATER METER BOX
- UST VALVE COVER
- UST VENT PIPE

EM61 DIFFERENTIAL RESPONSE (MILLIVOLTS)

-5000 -400 -200 -100 -90 -45 -80 -75 -100 -150 -200 -300 -400 -500 -750 -1000

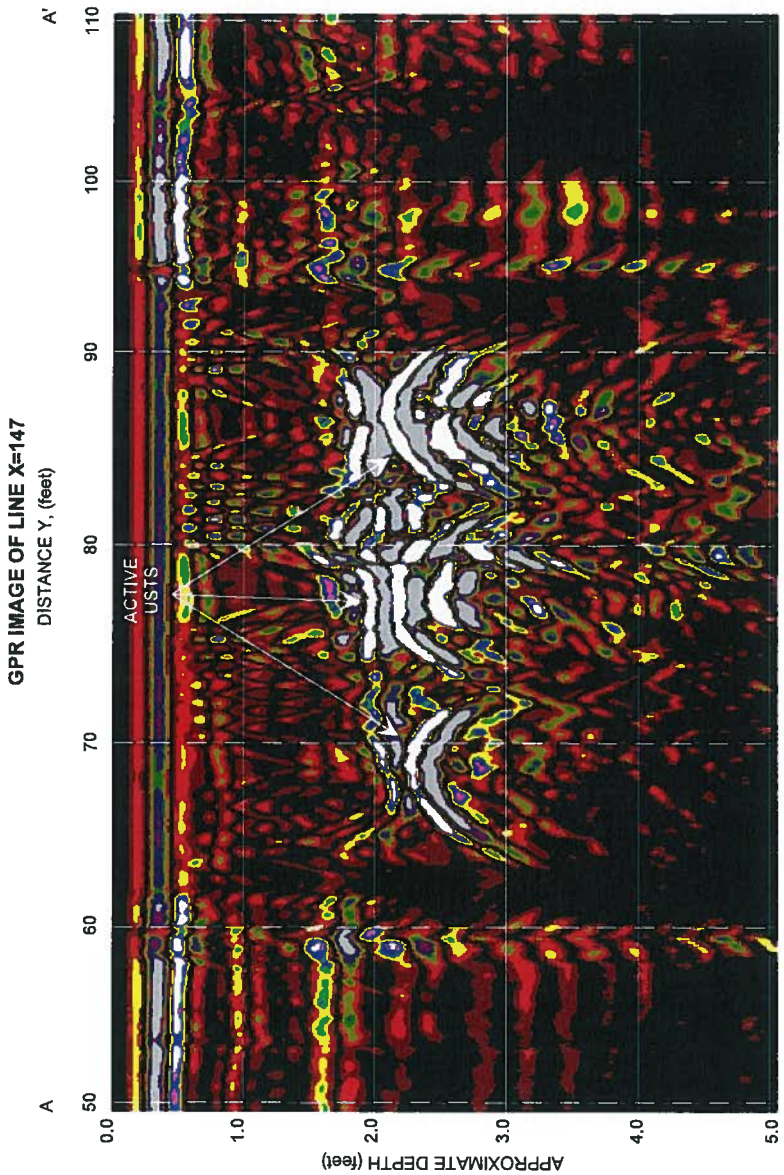
Note: The contour plot shows the differential response between the bottom and top coils of the EM61 instrument in millivolts (mV). The differential response focuses on larger, buried metallic objects such as drums and USTs and ignores smaller misc. buried, metal debris. The EM metal detection data were collected on June 25, 2010 using a Geonics EM61 instrument. Ground penetrating radar (GPR) data were acquired on July 1, 2010 using a Geophysical Survey Systems SIR 2000 instrument with a 400 MHz antenna.

The geophysical investigation detected the active (known) USTs but did not detect additional, unknown metallic USTs within the surveyed portion of the site.

GRAPHIC SCALE IN FEET

CLIENT	KLEINFELDER
SITE	CEW PROPERTIES, LLC SITE (PARCEL 132)
CITY	CHARLOTTE
STATE	NORTH CAROLINA
TITLE	GEOPHYSICAL RESULTS
J-NO.	2010-153
DWG	
LAY	
DATE	08/09/10
DRWN	MJD
CHKD	
FIGURE	

PYRAMID
ENVIRONMENTAL & ENGINEERING, P.C.



The image of GPR survey line X=147 recorded three high amplitude, hyperbolic anomalies (reflections shaded in white) from grid line Y=65 to grid line Y=90 that are probably in response to the three active USTs buried approximately 2.0 feet below the concrete surface. The high amplitude responses suggest the USTs are metallic. The solid purple line labeled AA' in Figure 3 represents the location of GPR image X=147.

PYRAMID
ENVIRONMENTAL & ENGINEERING, P.C.

CLIENT	KLEINFELDER		DATE 08/07/10	DRWN MJD	
SITE	CEW PROPERTIES, LLC SITE (PARCEL 132)		LAT	CHKD	
CITY	CHARLOTTE	STATE NORTH CAROLINA	DWG		
TITLE	GEOPHYSICAL RESULTS		JOB 2010-153	SCALE	

IMAGE OF GPR
SURVEY LINE X=147

FIGURE 4

APPENDIX C

LOG OF BORING B-1

SHEET 1 OF 1

Client NCDOT
Project Name U-0209B
Number 111989
Location Parcel 132-Sams Mart

Drill Contractor Probe Techology
Drill Method 2 inch Direct Push
Drilling Started 7/19/10 Ended 7/19/10
Logged By T. Stewart

Elevation --
Total Depth 12.0
Depth To Water

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
			19.3	CL		Brown, Gray, Sandy Lean CLAY, Dry, Petroleum Odor	
			59.7				
5	SS		127.8	CL		Brown, Gray, Lean CLAY, Wet, Petroleum Odor	5
			91.9				
10			121				10
						Boring Terminated at 12 feet in RESIDUAL	
15							15
20							20
25							25
30							30

Kleinfelder
313 Gallimore Dairy Road
Greensboro, NC 27409
Telephone: 336-668-0093
Fax: 336-668-3868

Remarks Sample B-1 collected from 5-7.5 ft. submitted for laboratory analysis.

See key sheet for symbols and abbreviations used above.

LOG OF BORING B-2

SHEET 1 OF 1

Client NCDOT | Drill Contractor Probe Techology

Project Name U-0209B | Drill Method 2 inch Direct Push | Elevation --

Number 111989 | Drilling Started 7/19/10 Ended 7/19/10 | Total Depth 12.0

Location Parcel 132-Sams Mart | Logged By T. Stewart | Depth To Water

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
			51.8	CL		Red, Brown, Lean CLAY, Dry, Petroleum Odor	
			367	CL		Brown, Gray, Sandy Lean CLAY, Dry, Petroleum Odor	
5			1293			Brown, Gray, Lean CLAY, Wet, Petroleum Odor	5
	SS		1360	CL			
10			83.4				10
						Boring Terminated at 12 feet in RESIDUAL	
15							15
20							20
25							25
30							30

Kleinfelder
313 Gallimore Dairy Road
Greensboro, NC 27409
Telephone: 336-668-0093
Fax: 336-668-3868

Remarks Sample B-2 collected from 7.5-10 ft. submitted for laboratory analysis.

See key sheet for symbols and abbreviations used above.

LOG OF BORING B-3

SHEET 1 OF 1

Client NCDOT
Project Name U-0209B
Number 111989
Location Parcel 132-Sams Mart

Drill Contractor Probe Techology
Drill Method 2 inch Direct Push
Drilling Started 7/19/10 Ended 7/19/10
Logged By T. Stewart

Elevation --
Total Depth 12.0
Depth To Water

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
0			2.7	CL		Red Brown, Gray, Lean CLAY, Dry, Petroleum Odor	0
			43.3				
5			75.6				5
	SS		1187				
10			40.4				10
						Boring Terminated at 12 feet in RESIDUAL	
15							15
20							20
25							25
30							30

Kleinfelder
313 Gallimore Dairy Road
Greensboro, NC 27409
Telephone: 336-668-0093
Fax: 336-668-3868

Remarks Sample B-3 collected from 7.5-10 ft. submitted for laboratory analysis.

See key sheet for symbols and abbreviations used above.

LOG A EWNN05 111989D.GPJ LOG A EWNN05.GDT 8/6/10

LOG OF BORING B-4

SHEET 1 OF 1

Client NCDOT | Drill Contractor Probe Techology | Elevation --

Project Name U-0209B | Drill Method 2 inch Direct Push | Total Depth 12.0

Number 111989 | Drilling Started 7/19/10 Ended 7/19/10 | Depth To Water

Location Parcel 132-Sams Mart | Logged By T. Stewart

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
0			573	CL		Red Brown, Brown, Lean CLAY, Hard, Dry, Petroleum Odor	0
5			1493				5
			1569				
10	SS		1637	CL		Dark Gray, Lean CLAY, Tacky, Dry, Petroleum Odor	10
			1239				
						Boring Terminated at 12 feet in RESIDUAL	
15							15
20							20
25							25
30							30

Kleinfelder
313 Gallimore Dairy Road
Greensboro, NC 27409
Telephone: 336-668-0093
Fax: 336-668-3868

Remarks Sample B-4 collected from 7.5-10 ft. submitted for laboratory analysis.

See key sheet for symbols and abbreviations used above.

LOG OF BORING B-5

SHEET 1 OF 1

Client NCDOT | Drill Contractor Probe Techology

Project Name U-0209B | Drill Method 2 inch Direct Push | Elevation --

Number 111989 | Drilling Started 7/19/10 Ended 7/19/10 | Total Depth 12.0

Location Parcel 132-Sams Mart | Logged By T. Stewart | Depth To Water

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
5	SS		2.3 14.8 12.4	CL		Red Brown, Brown, Lean CLAY, Hard, Dry, Petroleum Odor	5
10			12.8 4.6	CL		Gray, Lean CLAY, Tacky, Dry, Petroleum Odor	10
						Boring Terminated at 12 feet in RESIDUAL	
15							15
20							20
25							25
30							30

Kleinfelder
313 Gallimore Dairy Road
Greensboro, NC 27409
Telephone: 336-668-0093
Fax: 336-668-3868

Remarks Sample B-5 collected from 2.5-5 ft. submitted for laboratory analysis.

See key sheet for symbols and abbreviations used above.

LOG OF BORING B-6

SHEET 1 OF 1

Client NCDOT | Drill Contractor Probe Techology | Elevation --

Project Name U-0209B | Drill Method 2 inch Direct Push | Total Depth 10.0

Number 111989 | Drilling Started 7/19/10 Ended 7/19/10

Location Parcel 132-Sams Mart | Logged By T. Stewart | Depth To Water

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
0			1.4			Red Brown, Brown, Lean CLAY, Hard, Dry, Petroleum Odor	0
			9.2	CL			
5	SS		12.3				5
			7.4	CL		Brown, Gray, Lean CLAY, Tacky, Wet, Petroleum Odor	
10						Boring Terminated at 10 feet in RESIDUAL	10
15							15
20							20
25							25
30							30

Kleinfelder
313 Gallimore Dairy Road
Greensboro, NC 27409
Telephone: 336-668-0093
Fax: 336-668-3868

Remarks Sample B-6 collected from 5-7.5 ft. submitted for laboratory analysis.

See key sheet for symbols and abbreviations used above.

LOG A EWNN05 111989D.GPJ LOG A EWNN05.GDT 8/6/10

LOG OF BORING B-7

SHEET 1 OF 1

Client NCDOT
Project Name U-0209B
Number 111989
Location Parcel 132-Sams Mart

Drill Contractor Probe Techology
Drill Method 2 inch Direct Push
Drilling Started 7/19/10 Ended 7/19/10
Logged By T. Stewart

Elevation --
Total Depth 5.0
Depth To Water

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
0			0.7	CL		Red Brown, Brown, Lean CLAY, Hard, Dry, Petroleum Odor	0
5	SS		83.6			Boring Terminated at 5 feet in RESIDUAL	5
10							10
15							15
20							20
25							25
30							30

Kleinfelder
313 Gallimore Dairy Road
Greensboro, NC 27409
Telephone: 336-668-0093
Fax: 336-668-3868

Remarks Sample B-7 collected from 2.5-5 ft. submitted for laboratory analysis.

See key sheet for symbols and abbreviations used above.

LOG A EWNN05 111989D.GPJ LOG A EWNN05.GDT 8/6/10

LOG OF BORING B-8

SHEET 1 OF 1

Client NCDOT | Drill Contractor Probe Techology | Elevation --

Project Name U-0209B | Drill Method 2 inch Direct Push

Number 111989 | Drilling Started 7/19/10 Ended 7/19/10 | Total Depth 5.0

Location Parcel 132-Sams Mart | Logged By T. Stewart | Depth To Water

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
0			1.7	CL		Red Brown, Brown, Lean CLAY, Hard, Dry, Petroleum Odor	0
5	SS		72.4			Boring Terminated at 5 feet in RESIDUAL	5
10							10
15							15
20							20
25							25
30							30

Kleinfelder
313 Gallimore Dairy Road
Greensboro, NC 27409
Telephone: 336-668-0093
Fax: 336-668-3868

Remarks Sample B-8 collected from 2.5-5 ft. submitted for laboratory analysis.

See key sheet for symbols and abbreviations used above.

LOG A EWNN05 111989D.GPJ LOG A EWNN05.GDT 8/6/10

LOG OF BORING B-9

SHEET 1 OF 1

Client NCDOT
Project Name U-0209B
Number 111989
Location Parcel 132-Sams Mart

Drill Contractor Probe Techology
Drill Method 2 inch Direct Push
Drilling Started 7/19/10 Ended 7/19/10
Logged By T. Stewart

Elevation --
Total Depth 5.0
Depth To Water

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
0			15.3	CL		Red Brown, Lean CLAY, Hard, Dry, Petroleum Odor	0
5	SS		1349			Boring Terminated at 5 feet in RESIDUAL	5
10							10
15							15
20							20
25							25
30							30

Kleinfelder
313 Gallimore Dairy Road
Greensboro, NC 27409
Telephone: 336-668-0093
Fax: 336-668-3868

Remarks Sample B-9 collected from 2.5-5 ft. submitted for laboratory analysis.

See key sheet for symbols and abbreviations used above.

APPENDIX D

PRISM LABORATORIES, INC.
Full-Service Analytical & Environmental Solutions

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

Case Narrative

07/29/2010

Kleinfelder SE, Inc. (NCDOT Project)
John Stewart
313 Gallimore Dairy Rd.
Greensboro, NC 27409

Project: NCDOT Parcel #132
Project No.: WBS# 34749.1.1
Lab Submittal Date: 07/19/2010
Prism Work Order: 0070511

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

Data Qualifiers Key Reference:

A	Surrogate was diluted out.
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

07/29/2010

Prism Work Order: 0070511

Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received
B-1(5-7.5)	0070511-01	Soil	07/19/10	07/19/10
B-2(7.5-10)	0070511-02	Soil	07/19/10	07/19/10
B-3(7.5-10)	0070511-03	Soil	07/19/10	07/19/10
B-4(7.5-10)	0070511-04	Soil	07/19/10	07/19/10
B-5(2.5-5)	0070511-05	Soil	07/19/10	07/19/10
B-6(5-7.5)	0070511-06	Soil	07/19/10	07/19/10
B-7(2.5-5)	0070511-07	Soil	07/19/10	07/19/10
B-8(2.5-5)	0070511-08	Soil	07/19/10	07/19/10
B-9(2.5-5)	0070511-09	Soil	07/19/10	07/19/10

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

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

Kleinfelder SE, Inc. (NCDOT Project)
Attn: John Stewart
313 Gallimore Dairy Rd.
Greensboro, NC 27409

Project: NCDOT Parcel #132

Project No.: WBS# 34749.1.1
Sample Matrix: Soil

Client Sample ID: B-1(5-7.5)
Prism Sample ID: 0070511-01
Prism Work Order: 0070511
Time Collected: 07/19/10 07:53
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									
Diesel Range Organics	**420**	**mg/kg dry**	**45**	**7.2**	**5**	***8015C**	**7/28/10 11:35**	**GRR**	**P0G0529**
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*108 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	**4400**	**mg/kg dry**	**160**	**21**	**1000**	***8015C**	**7/26/10 17:14**	**HPE**	**P0G0492**
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*0 %*		*55-129*	*A*
General Chemistry Parameters									
% Solids	**78.4**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**7/22/10 14:15**	**JAB**	**P0G0481**

Kleinfelder SE, Inc. (NCDOT Project)
Attn: John Stewart
313 Gallimore Dairy Rd.
Greensboro, NC 27409

Project: NCDOT Parcel #132

Project No.: WBS# 34749.1.1
Sample Matrix: Soil

Client Sample ID: B-2(7.5-10)
Prism Sample ID: 0070511-02
Prism Work Order: 0070511
Time Collected: 07/19/10 08:02
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	**61**	**mg/kg dry**	**8.9**	**1.4**	**1**	***8015C**	**7/27/10 20:14**	**GRR**	**P0G0529**
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*94 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	**2400**	**mg/kg dry**	**75**	**9.8**	**500**	***8015C**	**7/26/10 16:44**	**HPE**	**P0G0492**
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*0 %*		*55-129*	*A*
General Chemistry Parameters									
% Solids	**78.4**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**7/22/10 14:15**	**JAB**	**P0G0481**

Kleinfelder SE, Inc. (NCDOT Project)
Attn: John Stewart
313 Gallimore Dairy Rd.
Greensboro, NC 27409

Project: NCDOT Parcel #132

Project No.: WBS# 34749.1.1
Sample Matrix: Soil

Client Sample ID: B-3(7.5-10)
Prism Sample ID: 0070511-03
Prism Work Order: 0070511
Time Collected: 07/19/10 08:10
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	**20**	**mg/kg dry**	**8.6**	**1.4**	**1**	***8015C**	**7/27/10 20:50**	**GRR**	**P0G0529**
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*93 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	**360**	**mg/kg dry**	**13**	**1.7**	**100**	***8015C**	**7/26/10 15:42**	**HPE**	**P0G0492**
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*102 %*		*55-129*	
General Chemistry Parameters									
% Solids	**81.1**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**7/22/10 14:15**	**JAB**	**P0G0481**

Kleinfelder SE, Inc. (NCDOT Project)
Attn: John Stewart
313 Gallimore Dairy Rd.
Greensboro, NC 27409

Project: NCDOT Parcel #132

Project No.: WBS# 34749.1.1
Sample Matrix: Soil

Client Sample ID: B-4(7.5-10)
Prism Sample ID: 0070511-04
Prism Work Order: 0070511
Time Collected: 07/19/10 08:17
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	**73**	**mg/kg dry**	**9.2**	**1.5**	**1**	***8015C**	**7/27/10 21:25**	**GRR**	**P0G0529**
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*71 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	**2000**	**mg/kg dry**	**140**	**18**	**1000**	***8015C**	**7/24/10 0:46**	**HPE**	**P0G0492**
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*0 %*		*55-129*	*A*
General Chemistry Parameters									
% Solids	**76.5**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**7/22/10 14:15**	**JAB**	**P0G0481**

Kleinfelder SE, Inc. (NCDOT Project)
Attn: John Stewart
313 Gallimore Dairy Rd.
Greensboro, NC 27409

Project: NCDOT Parcel #132

Project No.: WBS# 34749.1.1
Sample Matrix: Soil

Client Sample ID: B-5(2.5-5)
Prism Sample ID: 0070511-05
Prism Work Order: 0070511
Time Collected: 07/19/10 08:22
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	8.7	1.4	1	*8015C	7/27/10 22:00	GRR	P0G0529
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*89 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	5.5	0.71	50	*8015C	7/23/10 16:24	HPE	P0G0492
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*93 %*		*55-129*	
General Chemistry Parameters									
% Solids	**80.7**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**7/22/10 14:15**	**JAB**	**P0G0481**

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

Kleinfelder SE, Inc. (NCDOT Project)
Attn: John Stewart
313 Gallimore Dairy Rd.
Greensboro, NC 27409

Project: NCDOT Parcel #132

Project No.: WBS# 34749.1.1
Sample Matrix: Soil

Client Sample ID: B-6(5-7.5)
Prism Sample ID: 0070511-06
Prism Work Order: 0070511
Time Collected: 07/19/10 08:31
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	8.8	1.4	1	*8015C	7/27/10 22:36	GRR	P0G0529
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*89 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	9.8	1.3	50	*8015C	7/23/10 16:56	HPE	P0G0492
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*94 %*		*55-129*	
General Chemistry Parameters									
% Solids	**79.2**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**7/22/10 14:15**	**JAB**	**P0G0481**

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Laboratory Report

07/29/2010

Kleinfelder SE, Inc. (NCDOT Project)
Attn: John Stewart
313 Gallimore Dairy Rd.
Greensboro, NC 27409

Project: NCDOT Parcel #132

Project No.: WBS# 34749.1.1
Sample Matrix: Soil

Client Sample ID: B-7(2.5-5)
Prism Sample ID: 0070511-07
Prism Work Order: 0070511
Time Collected: 07/19/10 08:34
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	8.5	1.4	1	*8015C	7/27/10 23:47	GRR	P0G0529
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*93 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	**35**	**mg/kg dry**	**5.7**	**0.75**	**50**	***8015C**	**7/23/10 17:58**	**HPE**	**P0G0492**
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*99 %*		*55-129*	
General Chemistry Parameters									
% Solids	**81.8**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**7/22/10 14:15**	**JAB**	**P0G0481**

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Laboratory Report

07/29/2010

Kleinfelder SE, Inc. (NCDOT Project)
Attn: John Stewart
313 Gallimore Dairy Rd.
Greensboro, NC 27409

Project: NCDOT Parcel #132

Project No.: WBS# 34749.1.1
Sample Matrix: Soil

Client Sample ID: B-8(2.5-5)
Prism Sample ID: 0070511-08
Prism Work Order: 0070511
Time Collected: 07/19/10 08:39
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	8.3	1.3	1	*8015C	7/28/10 0:22	GRR	P0G0529
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*93 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	**11**	**mg/kg dry**	**6.9**	**0.89**	**50**	***8015C**	**7/23/10 18:30**	**HPE**	**P0G0492**
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*100 %*		*55-129*	
General Chemistry Parameters									
% Solids	**84.3**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**7/22/10 14:15**	**JAB**	**P0G0481**

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Laboratory Report

07/29/2010

Kleinfelder SE, Inc. (NCDOT Project)
Attn: John Stewart
313 Gallimore Dairy Rd.
Greensboro, NC 27409

Project: NCDOT Parcel #132

Project No.: WBS# 34749.1.1
Sample Matrix: Soil

Client Sample ID: B-9(2.5-5)
Prism Sample ID: 0070511-09
Prism Work Order: 0070511
Time Collected: 07/19/10 08:43
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	**32**	**mg/kg dry**	**8.8**	**1.4**	**1**	***8015C**	**7/28/10 0:58**	**GRR**	**P0G0529**
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*91 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	**210**	**mg/kg dry**	**5.4**	**0.71**	**50**	***8015C**	**7/23/10 19:01**	**HPE**	**P0G0492**
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*118 %*		*55-129*	
General Chemistry Parameters									
% Solids	**79.2**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**7/26/10 12:18**	**JAB**	**P0G0505**

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Kleinfelder SE, Inc. (NCDOT Project)
Attn: John Stewart
313 Gallimore Dairy Rd.
Greensboro, NC 27409

Project: NCDOT Parcel #132

Project No: WBS# 34749.1.1

Prism Work Order: 0070511
Time Submitted: 7/19/10 2:57:00PM

Gasoline Range Organics by GC/FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0G0492 - 5035										
Blank (P0G0492-BLK1)				Prepared & Analyzed: 07/23/10						
Gasoline Range Organics	BRL	5.0	mg/kg wet							
Surrogate: a,a,a-Trifluorotoluene	*4.50*		*mg/kg wet*	*5.00*		*90*	*55-129*			
LCS (P0G0492-BS1)				Prepared & Analyzed: 07/23/10						
Gasoline Range Organics	41.5	5.0	mg/kg wet	50.0		83	67-116			
Surrogate: a,a,a-Trifluorotoluene	*5.15*		*mg/kg wet*	*5.00*		*103*	*55-129*			
LCS Dup (P0G0492-BSD1)				Prepared & Analyzed: 07/23/10						
Gasoline Range Organics	44.4	5.0	mg/kg wet	50.0		89	67-116	7	200	
Surrogate: a,a,a-Trifluorotoluene	*5.25*		*mg/kg wet*	*5.00*		*105*	*55-129*			

Kleinfelder SE, Inc. (NCDOT Project)
Attn: John Stewart
313 Gallimore Dairy Rd.
Greensboro, NC 27409

Project: NCDOT Parcel #132

Project No: WBS# 34749.1.1

Prism Work Order: 0070511
Time Submitted: 7/19/10 2:57:00PM

Diesel Range Organics by GC/FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	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*			

Sample Extraction Data

Prep Method: 3545A

Lab Number	Batch	Initial	Final	Date
0070511-01	P0G0529	24.99 g	1 mL	07/26/10
0070511-02	P0G0529	25.11 g	1 mL	07/26/10
0070511-03	P0G0529	25.08 g	1 mL	07/26/10
0070511-04	P0G0529	24.99 g	1 mL	07/26/10
0070511-05	P0G0529	25 g	1 mL	07/26/10
0070511-06	P0G0529	25.09 g	1 mL	07/26/10
0070511-07	P0G0529	25.05 g	1 mL	07/26/10
0070511-08	P0G0529	25.16 g	1 mL	07/26/10
0070511-09	P0G0529	24.98 g	1 mL	07/26/10

Prep Method: 5035

Lab Number	Batch	Initial	Final	Date
0070511-01	P0G0492	3.94 g	5 mL	07/23/10
0070511-02	P0G0492	4.23 g	5 mL	07/23/10
0070511-03	P0G0492	4.64 g	5 mL	07/23/10
0070511-04	P0G0492	4.6 g	5 mL	07/23/10
0070511-05	P0G0492	5.68 g	5 mL	07/23/10
0070511-06	P0G0492	3.21 g	5 mL	07/23/10
0070511-07	P0G0492	5.33 g	5 mL	07/23/10
0070511-08	P0G0492	4.32 g	5 mL	07/23/10
0070511-09	P0G0492	5.8 g	5 mL	07/23/10

NO PREP

Lab Number	Batch	Initial	Final	Date
0070511-01	P0G0481	30 g	30 mL	07/22/10
0070511-02	P0G0481	30 g	30 mL	07/22/10
0070511-03	P0G0481	30 g	30 mL	07/22/10
0070511-04	P0G0481	30 g	30 mL	07/22/10
0070511-05	P0G0481	30 g	30 mL	07/22/10
0070511-06	P0G0481	30 g	30 mL	07/22/10
0070511-07	P0G0481	30 g	30 mL	07/22/10
0070511-08	P0G0481	30 g	30 mL	07/22/10
0070511-09	P0G0505	30 g	30 mL	07/23/10

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CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 QUOTE # TO ENSURE PROPER BILLING:

Client Company Name: Kleinfelder
Report To/Contact Name: John Stewart
Reporting Address: 313 Gallimore Dairy Rd, Greensboro, NC 27409
Phone: 336-668-0093 Fax (Yes) (No):
Email (Yes) (No) Email Address: JMStewart@Kleinfelder.com
EDD Type: PDF ✓ Excel ___ Other ___
Site Location Name: Parcel 132
Site Location Physical Address: Charlotte, NC

Project Name: NCDOT – Parcel 132
Short Hold Analysis: (Yes) (No) UST Project: (Yes) (No)
*Please ATTACH any project specific reporting (QC LEVEL I II III IV) provisions and/or QC Requirements
Invoice To: John Stewart
Address: Same

Purchase Order No./Billing Reference 111984
Requested Due Date ☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 4 Days ☐ 5 Days
"Working Days" ☐ 6-9 Days ☒ Standard 10 days ☐ Rush Work Must Be Pre-Approved
Samples received after 15:00 will be processed next business day.
Turnaround time is based on business days, excluding weekends and holidays.
(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

LAB USE ONLY

	YES	NO	N/A
Samples INTACT upon arrival?	✓		
Received ON WET ICE? Temp 3.2	✓		
PROPER PRESERVATIVES indicated?	✓		
Received WITHIN HOLDING TIMES?	✓		✓
CUSTODY SEALS INTACT?			✓
VOLATILES rec'd W/OUT HEADSPACE?	✓		N
PROPER CONTAINERS used?	✓		

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL
Certification: NELAC ___ USACE ___ FL ___ NC ___
SC ___ OTHER ___ N/A ___
Water Chlorinated: YES ___ NO ✗
Sample Iced Upon Collection: YES ✗ NO ___

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER *TYPE SEE BELOW	NO.	SIZE	PRESERVA-TIVES	DRO	GRO					REMARKS	PRISM LAB ID NO.
B-1(5-7.5)	7/19/10	0753	SO		4		Methanol	X	X						01
B-2(7.5-10)	↓	0802	↓		↓		↓	X	X						02
B-3(7.5-10)	↓	0810	↓		↓		↓	X	X						03
B-4(7.5-10)	↓	0817	↓		↓		↓	X	X						04
B-5(2.5-5)	↓	0822	↓		↓		↓	X	X						05
B-6(5-7.5)	↓	0831	↓		↓		↓	X	X						06
B-7(2.5-5)	↓	0834	↓		↓		↓	X	X						07
B-8(2.5-5)	↓	0839	↓		↓		↓	X	X						08
B-9(2.5-5)	↓	0843	↓		↓		↓	X	X						09

Sampler's Signature [signature] Sampled By (Print Name) TINA M STEWART Affiliation Kleinfelder

PRESS DOWN FIRMLY - 3 COPIES

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

Relinquished By: (Signature)	Received By: (Signature)	Date	Military/Hours
[signature]		7/19/10	1457
	Received For Prism Laboratories By: [signature]	7-19-10	14:57

Additional Comments: WBS# 34749.1.1

PRISM USE ONLY
Site Arrival Time:
Site Departure Time:
Field Tech Fee:
Mileage:

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.
☐ Fed Ex ☐ UPS ☒ Hand-delivered ☐ Prism Field Service ☐ Other ___
COC Group No. 007051

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

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

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