AECOM Technical Services of North Carolina, Inc.
701 Corporate Center Drive, Suite 475, Raleigh, North Carolina 27607
T 919.854.6200 F 919.854.6259 www.earthtech.aecom.com

June 25, 2010

Ms. Cheryl Youngblood, LG
North Carolina Department of Transportation
Geotechnical Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

Reference: Preliminary Site Assessment
Old 311 Curb Market, Inc., Property (Parcel #45)
1799 Union Cross Road
Kernersville, Forsyth County, North Carolina
NCDOT Tip No. U-4909
WBS Element 40278.1.1
AECOM Project No. 60155373

Dear Ms. Youngblood:

AECOM Technical Services of North Carolina, Inc., (AECOM) has completed the Preliminary Site Assessment conducted at the above-referenced property. The work was performed in accordance with the Technical and Cost proposal dated May 3, 2010, and the North Carolina Department of Transportation's (NCDOT's) Notice to Proceed dated May 5, 2010. Activities associated with the assessment consisted of conducting a geophysical investigation, collecting soil samples for laboratory analysis, and reviewing applicable North Carolina Department of Environment and Natural Resources (NCDENR) records. The purpose of this report is to document the field activities, present the laboratory analyses, and provide recommendations regarding the property.

Location and Description

The Old 311 Curb Market, Inc., Property (Parcel #45) is located at 1799 Union Cross Road (SR 2643) in Kernersville, Forsyth County, North Carolina. The property is situated on the east side of Union Cross Road and in the northeast quadrant of the intersection of Union Cross Road and High Point Road (SR 1003) (Figure 1). Based on information supplied by the NCDOT and the site visit, AECOM understands that the site is an active gas station/convenience store (Old 311 Curb Market) where one 4,000-gallon and one 8,000-gallon gasoline underground storage tanks (USTs) are present. The north half of the building is occupied by a tire sales and service shop (Joe's Tire and Service). An inspection of the tire shop indicated the presence of a lift, but the lift is controlled with a small above ground hydraulic fluid reservoir. The structure, subdivided into two businesses, consists of one block building with an asphalt parking lot on the sides and front. A heating oil above ground storage tank (AST) is located on the north side of the building. Canopied pump islands and the USTs are located in front of the convenience store between the

building and Union Cross Road (Figure 2). The NCDOT has advised that the property is a total take and the right-of-way/easement will affect most of the property including the USTs and pump islands (Figure 2). Because of the location of the tanks and pump islands, the NCDOT requested a Preliminary Site Assessment. The scope of work as defined in the Request for Technical and Cost Proposal was to evaluate the site with respect to the presence of known and unknown USTs and assess where contamination may exist on the property. If present, an estimate of the quantity of impacted soil was to be provided.

AECOM reviewed the on-line NCDENR Incident Management database and Incident Number 20997 has been assigned to the property. The NCDOT activities will affect the entire property and, as such, the NCDOT requested that a file search be conducted. Available reports were reviewed and the following summaries have been provided.

Underground Storage Tank Closure Report

This report was prepared by Andrew Raring and submitted in October 1999. The report indicates that five underground storage tanks (USTs) were removed from the site; three 5,000-gallon gasoline tanks, one 1,000-gallon kerosene tank, and one 1,000-gallon diesel fuel tank. According to the closure report, soil samples were collected from below each tank after removal. Elevated soil vapors were detected in soil from below the gasoline tanks. Consequently, additional soil was removed from that excavation. A total of 393.84 tons of potentially contaminated soil was removed from the site and soil samples collected. Laboratory analyses indicated that no petroleum hydrocarbons were detected in confirmation samples. No groundwater was encountered.

No Further Action Letter

In correspondence dated December 17, 1999, the UST Section of the Winston-Salem Regional Office issued a No Further Action letter for the site.

Relevant sections of the UST Closure Report and the No Further Action letter are included in Attachment A. Figure 2 shows the approximate locations of the former USTs.

AECOM also examined the UST registration database to obtain UST ownership information. According to the database, the USTs on the property are operated under Facility Number 0-216532. The operator and owner of the tanks are listed as follows:

Owner
Hutchens Petroleum Corporation
PO Box 272
Stuart, VA 24171-0272
(276) 694-7000

Operator
Old 311 Curb Market
1799 Union Cross Road
Kernersville, NC 27284
(336) 769-4600

Geophysical Survey

Prior to AECOM's mobilization to the site, Pyramid Environmental conducted a geophysical survey as part of this project to evaluate if USTs were present on the proposed right-of-way/easement. The geophysical survey consisted of an electromagnetic survey using a Geonics EM61 time-domain electromagnetic induction meter to locate buried metallic objects, specifically USTs. A survey grid was laid out at the property with the X-axis oriented approximately parallel to High Point Road and the Y-axis oriented approximately perpendicular to High Point Road. The grid was located to cover the accessible portions of the proposed right-of-way. The survey lines were spaced 5 feet apart. Magnetic data was collected continuously along each survey line with a data logger. After collection, the data was reviewed in the field with graphical computer software. Following the electromagnetic survey, a ground penetrating radar (GPR) survey was conducted where needed to further evaluate any significant metallic anomalies.

Access was available to all areas of the property and several anomalies were detected with the geophysical survey. With the exception of the known USTs and pump islands, all of these anomalies were attributed to buried utility lines or conduits, or vehicles. The survey concluded that no metallic USTs, other than the known tanks, were present on the property. A detailed report of findings and interpretations is presented in Attachment B.

Site Assessment Activities

On May 25, 2010, AECOM mobilized to the site to conduct a Geoprobe® direct push investigation to evaluate soil conditions within the proposed right-of-way/easement. Continuous sampling using direct push technology (American Environmental Drilling of Aberdeen, North Carolina) resulted in generally good recovery of soil samples from the direct-push holes. Soil samples were collected and contained in acetate sleeves inside the direct push sampler. Each of these sleeves was divided into 2-foot long sections for soil sample screening. Each 2-foot interval was placed in a resealable plastic bag and the bag was set aside for a sufficient amount of time to allow volatilization of organic compounds from the soil to the bag headspace. The probe of a flame ionization detector/photo ionization detector (FID/PID) was inserted into the bag and the reading was recorded. After terminating the sample hole, the soil sample from the depth interval with the highest FID/PID reading was submitted for analysis to Prism Laboratories in Charlotte, North Carolina, using standard chain-of-custody procedures. The laboratory analyzed the soil samples for total petroleum hydrocarbons (TPH) in the diesel range organics (DRO) and gasoline range organics (GRO).

Eleven direct-push holes (OM-1 through OM-11) were advanced within the property to a depth of 15 feet as shown in Figure 2 and Attachment C. Borings OM-1 through OM-6 were located to evaluate the existing UST area on the property. Borings OM-7 and OM-9 were placed to assess conditions at the former UST locations; boring OM-10 was located to evaluate the lift area of the

tire shop, boring OM-11 was placed to review conditions at the fuel oil AST; and boring OM-8 was advanced as a step-out boring (Attachment D). The lithology encountered by the direct-push samples generally was consistent throughout the site. The ground surface was covered with about 2 to 3 inches of asphalt/gravel or topsoil. Below the surface to a depth of 8 to 12 feet was a medium to reddish brown silt/clay. Underlying this material was a mottled medium brown, reddish brown, and tan silt/sand or a medium to light brown sand saprolite. No bedrock was encountered in any of the borings. The "Geologic Map of North Carolina" dated 1985 indicates that the site is underlain by granite. The saprolite observed at the site is consistent with this parent rock. All the borings were terminated at a depth of 15 feet. No groundwater was observed in any of the borings. Based on field screening, soil samples were submitted for laboratory analyses, which are summarized in Table 1. Following completion, each boring was backfilled in accordance with 15A NCAC 2C.

Analytical Results

Based on the laboratory reports, summarized in Table 1 and presented in Attachment E, petroleum hydrocarbon compounds identified as DRO and/or GRO were detected in three of the eleven soil samples collected from the site. The soil sample from boring OM-6 contained a DRO concentration of 16 mg/kg; the sample from boring OM-7 contained a DRO concnetration of 13 mg/kg; and the sample from boring OM-8 contained a DRO concentration of 13 mg/kg and a GRO concnetration of 220 mg/kg. According to the North Carolina Underground Storage Tank Section's Underground Storage Tank Closure Policy dated August 24, 1998, the action level for TPH analyses is 10 milligrams per kilogram (mg/kg) for both gasoline and diesel fuel. However, that agency's "Guidelines for Assessment and Corrective Action," dated December 2008, does not allow for use of TPH analyses for confirmation of the extent of petroleum contamination or its cleanup. As a result, while TPH concentrations are no longer applicable in determining if soil contamination is present, this analysis is a legitimate screening tool. Based on the TPH action level for UST closures, the assumed action level for this report is 10 mg/kg. All the DRO and GRO concentrations detected in the soil samples were present at a concentration above the 10 mg/kg assumed action level.

Conclusions and Recommendations

A Preliminary Site Assessment was conducted to evaluate the Old 311 Curb Market, Inc., Property (Parcel #45) located at 1799 Union Cross Road in Kernersville, Forsyth County, North Carolina. Eleven soil borings were advanced to evaluate the soil conditions throughout the property. The laboratory reports of the soil samples from these borings suggest that DRO concentrations ranging from 13 to 16 mg/kg were present in three soil samples and one GRO concentration of 220 mg/kg was present in one sample. These concentrations are above the assumed action level.

To evaluate the volume of soil requiring possible remediation, the soil samples with TPH concentrations above 10 mg/kg were considered. The analytical results of the soil samples

suggest that the soil from borings OM-6 (16 mg/kg), OM-7 (13 mg/kg), and OM-8 (13 mg/kg) contained a TPH concentration identified as DRO above the assumed action level and boring OM-8 (220 mg/kg) contained TPH concetration identified as GRO above the assumed actiopn level. These borings represent two areas of contamination (Figure 3). A review of the field screening readings (Table 1) suggests that the thickness of the potentially contaminated soil is about 4 feet in the area of OM-7 and OM-8, and 2 feet at boring OM-6. After estimating the potential contamination geometry using field observations and experience with similar sites and geology, AECOM measured the affected section by using CADD software, which indicated an area of about 3422 ft^2 at borings OM-7 and OM-8, and about 78 ft^2 at boring OM-6. Based on a 4-foot contamination thickness, the OM-7/OM-8 area calculates to a volume of 507 cubic yards. Based on a 2-foot thickness, the OM-6 area calculates to a volume of 6 cubic yards. The total volume calculated for the property is 513 cubic yards. This volume is estimated from TPH analytical data, which are no longer valid for remediation of sites reported after January 2, 1998. After this date, MADEP EPH/VPH and EPA Method 8260/8270 analyses will likely be required to confirm cleanup. However, these analyses do not correlate exactly with TPH data and, as a result, the actual volume of contaminated soil may be higher or lower.

According to the NCDOT plan sheets, both potential contamination areas are within fill sections for road improvements. Because the potential contamination at borings OM-6, OM-7, and OM-8 is at a depth greater than 10 feet, contact with potential contamination is unlikely.

AECOM appreciates the opportunity to work with the NCDOT on this project. Because compounds were detected above the applicable action levels in the soil samples, AECOM recommends that a copy of this report be submitted to the Winston-Salem Regional Office UST Section. If you have any questions, please contact me at (919) 854-6238.

Sincerely,

Michael W. Branson

Michael W. Branson, P.G.
Project Manager

Attachments

c: Project File

TABLE 1

SOIL FIELD SCREENING AND ANALYTICAL RESULTS
OLD 311 CURB MARKET, INC., PROPERTY (PARCEL #45)
KERNERSVILLE, FORSYTH COUNTY, NORTH CAROLINA
NCDOT PROJECT NO. U-4909
WBS ELEMENT 40278.1.1
AECOM PROJECT NO. 60155373

LOCATION	DEPTH (ft)	FID READING (ppm)	SAMPLE ID	ANALYTICAL RESULTS (mg/kg)	ASSUMED ACTION LEVEL (mg/kg)
OM-1	0 - 2	0.01			
	2 - 4	0.01			
	4 - 6	0.01			
	6 - 8	0.03			
	8 - 10	0.24	OM-1	DRO (BQL) GRO (BQL)	10 10
	10 - 12	0.05			
	12 - 14	0.10			
	14 - 15	0.02			
OM-2	0 - 2	6.09			
	2 - 4	27.00			
	4 - 6	66			
	6 - 8	26			
	8 - 10	27			
	10 - 12	9.73			
	12 - 14	45			
	14 - 15	67	OM-2	DRO (BQL) GRO (BQL)	10 10
OM-3	0 - 2	0.10			
	2 - 4	0.15			
	4 - 6	0.05			
	6 - 8	0.05			
	8 - 10	0.21	OM-3	DRO (BQL) GRO (BQL)	10 10
	10 - 12	0.05			
	12 - 14	0.15			
	14 - 15	0.05			
OM-4	0 - 4	0.10			
	4 - 6	0.15			
	6 - 10	0.59	OM-4	DRO (BQL) GRO (BQL)	10 10
	10 - 15	0.47			
OM-5	0 - 2	0.21			
	2 - 4	0.42			
	4 - 6	0.14			
	6 - 8	0.10			
	8 - 10	0.48	OM-5	DRO (BQL) GRO (BQL)	10 10
	10 - 12	0.12			
	12 - 14	0.36			
	14 - 15	0.23			
OM-6	0 - 2	0.01			
	2 - 4	0.14			
	4 - 6	0.06			
	6 - 8	0.02			
	8 - 10	0.16			
	10 - 12	0.21			
	12 - 14	0.31			
	14 - 15	0.50	OM-6	**DRO (16)** GRO (BQL)	10 10

AECOM

TABLE 1 (cont)

SOIL FIELD SCREENING AND ANALYTICAL RESULTS
OLD 311 CURB MARKET, INC., PROPERTY (PARCEL #45)
KERNERSVILLE, FORSYTH COUNTY, NORTH CAROLINA
NCDOT PROJECT NO. U-4909
WBS ELEMENT 40278.1.1
AECOM PROJECT NO. 60155373

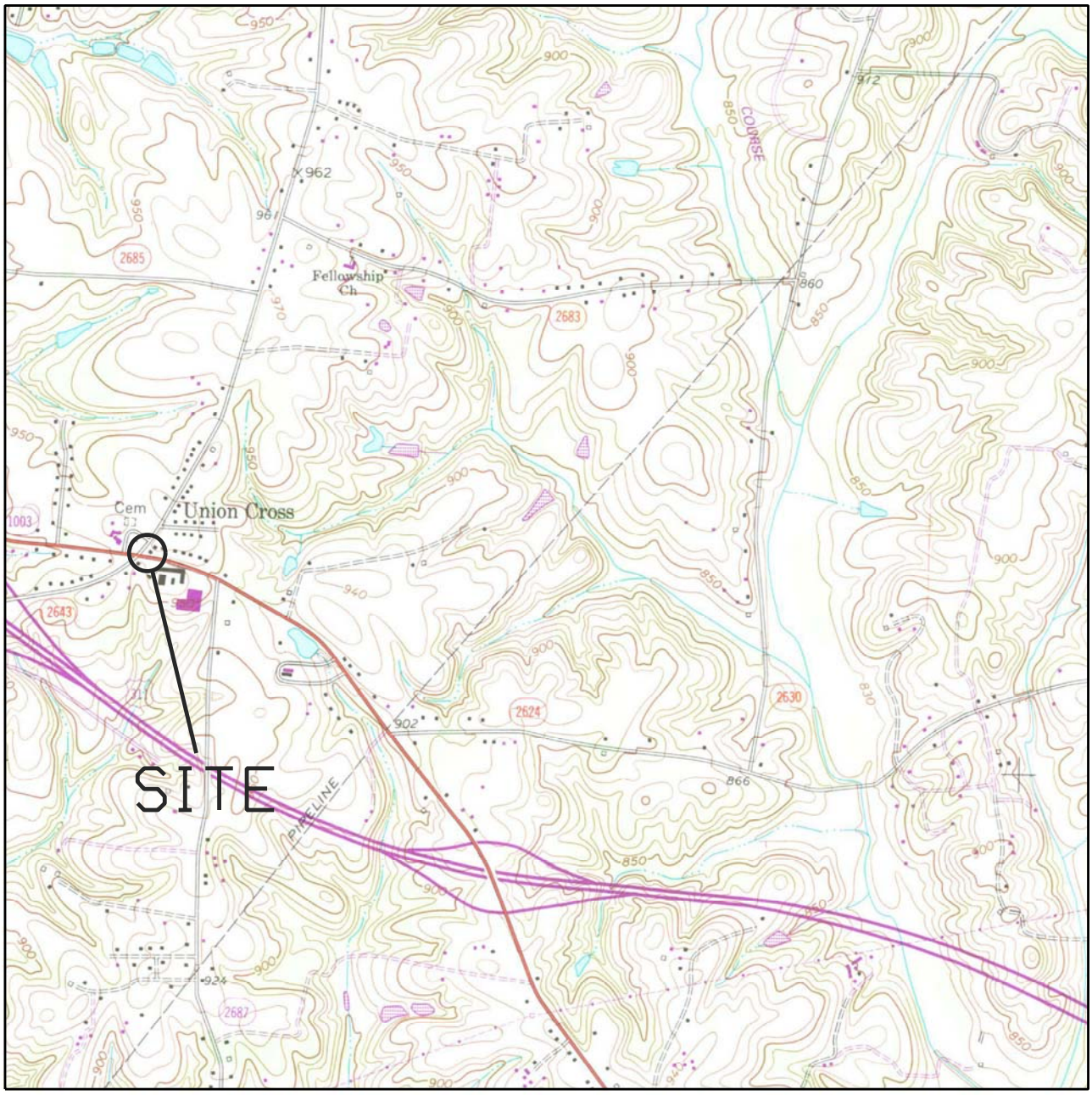
LOCATION	DEPTH (ft)	FID READING (ppm)	SAMPLE ID	ANALYTICAL RESULTS (mg/kg)	ASSUMED ACTION LEVEL (mg/kg)
OM-7	0 - 2	21			
	2 - 4	25			
	4 - 6	23			
	6 - 8	17			
	8 - 10	33			
	10 - 12	7.79			
	12 - 14	17			
	14 - 15	195	OM-7	**DRO (13)** GRO (6.9)	10 10
OM-8	0 - 2	0.41			
	2 - 4	0.44			
	4 - 6	0.34			
	6 - 8	5.75			
	8 - 10	50			
	10 - 12	47			
	12 - 14	94			
	14 - 15	237	OM-8	**DRO (13)** **GRO (220)**	10 10
OM-9	0 - 4	0.22			
	4 - 10	0.39			
	10 - 12	0.09			
	12 - 14	0.31			
	14 - 15	0.47	OM-9	DRO (BQL) GRO (BQL)	10 10
OM-10	0 - 2	0.41			
	2 - 4	0.47			
	4 - 6	0.78	OM-10	DRO (BQL) GRO (BQL)	10 10
	6 - 8	0.42			
	8 - 10	0.54			
	10 - 12	0.41			
	12 - 14	0.50			
	14 - 15	0.55			
OM-11	0 - 2	0.43			
	2 - 4	0.11			
	4 - 6	0.61			
	6 - 8	0.28			
	8 - 10	1.03	OM-11	DRO (BQL) GRO (BQL)	10 10
	10 - 12	0.31			
	12 - 14	0.63			
	14 - 15	0.51			

Soil samples were collected on May 25, 2010.

DRO - Diesel range organics.
GRO - Gasoline range organics.
BQL - Below quantitation limit.
ppm - parts per million.
mg/kg - milligrams per kilogram.
BOLD values are present above the assumed action level.

AECOM

FIGURES



SOURCE: U.S. GEOLOGICAL SURVEY 7.5 MIN QUADRANGLE: KERNERSVILLE, NC (REV 1994)

AECOM

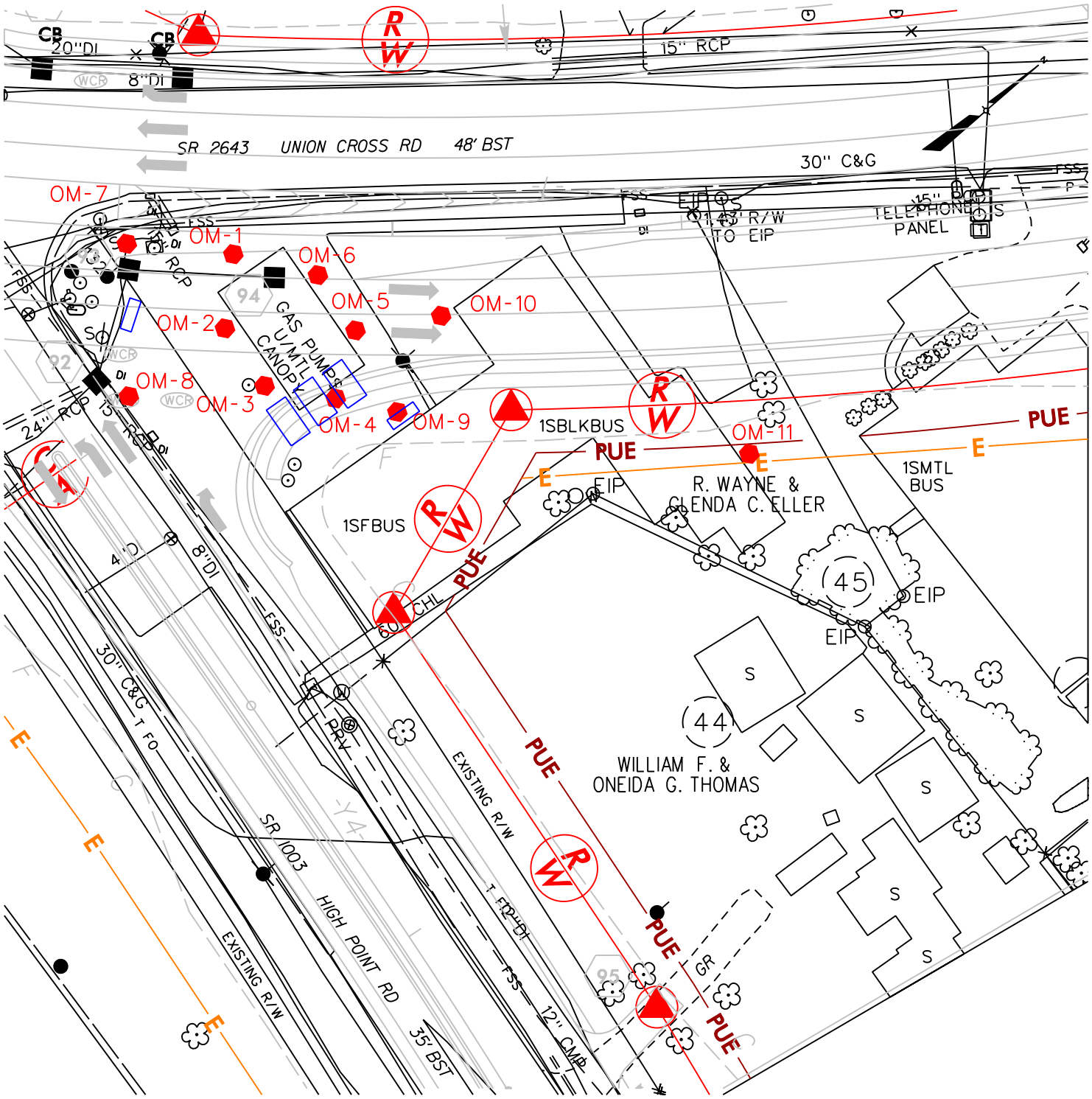
FIGURE 1
VICINITY MAP

OLD 311 CURB MARKET, INC., PROPERTY (PARCEL #45)
KERNERSVILLE, FORSYTH COUNTY NORTH CAROLINA

MAY 2010

60155373

Q:\60155373\CADD\usgsbord.dgn 6/21/2010 2:57:25 PM



NOTE: EXISTING USTS ARE LOCATED UNDER THE PUMP ISLAND.

LEGEND

OM-1

SOIL SAMPLE LOCATION AND IDENTIFICATION

APPROXIMATE LOCATION OF FORMER USTS

0 25 50

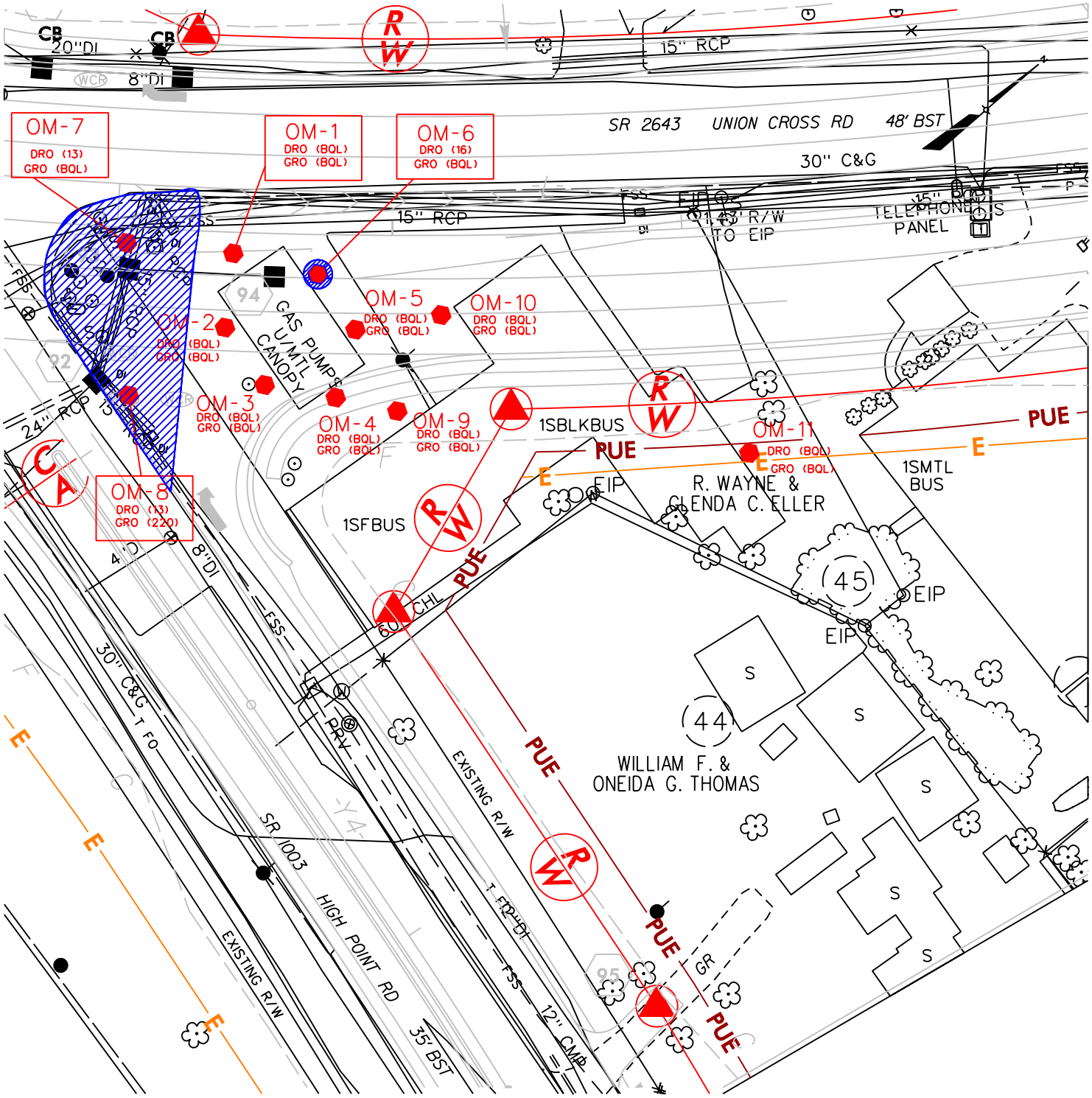
GRAPHIC SCALE (FEET)

AECOM

FIGURE 2
SITE MAP
OLD 311 CURB MARKET, INC., PROPERTY (PARCEL #45)
KERNERSVILLE, FORSYTH COUNTY, NORTH CAROLINA

MAY 2010 60155373

Q:\60155373\CADD\45 fig 2.dgn 7/9/2010 8:22:20 AM



NOTE: EXISTING USTS ARE LOCATED UNDER THE PUMP ISLAND.

LEGEND

OM-1	SOIL SAMPLE LOCATION AND IDENTIFICATION
DRO (123)	TPH AS DIESEL FUEL IN MG/KG
GRO (123)	TPH AS GASOLINE IN MG/KG
BQL	BELOW QUANTITATION LIMIT
	APPROXIMATE AREA OF SOIL CONTAMINATION ABOVE 10 MG/KG

0 25 50
GRAPHIC SCALE (FEET)

AECOM

FIGURE 3
SOIL ANALYTICAL RESULTS MAP
OLD 311 CURB MARKET, INC., PROPERTY (PARCEL #45)
KERNERSVILLE, FORSYTH COUNTY, NORTH CAROLINA

MAY 2010 60155373

Q:\60155373\CADD\45 fig 2.dgn 7/9/2010 8:23:05 AM

ATTACHMENT A

UNDERGROUND STORAGE TANK CLOSURE REPORT

The closure report should contain, at a minimum, the following information. Any other information that is pertinent to the site should be included.

I. General Information

A. Ownership of UST(s)

1. Name of UST owner: **BRINSON DIESEL SALES**
2. Owner address and telephone number: 1304 W. Market Center Drive
   High Point, NC 27260 336-885-5073

B. Facility Information

1. Facility name: **former UNION CROSS EXXON**
2. Facility ID #: 0-016532
3. Facility address, telephone number and county:
   1799 Union Cross Road, Kernersville, NC 27284 (vacant-n/a)
   Forsyth County (at old US Hwy 311)

C. Contacts

1. Name, address, telephone number and job title of primary contact person:
   Jess Brinson, UST owner
   1304 W. Market Center Drive, High Point, NC 27265 336-885-5073
2. Name, address and telephone number of closure contractor:
   Carlyle Teague - TEAGUE PUMP COMPANY
   904 Old Thomasville Road, High Point, NC 336-882-2916
3. Name, address and telephone number of primary consultant:
   Andrew M. Raring, Ph.D., L.G.,
   P. O. Box 34, Bethania, NC 27010 336-922-5219
4. Name, address, telephone number, and State certification number of laboratory:
   David Wessinger, Blue Ridge Labs (NC Certificate Number 275),
   P. O. Box 2940, Lenoir, NC 28645 828-728-0149

D. UST Information

Tank no.	Installation dates	Size in Gallons	Tank Dimensions	Last Contents	Previous Contents (if any)
1	about 1970	5,000	14'9" by 8'	gasoline	n/a
2	about 1970	5,000	14'3" by 8'	gasoline	n/a
3	about 1970	5,000	14'3" by 8'	gasoline	n/a
4	unknown	1,000	11' x 48"	kerosene	n/a
5	unknown	1,000	11' x 48"	fuel oil	n/a

tanks 4 & 5 had been closed in place by filling with concrete prior to regulations.

E. Site Characteristics

1. Describe any past releases at this site:
   no past releases known from these tanks; no spills reported to us.
2. Is the facility active or inactive at this time? If the facility is inactive note the last time the UST was used
   facility is not active; it is vacant and for sale. There are no longer any USTs.
3. Describe surrounding property use (for example, residential, commercial, farming, etc.)
   The facility is at the northeast corner of Union Cross Road and old US Highway 311 in east-central Forsyth County. The surroundings are mixed, with commercial, residential, and agricultural land use. The only other commercial facility is a tire/auto repair shop adjacent to the north. Across Union Cross Road to the west is a large church complex. An elementary school is southeast, across old US 311. Elsewhere along the roads development is residential. New US 311 is about 1/2 mile south.
4. Describe site geology/hydrogeology
   Topography: Piedmont Physiographic Province: elevation is approx. 965 feet above mean sea level. Relief is about 50' within a 1500' radius. The tract is close to flat and sits within a few vertical feet of the highest land in the vicinity. Drainage is to the south. Surface runoff from paved areas is to storm sewer catchments. No permanent water bodies are shown on the topographic map and none were seen within 1500 feet of the site.
   Geology: Milton belt, bedrock is "Biotite Gneiss and Schist. Inequigranular and megacrystic; abundant potassic feldspar and garnet; interlayered and gradational with calc-silicate rock, sillimanite-mica schist, mica schist and amphibolite. Contains small masses of granitic rock," according to the NC Geologic Map, 1985.
   No groundwater or bedrock were found.
   Hydrogeology: an unconfined (soil) aquifer is expected in saprolite soil above bedrock. The bedrock aquifer is generally at least partially confined. Investigation of the groundwater incident has shown the water table to be between 25 and 35 feet under the site.

II. Closure Procedures

A. Describe preparations for closure including the steps taken to notify authorities, permits obtained and the steps taken to clean and purge the tanks
The tanks had been pumped emtpy. The GW/UST3 Notification form was sent to the NC DENR-DWM-UST Section, W-S Regional Office weeks before the removal (copy enclosed). The Forsyth County Fire Marshall's Office was also notified. Mr. Rick Plunkett of that office visited the site during closure.
Dry ice was added early on the morning of removal to flush gasoline fumes from the tanks. The tanks were checked for explosive vapors prior to proceeding.

B. Note the **amount of residual material** pumped from the tank(s):

No residual material was found in the tanks.

C. Describe the storage, sampling and disposal of the residual material:

n/a

D. EXCAVATION

1. Describe excavation procedures noting the condition of the soils and the dimensions of the excavation in relation to the tanks, piping and/or pumps:

   A trackhoe owned and operated by David Kennedy was used to remove the tanks. The pumps sat on a concrete island in front of the store toward Union Cross Road. The island straddled the tanks so that there was no length of product line from the tanks to the pumps.

   First, the pump island canopy was disassembled and removed. Then the concrete pavement and pump island were removed. Soil beneath the pumps was free of gasoline odor or petroleum staining. Soil samples were taken beneath the three pumps.

   The tops of the tanks were then exposed and the pipes were disconnected. A plug was placed in all but one of the tank ports. The tanks were lifted from the hole and taken the same day to Safeway Tank Disposal to be cleaned and cut up for scrap. The USTs were in good condition, with some rust, but no scale or holes. Any sludge recovered in the cleaning process will be disposed of properly by Safeway. A receiving report for the tank is enclosed.

   The gasoline tanks were excavated on September 20, 1999.

   Gasoline odor was present in soil at the base of the tanks and deeper, almost to the final hole depth. The following day, September 21, the hole was completed to its final approximate measurements of 36' by 20' by 16' deep. The excavated soil was loaded on trucks and hauled to Soil Solutions for licensed remediation. UST bottom samples were taken at this point.

   The two abandoned in place USTs were removed late on the 21st and hauled off by David Kennedy. These were not USTs by definition, as they had previously been filled with concrete. The owner wanted an environmental assessment beneath each. At the diesel fuel tank petroleum odor was noticed and some additional soil was hauled to Soil Solutions. The soil samples were taken on the following day from the final holes.

2. Note the depth of tank burial(s) (from land surface to top of tank):

   The tops of the tanks were three feet beneath the concrete paving and pump island on the west side of the building (see site map).

3. Quantity of soil removed:

   no soil was stockpiled.

4. Describe soil type(s):

   Soil: the tanks were installed in river sand.

Native soil in the holes was a light yellowish red, micaceous, sandy silt toward the top. Between 6' color became a mottled reddish brown, silty sand, also micaceous. No foliated or planar gneissic structure was seen.
No groundwater or bedrock was found.

5. Type and source of backfill used:
clean "sandrock" soil from a nearby excavation.

E. Contaminated Soil

Note: Suspected contaminated soil should be segregated from soil that appears to be uncontaminated and should be treated as contaminated until proven otherwise It should not be used as backfill.

1. Describe how it was determined to what extent to excavate the soil:
Determination was made by screening for petroleum odor and discoloration, with confirmation by lab sample analyses.
2. Describe method of **TEMPORARY STORAGE**, sampling and treatment/disposal of soil:
No soil was stockpiled; all soil was either used as backfill or directly hauled to Soil Solutions. A total of 393.84 tons of soil were removed for remediation.

III. Site investigation

A. Provide information on **field screening and observations**, include methods used to calibrate field screening instrument(s):

the soil was screened by observation; discoloration and petroleum odor were the criteria associated with evidence of release.

B. Describe **soil sampling points** and sampling procedures used, including:

Note: Refer to the "Groundwater Section Guidelines for the Investigation and Remediation of Soils and Groundwater" for information about sampling requirements.

- Location of samples
- Type of samples (from excavation, stockpiled soil, etc.)
- Sample collection procedures (grab, split spoon, hand auger, etc.)
- Depth of soil samples (below land surface)
- Whether samples were taken from side or floor of an excavation
- Sample identification
- Sample analyses

Two grab samples of native soil were taken from the beneath each gasoline UST, one from beneath either end. Three samples were also taken from beneath the pumps, above the tanks. Samples were also taken from beneath either end of the former diesel fuel and kerosene tanks, previously abandoned in place. Sample identification is explained on Table 1, following the text report.
The gasoline USTs and pumps samples were extracted by EPA method 5030 (purge & trap) and analyzed by EPA method 8015m, for total petroleum hydrocarbons (TPH) as gasoline.
The other samples were extracted by 5030 and 3550 and analyzed for TPH in the low and mid-boiling point ranges.

C. Describe **GROUNDWATER** or surface water sampling procedures used, including:

NOT APPLICABLE - no groundwater

D. QUALITY CONTROL MEASURES

- Describe sample handling procedures including sample preservation and transportation

The samples were gathered by hand from teeth of the trackhoe bucket. The samples were packed in glass jars provided by lab. New vinyl gloves were worn. A chain of custody was established and the sample was packed in ice in a cooler. Cooler was delivered to lab personnel within 72 hrs.

- Describe decontamination procedures used

new vinyl gloves were worn for each sample

- Describe time and date samples were collected and date submitted to lab

The samples were collected on September 20, 21, and 22 and were turned over to Blue Ridge Labs personnel on September 23.

- Describe samples collected for quality control purposes (e.g. duplicates, field blanks, trip blanks, etc.) Include methods used to obtain these samples and analytical parameters.

None were collected

- Discuss how results of quality control samples may have affected your interpretation of soil, groundwater or surface water sample results

N/A

E. INVESTIGATION RESULTS

- Describe results of Site Sensitivity Evaluation (SSE), (if SSE was not conducted, explain why not)

The SSE procedure is not needed, as no concentration thresholds were exceeded.

Public water supply is available and apparently used by all in the vicinity. No supply wells were seen or reported but it is reasonable to assume that there may be several within 1000 feet.

- Describe methods of analyses used (include U.S. EPA method number)

The gasoline USTs and pumps samples were extracted by EPA method 5030 (purge & trap) and analyzed by EPA method 8015m, for total petroleum hydrocarbons (TPH) as gasoline.

The other samples were extracted by 5030 and 3550 and analyzed for TPH in the low and mid-boiling point ranges.

- Describe analytical results for samples; discuss in relation to site specific cleanup level or action level, as appropriate

Results are shown on Table 1. The chain of custody form and laboratory certificates of analysis are enclosed.

No total petroleum hydrocarbons were detected in the four samples.

IV. Conclusions and Recommendations

Include probable sources of contamination, further investigation or remediation tasks, or whether no further action is required.

The USTs have been removed, eliminating the possibility of future release. The tanks have been properly disposed of and the holes have been backfilled. Field screening found indication of significant petroleum impact in soil beneath the gasoline USTs and beneath the former diesel fuel UST. A total of 393.84 tons of soil were taken to Soil Solutions for remediation.

The samples taken at the bottoms of the deepened holes were all free of TPH above quantitation limits.

No further action appears to be necessary.

V. Signature of Professional Engineer or Licensed Geologist

☐**Professional Engineer Registration #:**

☐**Licensed Geologist License #: 1087**

Andrew M Paring

NORTH CAROLINA LICENSED SEAL 1087 GEOLOGIST ANDREW M. PARING

VI. Enclosures

A. Tables

1. ANALYTICAL RESULTS with depths, analyses, and dates that samples were taken

B. Figures

1. Location Map (USGS Kernersville, NC, Topographic Quadrangle)
2. Site map with analytical results (Fig 3 of UST12 form)
3. Photos 3A) pumps and canopy before excavation
   3B) final gasoline USTs hole, looking NW

C. Appendices

Appendix A: Notification of intent to close (GW/UST-3)

Appendix B: Site Investigation Report for Permanent Closure or Change-in-Service of UST (GW/UST-2)

Appendix C: Receiving Report for USTs (Safeway Tank Disposal)

Appendix D: Certificate of Acceptance and weigh tickets for all soil removed (Soil Solutions) with loading manifests and weigh tickets

Appendix E: Complete chain-of-custody records

Appendix F: Copy of all laboratory analytical records

TABLE 1: SOIL; FIELD SCREENING & ANALYTICAL RESULTS					
SAMPLE	Depth (ft)	Date 1999	Field Screening Odor/Stain	Laboratory Analytical Results, *concentrations in ppm* 5030/8015m	TPH 3550/8015m
PN-	3	9/20	no/no	<1	-
PC-	3	9/20	no/no	<1	-
PS-	3	9/20	no/no	<1	-
1E-	16	9/21	yes/no	<1	-
2E-	16	9/21	faint/no	<1	-
3E-	16	9/21	no/no	<1	-
1W-	16	9/21	faint/no	<1	-
2W-	16	9/21	no/no	<1	-
3W-	16	9/21	no/no	<1	-
DW-	9	9/22	no/no	<1	<5
DE-	9	9/22	no/no	<1	<5
KS-	9	9/22	no/no	<1	<5
KN-	9	9/22	no/no	<1	<5

EXPLANATION

example PS-3': **PS** = pump, south **3'** = 3' below grade
example 2E-16': **2E** = UST #2, east end **16'** = 16' below grade **W** = UST West end
example KS-9': **KS** = former kerosene UST, south end **9'** = 9' below grade

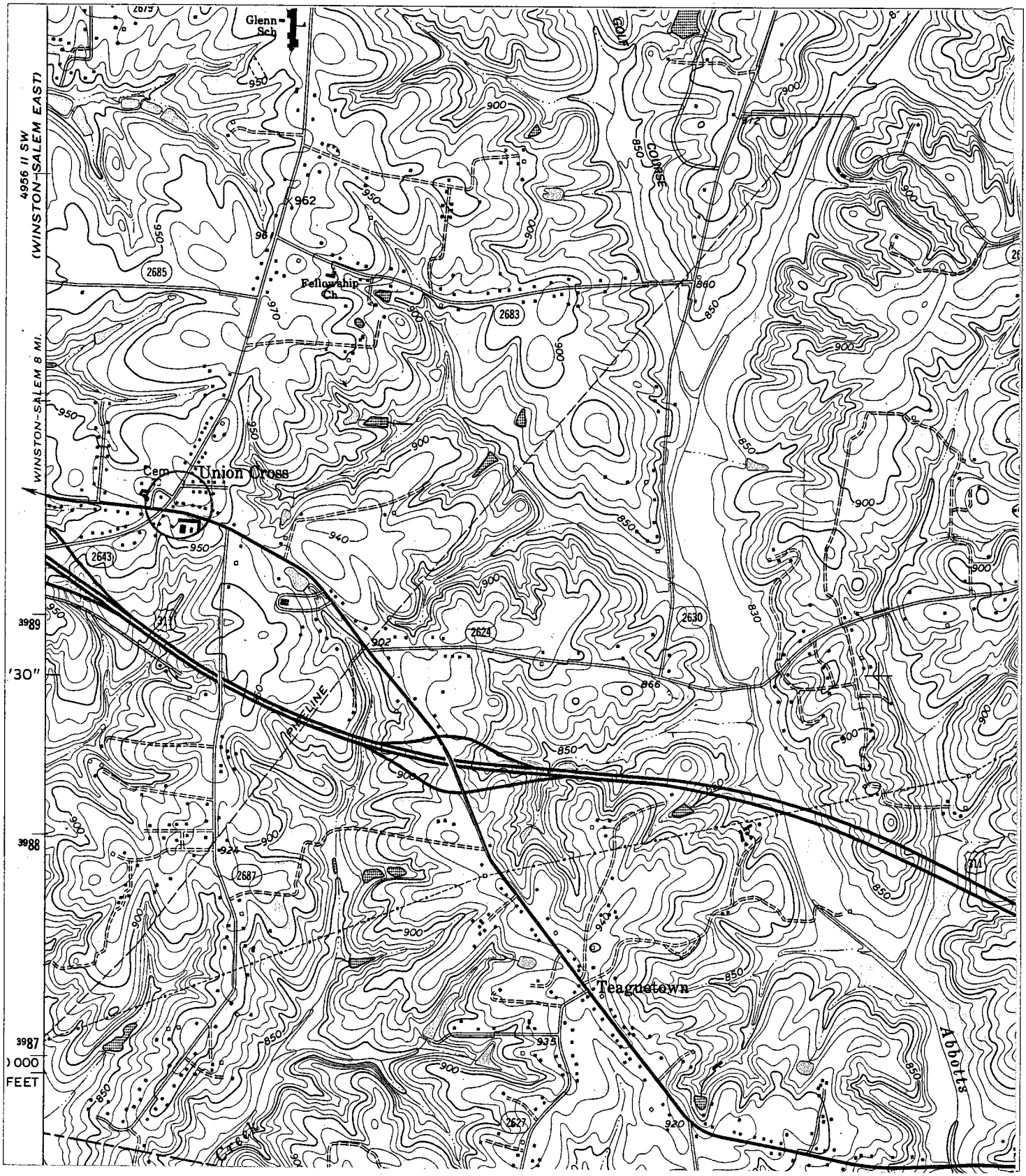


FIGURE 1: LOCATION MAP; former UNION CROSS EXXON

1799 Union Cross Road (at old US 311), Kernersville, Forsyth County

SCALE: 1"=2,000' USGS Kernersville 7.5 minute Topographic map

(North is up)

ANDREW M. RARING

SEPTEMBER, 1999

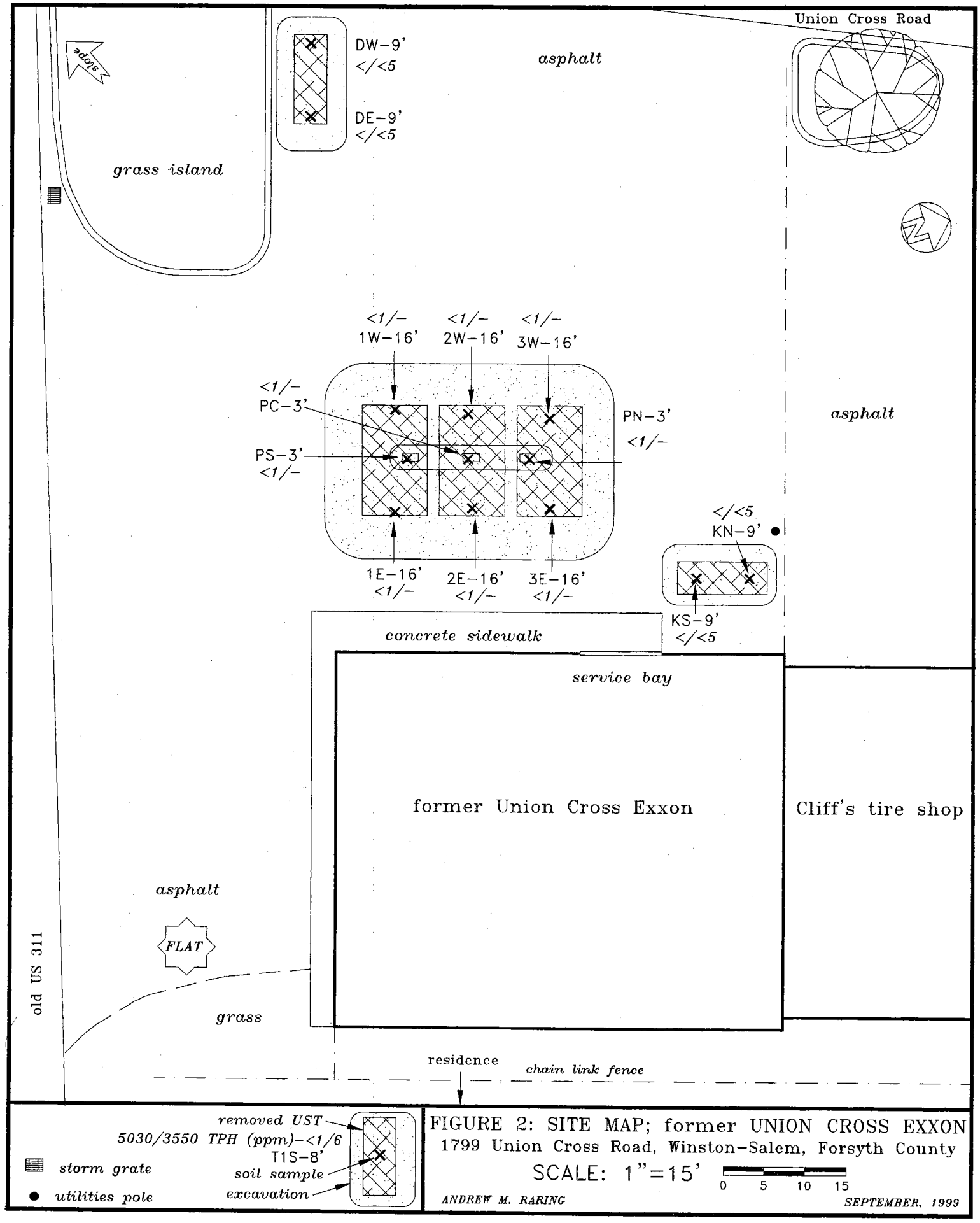


FIGURE 2: SITE MAP; former UNION CROSS EXXON
1799 Union Cross Road, Winston-Salem, Forsyth County

SCALE: 1"=15'

0 5 10 15

ANDREW M. RARING

SEPTEMBER, 1999

FIGURE3A: UNION CROSS EXXON; pumps and canopy before excavation, looking SE toward Sch.

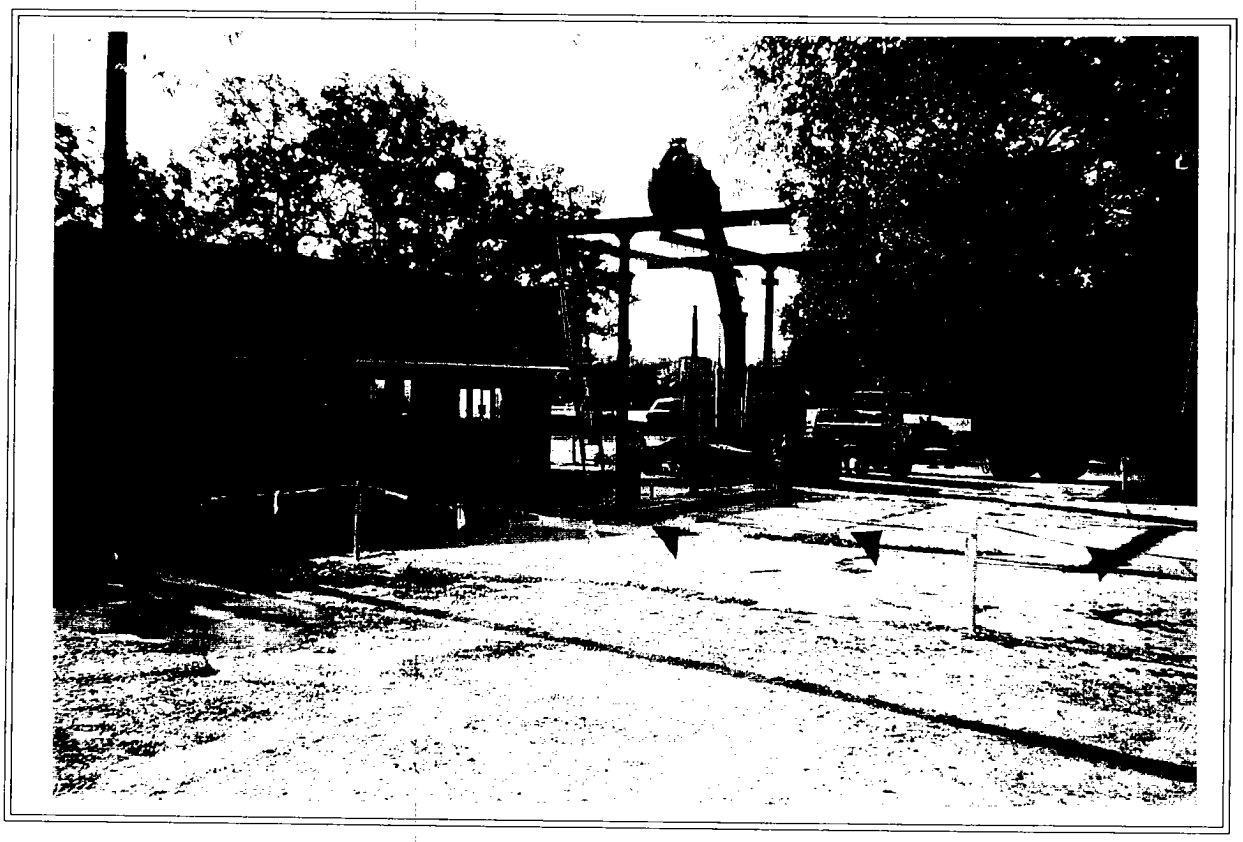
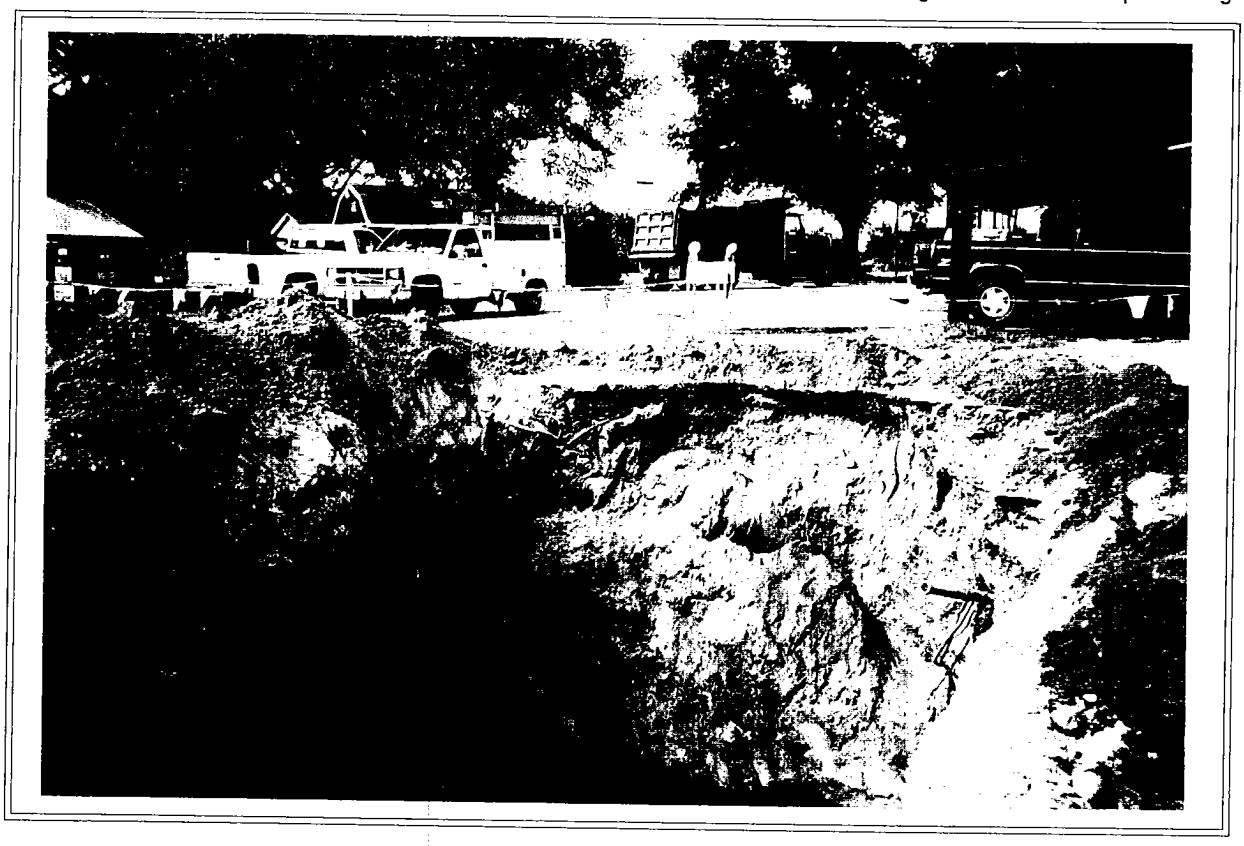


FIGURE3B: UNION CROSS EXXON; final gasoline USTs hole, looking NW, tire shop at right



Notice of Intent to Permanently Close Underground Storage Tank(s)

FOR TANKS IN **NC**

North Carolina - Department of Environment, Health, & Natural Resources
Division of Environmental Management - Groundwater Section - U.S.T.
P.O. Box 27687
Raleigh, NC 27611 (919)733-8303

State Use Only
I. D. Number _____
Date Received _____

INSTRUCTIONS
Please complete and return thirty (30) days prior to permanently closing tank(s).

I. OWNERSHIP OF TANK(S)

Tank Owner Name: BRINSON DIESEL SALES & SERV
(Corporation, Individual, Public Agency, or Other Entry)
Street Address: 1304 MARKET CENTER DRIVE
County: GUILFORD
City: HIGH POINT State: NC Zip Code: 27260
Telephone Number (Area Code): (336) 885-5073

II. LOCATION OF TANK(S)

Facility Name or Company: UNION CROSS EXXON
Street Address or State Road: 1799 UNION CROSS R
County: FORSYTH
City: KERNERSVILLE State: NC Zip Code: 27284
Telephone Number (Area Code): N/A

Contact Person

Name: JESS BRINSON Job Title: OWNER Telephone Number: (336) 885-5073

TANK REMOVAL OR CLOSURE IN PLACE

1. Contact Local Fire Marshall.
2. Plan the Closure Event.
3. Make Site Soil Assessments.
4. Remove Tanks or Close in Place in a Safe and Secure Manner Per API Pubs. "2015 Cleaning" and "1604 Removal & Disposal".
5. Provide a sketch Locating Tanks and Soil Tests.
6. Keep Records for 3 Years.

TANK(S) CLOSURE OPERATIONS TO BE PERFORMED BY:

(Contractor) Name: TEAGUE PUMP CO., INC.
Address: P.O. BOX 5512 State HIGH POINT, NC Zip Code 27262
Contact: CARLYLE TEAGUE Phone: (336) 882-2916

TANK(S) SCHEDULED FOR CLOSURE OR TO BE CLOSED

TANK NUMBER	TANK ID #	TANK CAPACITY	LAST CONTENTS	CLOSURE METHOD: Remove	CLOSURE METHOD: Close In Ground
Tank 1	1	5,000	Gasoline	XX	
Tank 2	2	5,000	Gasoline	XX	
Tank 3	3	5,000	Gasoline	XX	
Tank 4	4	1,000	Kerosene	XX	
Tank 5	5	1,000	Fuel Oil	XX	
Tank 6					
Tank 7					
Tank 8					
Tank 9					

Name and Official title of Owner's Authorized Representative
Carlyle Teague (Pres.) TEAGUE PUMP CO., INC. *Scheduled Removal Date: 9-18-99
Signature: Carlyle Teague Date Submitted: 8-24-99

*If scheduled removal date changes, Forty-eight hours verbal notice of tank removal is required.

GW/UST-3

White Copy - Owner
Yellow Copy - Regional Office
Blue Copy - Central Office
Pink Copy - Central Files

GW/UST-2 **Site Investigation Report For Permanent Closure or Change-in-Service of U.S.T.**

FOR TANKS IN **NC**

Return Completed Form To:
The appropriate DEM Regional Office according to the county of the facility's location. [SEE MAP ON REVERSE SIDE OF OWNER'S COPY (PINK) FOR REGIONAL OFFICE ADDRESS].

State Use Only
I.D. Number _____
Date Received _____

INSTRUCTIONS

Complete and return within (30) days following completion of site investigation.

I. Ownership of Tank(s)

Owner Name: BRINSON DIESEL SALES & SERVICE
Corporation, Individual, Public Agency, or Other Entity)
Street Address: 1304 MARKET CENTER DRIVE
County: GUILFORD
City: HIGH POINT State: NC Zip Code: 27260
Telephone Number: (336) 885 5073
(Area Code)

II. Location of Tank(s)

Facility Name: UNION CROSS EXXON
(or Company)
Facility ID # (if available): 0-016532
Street Address 1799 UNION CROSS ROAD
(or State Road)
County: FORSYTH City: KERNERSVILLE Zip Code: 27284
Telephone Number: ( ) N/A facility closed
(Area Code)

III. Contact Person

Name: JESS BRINSON Job Title: OWNER Tel. No.: 336-885-5073
Closure Contractor: TEAGUE PUMP COMPANY Address: CARLYLE TEAGUE Tel. No.:
Primary Consultant: ANDREW M. RARING Address: P.O. BOX 34 BETHANIA NC 27010 Tel. No.: 336-922-5219
Lab: BLUE RIDGE LABS/STEVE JOHNSON Address: P.O. BOX 2940 LENOIR, NC 28645 Tel. No.: 828-728-0149

IV. U.S.T. Information / **V. Excavation Condition**

Tank No.	Size in Gallons	Tank Dimensions	Last Contents	Water In Excavation Yes	Water In Excavation No	Free Product Yes	Free Product No	Notable Odor or Visible Soil Contamination Yes	Notable Odor or Visible Soil Contamination No
1	5,000	14'9" x 8'	Gasoline		✓		✓	✓	
2	5,000	14'3" x 8'	Gasoline		✓		✓	✓	
3	5,000	14'3" x 8'	Gasoline		✓		✓	✓	
4	1,000		Kerosene		✓		✓		✓
5	1,000		Diesel Fuel		✓		✓	✓	

VI. Additional Information Required

See reverse side of pink copy (owner's copy) for additional information required by N.C. - DEM in the written report and sketch.

NOTE: The site assessment portion of the tank closure must be conducted under the supervision of a Professional Engineer or Licensed Geologist.

VII. Check List (Check the activities completed)

PERMANENT CLOSURE (For Removing or Abandoning-in-place)

- ☑ Contact local fire marshal.
- ☑ Notify DEM Regional Office before abandonment.
- ☑ Drain & flush piping into tank.
- ☑ Remove all product and residuals from tank.
- ☑ Excavate down to tank.
- ☑ Clean and inspect tank.
- ☑ Remove drop tube, fill pipe, gauge pipe, vapor recovery tank connections, submersible pumps and other tank fixtures.
- ☑ Cap or plug all lines except the vent and fill lines.
- ☑ Purge tank of all product & flammable vapors.
- ☑ Cut one or more large holes in the tanks.
- ☑ Backfill the area.

Date Tank(s) Permanently closed: Sept 21, 1999
Date of Change-in-Service: _____

ABANDONMENT IN PLACE USTs # 4 & 5 in 1988?

- ☑ Fill tank until material overflows tank opening.
- ☑ Plug or cap all openings.
- ☑ Disconnect and cap or remove vent line.
- ☑ Solid inert material used - specify: CONCRETE

REMOVAL UST # 1, 2, 3

- ☑ Create vent hole.
- ☑ Label tank.
- ☑ Dispose of tank in approved manner.

Final tank destination: SAFEWAY TANK DISPOSAL

VIII. Certification (Read and Sign)

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

Print name and official title of owner or owner's authorized representative	Signature	Date Signed
ANDREW M RARING PRIMARY CONSULTANT	Andrew M Raring	10/22/99

Safeway Tank Disposal, Inc.

CERTIFICATE OF TANK DISPOSAL

Customer

League Pump Co.
P.O. Box 5512
High Point, NC. 27262

Date 10/7/99

Transported by: Customer

Tank Disposal Number	Size	Weight	Product	Residue Amount	Origin
2230	5,000 gal	4933#	Gas	Legal.	Union Cross Exxon
2231	5,000	4933#	Gas	8	1799 Union Cross Rd.
2232	5,000	4933#	Gas	12	Kernersville, N.C.

Total Residue 26 gal.

Tanks were disposed in accordance with API 1604, 1987 Removal and Disposal of Used Underground Petroleum Storage Tanks. Residue was disposed in accordance with U.S. EPA Regulations by licensed subcontractor. Lead free scrap steel was recycled by United Metal Recyclers 9/27/99.

Shawn W Yow

SAFEWAY TANK DISPOSAL, INC.

SOIL SOLUTIONS, INCORPORATED

1703 Vargrave Street, Winston-Salem, NC 27107
Phone: (336) 725-5844 Fax: (336) 725-6244

SOIL PROFILE

SECTION I / Generator Information

Generator Name: BRINSON DIESEL SALES & SERVICE SSI Project No.:_____

Generator Address: 1304 MARKET CENTER DRIVE HIGH POINT 27260

Site Address: UNION CROSS EXXON 1799 UNION CROSS ROAD at old US 311

Generator Contact/Title: JESS BRINSON Telephone Number: 885-5073

Project Manager/Company: Carlyle Teague Telephone Number: 882-2916

SECTION II / Source of Generation

✓ This soil waste is derived from petroleum hydrocarbon underground storage tank closure and is solely regulated under 40 CFR 280. Further, all contaminants contained in the soil are petroleum hydrocarbon derivatives currently deferred or not subject to regulation as a hazardous waste under 40 CFR 261.20. The type of contamination is GASOLINE.

_____ This soil waste is derived from a used or waste oil underground storage tank closure and is solely regulated under 40 CFR 280. Further, all contaminants contained in the soil are oil derivatives currently deferred or not subject to regulation as a hazardous waste under 40 CFR 261.20.

_____ This soil waste is generated from a petroleum hydrocarbon spill or release onto surface soils. Further, all contaminants contained in the soil are not regulated as a characteristic of listed hazardous waste under 40 CFR 261.20 or 261.30. The type of contamination _____.

_____ This soil waste is derived from a used or waste oil spill or release onto surface soils. Further, all contaminants contained in the soil are oil derivatives, and are not regulated as a characteristic or listed hazardous waste under 40 CFR 261.20 or 261.30.

SECTION III / Laboratory Testing Requirements

_____ A representative composite sample of this soil waste was analyzed for Total Petroleum Hydrocarbons utilizing EPA Test Method 3550, 5030 or 9071 as appropriate.

_____ A representative composite sample of this soil waste was analyzed for RCRA regulated heavy metals utilizing TCLP. (required for all used oil contaminated soils)

✓ OTHER: GENERATOR KNOWLEDGE

_____ NOTE: All analysis must be performed by a North Carolina certified laboratory, attach all laboratory analytical results.

SECTION IV / Generator Certification

I hereby declare that the waste presented above are accurately described, properly classified, appropriately analyzed, and are petroleum hydrocarbon contaminated soils, not regulated as a hazardous waste. I certify that I have personally examined and am familiar with the information submitted in this document and attachments.

Signature: Andrew M Raring Date: 9/20/99

Print Name & Title: ANDREW M RARING PRIMARY CONSULTANT Telephone Number: 922 5219

SOIL SOLUTIONS

CERTIFICATE OF ACCEPTANCE

Soil Solutions, Inc. does hereby certify that 393.84 tons of non-hazardous contaminated material were received on 09/21/1999 from:

Generator: Brinson Diesel Sales & Service

Originating at: Union Cross Exxon 1799 Union Cross Road
Winston-Salem, NC

SSI Waste ID#: SF099929

This non-hazardous material has been accepted by Soil Solutions, Inc. and will be remediated in their Soil Treatment Facility in Winston-Salem, North Carolina. Soil Solutions, Inc. guarantees the contaminated material will be treated to below regulatory standards established by the North Carolina Department of Environment and Natural Resources for clean soil.

Signature

Thomas W. Hammett
Senior Vice President
Soil Solutions, Inc.

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

Blue Ridge Labs, Inc.

P. O. Box 2940
Lenoir, N.C. 28645
Telephone (828) 728-0149 Fax (828) 728-0131

UST

CHAIN OF CUSTODY RECORD

NPDS Reporting ___ Groundwater ✓ Sanitary Landfill ___ Hazardous Waste ___ Industrial or QC ___ Non State Reporting ___

REPORT TO: ANDREW
336-322-5219

BILL TO: ANDREW RARING
P O BOX 34
BETHANIA, NC 27010

PROJECT NAME or NUMBER: UNION CROSS
PO #: EXXON

Sample ID	FIELD Sample Type	Collection Date	Time & Tem HR:MM °C	Res Chlor Field Check Yes	Res Chlor Field Check No	Field Dechlor Yes	Field Dechlor No	LAB Preservatives Lab Check pH	Res Cl P or A	Temp. °C	Sampler Initials	Requested Analysis
PN-3'	Grab Soil	9/20			/					2.1	AMR	5030/8015m TPH
PC-3'					/						AMR	
PS-3'					/						AMR	
1E-16'		9/21			/						AMR	
2E-16'					/						AMR	
3E-16'					/						AMR	
1W-16'					/						AMR	

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
Andrew Raring	9/23/99	14:25		9/23/99	14:25

REV. 5/5/98

1175

Blue Ridge Labs, Inc.

P. O. Box 2940
Lenoir, N.C. 28645
Telephone (828) 728-0149 Fax (828) 728-0131

CHAIN OF CUSTODY RECORD

UST

NPDS Reporting ___ Groundwater ✓ Sanitary Landfill ___ Hazardous Waste ___ Industrial or QC ___ Non State Reporting ___

REPORT TO: ANDREW

BILL TO: ANDREW RARING
P. O. BOX 34
BETHANIA NC 27010

PROJECT NAME or NUMBER: UNION CROSS EXXON

PO #:

Sample ID	FIELD Sample Type	Collection Date	Collection Time & Tem HR:MM °C	Res Chlor Field Check Yes	Res Chlor Field Check No	Field Dechlor Yes	Field Dechlor No	LAB Preservatives pH	LAB Preservatives Res Cl P or A	LAB Check Temp. °C	Sampler Initials	Requested Analysis
2W-16'	Grab Soil	9/21/99	2:35		✓		✓			2.1	AMR	5030/8015m TPH
3W-16'		9/21	2:40		✓		✓				AMR	↓
DW-9'		9/22	3:00		✓		✓				AMR	5030 & 3550 TPH
DE-9'			3:30		✓		✓				AMR	↓
KS-9'			4:10		✓		✓				AMR	
KN-9'			4:20		✓		✓				AMR	↓

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
Andrew Raring	9/23/99	14:25		9/23/99	14:28

REV. 5/5/98

NCDENR

JAMES B. HUNT JR.
GOVERNOR

WAYNE MCDEVITT
SECRETARY

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES
WINSTON-SALEM REGIONAL OFFICE

DIVISION OF WASTE MANAGEMENT
UST SECTION

December 17, 1999

Jess Brinson
Brinson Diesel Sales
1304 W. Market Center Drive
High Point, NC 27260

RE: Notice of No Further Action 15A NCAC 2L .0115(h)
RISK-BASED ASSESSMENT AND CORRECTIVE ACTION FOR PETROLEUM UNDERGROUND STORAGE TANKS

Union Cross Exxon
1799 Union Cross Road, Kernersville
Forsyth County, N.C.
Incident No.: PENDING
UST Closure Report

Dear Mr. Brinson:

On October 25, 1999, the Division of Waste Management (DWM) Winston-Salem regional office received a UST Closure Report for the above-referenced site. A review of the report shows that soil contamination does not exceed the residential or soil-to-groundwater maximum soil contaminant concentrations established in 15A NCAC 2L .0115(m), whichever are lower. Based on information provided to date, the DWM classifies the risk posed by the discharge or release as low risk and determines that no further action is required for this incident. This determination shall apply unless the DWM later determines that the discharge or release poses an unacceptable risk or a potentially unacceptable risk to human health or the environment.

Pursuant to 15A NCAC 2L .0115(e), you have a continuing obligation to notify the DWM of any changes that you know of or should know of, that might affect the level of risk assigned to the discharge or release.

Should you have any questions concerning this notice, please contact **Sabra Elder** at 336-771-4600.

Sincerely,

Cindy H. Rintoul
UST Regional Supervisor

cc: Fay Sweat - Central Office ✓
WSRO Files
Andrew Raring – PO Box 34, Bethania, NC 27010

585 WAUGHTOWN STREET, WINSTON-SALEM, NORTH CAROLINA 27107
PHONE 336-771-4600 FAX 336-771-4632

ATTACHMENT B

Pyramid Project # 2010109

GEOPHYSICAL INVESTIGATION REPORT

EM61 & GPR SURVEYS

R. WAYNE & GLENDA ELLER PROPERTY
PARCEL 45
Forsyth County, North Carolina

June 7, 2010

Report prepared for: **Michael W. Branson, PG**
AECOM Environment
701 Corporate Center Drive, Suite 475
Raleigh, North Carolina 27607

Prepared by: _____
Mika Trifunovic

Reviewed by: _____
Douglas Canavello, PG

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

AECOM Environment
GEOPHYSICAL INVESTIGATION REPORT
R. WAYNE & GLENDA ELLER PROPERTY
PARCEL 45
Forsyth County, North Carolina

TABLE OF CONTENTS PAGE

FIGURES

1.0 INTRODUCTION

Pyramid Environmental conducted geophysical investigations for AECOM Environment across the accessible portions of the R. Wayne and Glenda Eller property (Parcel 45) located at the intersection of Union Cross Road and High Point Road in Forsyth County, North Carolina. The property contains the Old 311Curb Market (Marathon station) and Joes Tire & Service garage. Asphalt and concrete pavement covers much of the western and southern portions of the site, whereas grass surfaces cover the northern and eastern edges of the property. The survey area was conducted across the entire site including the pump island area and the active (known) UST pad which is identified by the series of visible UST valve covers.

The geophysical investigation was conducted on May 12 and 19, 2010 to determine if unknown, metallic underground storage tanks (USTs) were present beneath the property. AECOM Environment representative Mr. Michael Branson, PG identified the geophysical survey area to Pyramid Environmental personnel prior to the investigation. The geophysical survey area has a maximum length and width of 205 feet and 190 feet respectively. Photographs of the geophysical equipment used in this investigation and the front portion of the R. Wayne and Glenda Eller property 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 May 12, 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 northerly-southerly, or easterly-westerly, 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 May 19, 2010 across selected EM61 differential anomalies, areas containing steel reinforced concrete and across the open area between the building and metal fence line 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 45 were emailed to Mr. Branson during the week of May 17, 2010.

3.0 DISCUSSION OF RESULTS

The linear EM61 bottom coil anomalies intersecting grid lines X=50 Y=100 and X=120 Y=16 are probably in response to buried utility lines that run along the eastern edge of Union Cross Road and the northern edge of High Point Road, respectively. The linear bottom coil anomalies intersecting grid coordinates X=40 Y=23, X=55 Y=30, X=85 Y=35, and X=120 Y=87 are probably in response to buried utility lines or conduits.

GPR data suggest the high amplitude bottom coil anomalies (negative differential anomalies) centered near grid coordinates X=90 Y=70 are in response to the two pump islands and the metallic UST covers which identify the location of the three active, fiberglass USTs. GPR data acquired across the anomalies centered near grid coordinates X=136 Y=75, X=165 Y=40 and X=235 Y=180 suggest the anomalies are in response to the building, steel reinforced concrete and/or known surface objects. The remaining EM61 anomalies are probably in response to known surface objects or equipment.

GPR data suggest the eastern edge of the property located between the building and metal fence line does not contain buried metallic USTs. Excluding the known and active USTs centered near grid coordinates X=80 Y=55, the geophysical investigation suggest the remaining portion of the survey area at Parcel 45 does not contain buried metallic USTs.

4.0 SUMMARY & CONCLUSIONS

Our evaluation of the EM61 and GPR data collected across the R. Wayne and Glenda Eller property (Parcel 45) located in Forsyth County, 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 lines X=50 Y=100 and X=120 Y=16 are probably in response buried utility lines that run along the eastern edge of Union Cross Road and the northern edge of High Point Road, respectively.

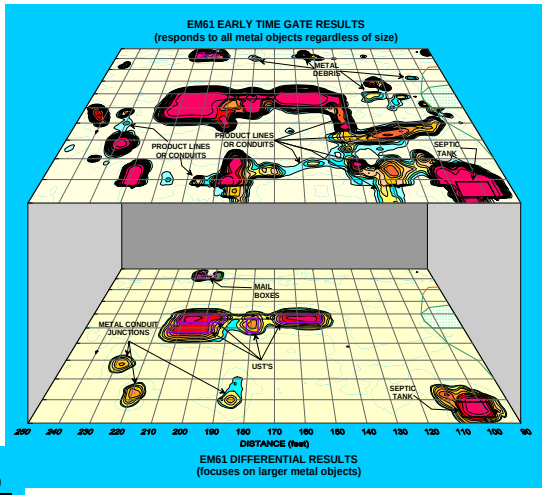
- The linear bottom coil anomalies intersecting grid coordinates X=40 Y=23, X=55 Y=30, X=85 Y=35, and X=120 Y=87 are probably in response to buried utility lines or conduits.

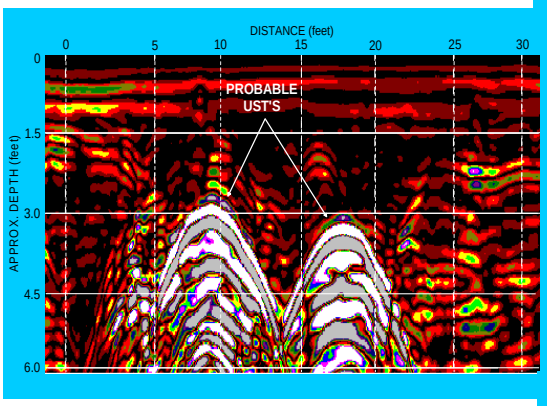
- GPR data suggest the high amplitude bottom coil anomalies (negative differential anomalies) centered near grid coordinates X=90 Y=70 are in response to the two pump islands and the metallic UST covers which identify the location of the three active, fiberglass USTs.

- Excluding the known and active USTs centered near grid coordinates X=80 Y=55, the geophysical investigation suggest the remaining portion of the survey area at Parcel 45 does not contain buried metallic USTs.

5.0 LIMITATIONS

EM61 and GPR surveys have been performed and this report prepared for AECOM Environment 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 site does not contain unknown, buried metallic USTs, but that none were detected.

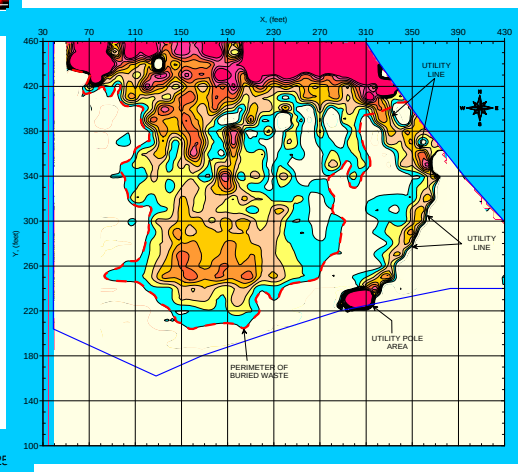


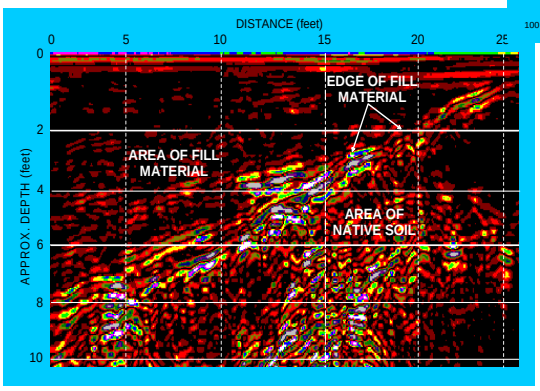


FIGURES

(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 accessible portions of Parcel 45 on May 12, 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 45 on May 19, 2010.

The photograph shows the front (western portion) of the R. Wayne and Glenda Eller property (Parcel 45) located at the intersection of Union Cross Road and High Point Road in Forsyth County, North Carolina. The photograph is viewed in an easterly direction.

PYRAMID
ENVIRONMENTAL & ENGINEERING, P.C.

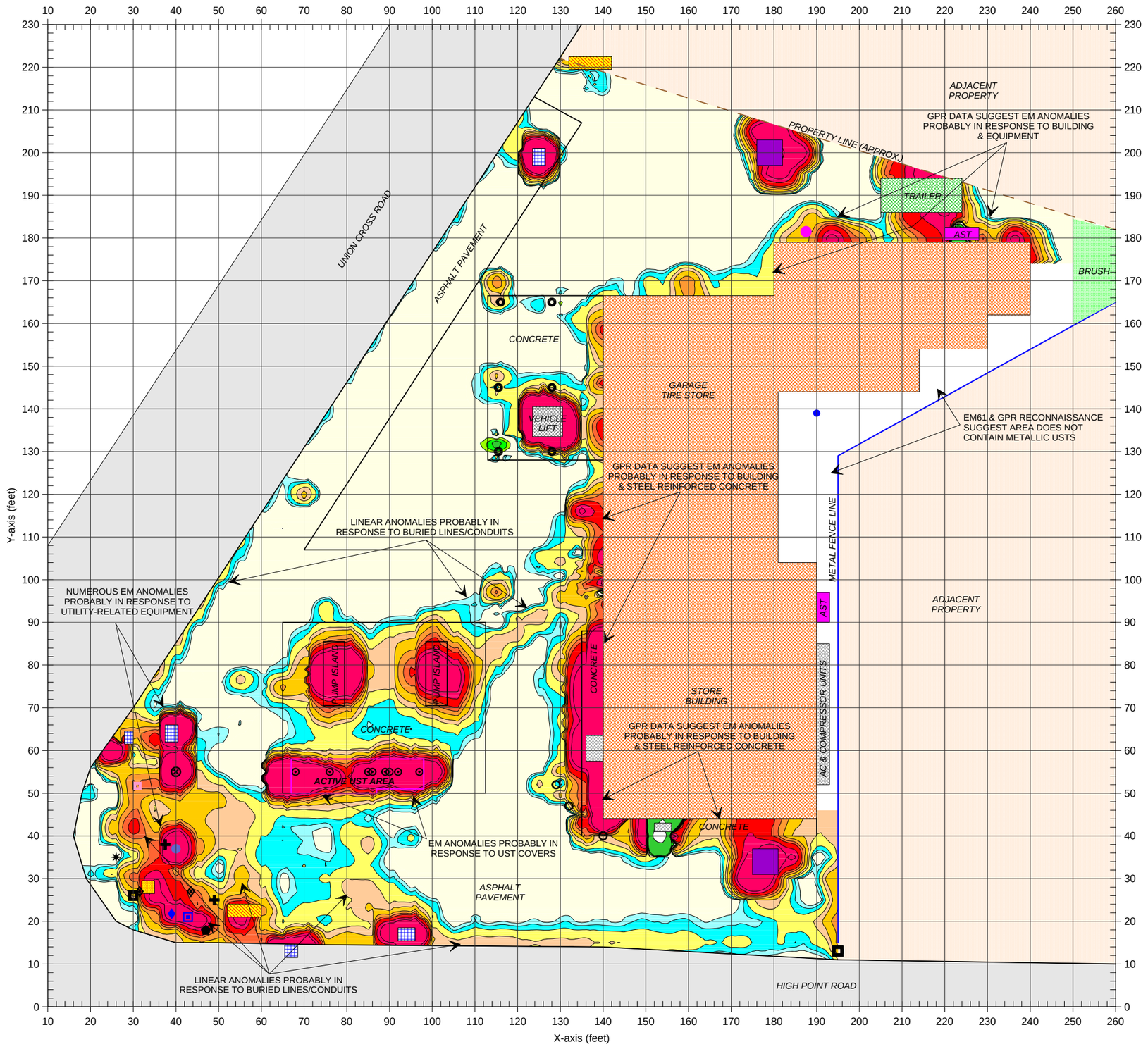
CLIENT	AECOM ENVIRONMENT	DATE	05/27/10	DRWN	MJD
SITE	R. WAYNE & GLENDA ELLER PROPERTY (PARCEL 45)	LAY		CHKD	
CITY	FORSYTH COUNTY	STATE	NORTH CAROLINA	DWG	
TITLE	GEOPHYSICAL RESULTS	JNO	2010-109	FIGURE	

GEOPHYSICAL EQUIPMENT & SITE PHOTOGRAPHS

FIGURE 1

EM61 METAL DETECTION (BOTTOM COIL RESULTS)

FIGURE 2



N
W E
S
APPROXIMATE NORTH

LEGEND

- SURVEY AREA: EM61 DATA ACQUIRED ALONG X-AXIS OR Y-AXIS TRENDING LINES SPACED 5 FEET APART
- BUILDING
- AIR VAC MACHINE
- BOLLARD
- BUSINESS SIGN
- DUMPSTER
- ELECTRICAL BOX OR AIR PUMP
- FIBER OPTICS MARKER
- FIRE HYDRANT
- GUY WIRE
- MAILBOX
- METAL DRUM
- METAL UTILITY/STORM SEWER COVER
- MISC. EQUIPMENT
- ROAD SIGN
- STORM SEWER GRATE
- SUPPORT POLE
- UTILITY POLE
- UTILITY LINE BOX
- UST VALVE COVER
- VEHICLE
- WATER METER BOX
- WATER SUPPLY WELL
- APPROX. FOOTPRINT OF USTS

EM61 BOTTOM COIL RESPONSE (MILLIVOLTS)

-5000 -400 -200 -100 -90 45 60 75 100 150 200 300 400 500 750 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 May 12, 2010 using a Geonics EM61 instrument. Ground penetrating radar (GPR) data were acquired on May 19, 2010 using a Geophysical Survey Systems SIR 2000 instrument with a 400 MHz antenna.

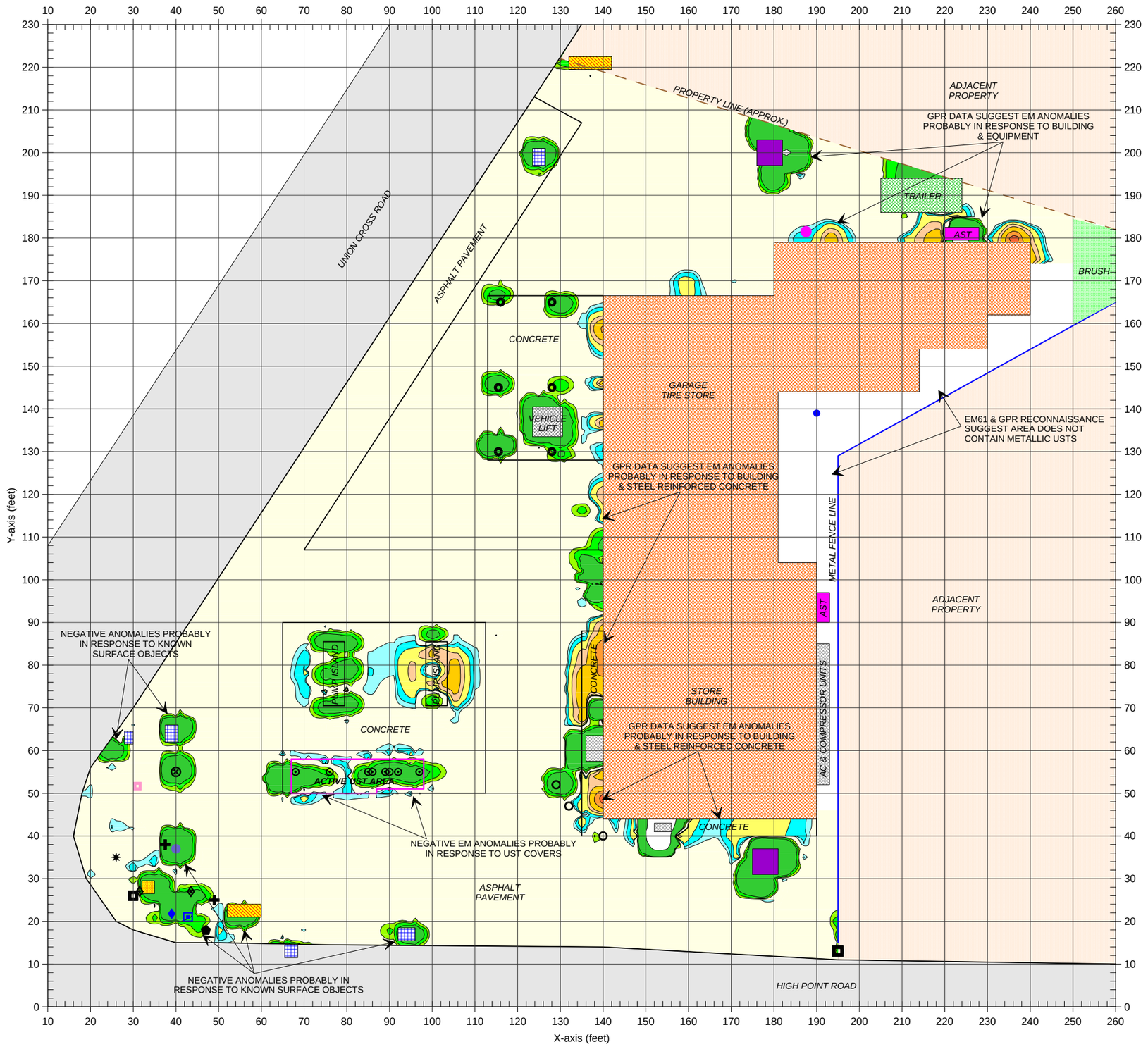
The geophysical investigation suggests that the surveyed portions of Parcel 45 contain three fiberglass USTs but did not detect unknown metallic USTs.

GRAPHIC SCALE IN FEET

DRWN	CHKD		FIGURE
MJD			
DATE	LAY	DWG	J-NO.
05/27/10			2010-109

CLIENT: AECOM ENVIRONMENT
SITE: R. WAYNE & GLENDA ELLER PROPERTY (PARCEL 45)
CITY: FORSYTH COUNTY
STATE: NORTH CAROLINA
TITLE: GEOPHYSICAL RESULTS

PYRAMID
ENVIRONMENTAL & ENGINEERING, P.C.



N
W E
S
APPROXIMATE NORTH

LEGEND

- SURVEY AREA: EM61 DATA ACQUIRED ALONG X-AXIS OR Y-AXIS TRENDING LINES SPACED 5 FEET APART
- BUILDING
- AIR VAC MACHINE
- BOLLARD
- BUSINESS SIGN
- DUMPSTER
- ELECTRICAL BOX OR AIR PUMP
- FIBER OPTICS MARKER
- FIRE HYDRANT
- GUY WIRE
- MAILBOX
- METAL DRUM
- METAL UTILITY/STORM SEWER COVER
- MISC. EQUIPMENT
- ROAD SIGN
- STORM SEWER GRATE
- SUPPORT POLE
- UTILITY POLE
- UTILITY LINE BOX
- UST VALVE COVER
- VEHICLE
- WATER METER BOX
- WATER SUPPLY WELL
- APPROX. FOOTPRINT OF USTS

EM61 DIFFERENTIAL RESPONSE (MILLIVOLTS)

-5000 -400 -200 -100 -90 -45 -60 -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 miscellaneous, buried, metal debris. The EM61 data were collected on May 12, 2010 using a Geonics EM61 instrument. Ground penetrating radar (GPR) data were acquired on May 19, 2010 using a Geophysical Survey Systems SIR 2000 instrument with a 400 MHz antenna.

The geophysical investigation suggests that the surveyed portions of Parcel 45 contain three fiberglass USTs but did not detect unknown metallic USTs.

EM61 METAL DETECTION (DIFFERENTIAL RESULTS)

FIGURE 3

GRAPHIC SCALE IN FEET

DRWN	CHKD		FIGURE
MJD			
DATE	LAY	DWG	J-NO.
05/27/10			2010-109

CLIENT: AECOM ENVIRONMENT
SITE: R. WAYNE & GLENDA ELLER PROPERTY (PARCEL 45)
CITY: FORSYTH COUNTY
STATE: NORTH CAROLINA
TITLE: GEOPHYSICAL RESULTS

PYRAMID ENVIRONMENTAL & ENGINEERING, P.C.

ATTACHMENT C

TEST BORING REPORT

PROJECT OLD 311 CURB MARKET, INC., PROPERTY (PARCEL 45)
CLIENT NCDOT (WBS 40278.1.1)
PROJECT NUMBER 60155373 (U-4909)
CONTRACTOR AED
EQUIPMENT GEOPROBE

BORING NUMBER OM-1
PAGE 1
ELEVATION
DATE 5/25/2010
DRILLER KELLY
PREPARED BY BRANSON

DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			0.01		3" ASPHALT/GRAVEL, MEDIUM BROWN SILT/SAND, DRY, NO ODOR.
			0.01		MEDIUM TO REDDISH BROWN SILT/CLAY, STIFF, DRY, NO ODOR
			0.01		AS ABOVE, DRY, NO ODOR.
5.0					
			0.03		AS ABOVE, DRY, NO ODOR.
			0.24		MOTTLED MEDIUM BROWN, REDDISH BROWN, AND TAN SILT/SAND, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
10.0					
			0.05		AS ABOVE, DRY, NO ODOR.
			0.10		AS ABOVE, DRY, NO ODOR.
			0.02		AS ABOVE, DRY, NO ODOR.
15.0					
					BORING TERMINATED AT 15 FEET. NO GROUNDWATER ENCOUNTERED.
20.0					

AECOM

TEST BORING REPORT

PROJECT OLD 311 CURB MARKET, INC., PROPERTY (PARCEL 45)
CLIENT NCDOT (WBS 40278.1.1)
PROJECT NUMBER 60155373 (U-4909)
CONTRACTOR AED
EQUIPMENT GEOPROBE

BORING NUMBER OM-2
PAGE 1
ELEVATION
DATE 5/25/2010
DRILLER KELLY
PREPARED BY BRANSON

DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			6.09		3" ASPHALT/GRAVEL, MEDIUM TO OLIVE BROWN PLASTIC CLAY (FILL?), DRY, SLIGHT ODOR.
			27		MEDIUM TO REDDISH BROWN SILT/CLAY, STIFF, DRY, SLIGHT ODOR
			66		AS ABOVE, DRY, NO ODOR.
5.0					
			26		AS ABOVE, DRY, NO ODOR.
			27		MOTTLED MEDIUM BROWN, REDDISH BROWN, AND TAN SILT/SAND, DRY, NO ODOR.
10.0			9.73		MEDIUM TO LIGHT BROWN SAND, DRY, NO ODOR.
			45		AS ABOVE, DRY, NO ODOR.
			67		AS ABOVE, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
15.0					BORING TERMINATED AT 15 FEET. NO GROUNDWATER ENCOUNTERED.
20.0					

AECOM

TEST BORING REPORT

PROJECT OLD 311 CURB MARKET, INC., PROPERTY (PARCEL 45)
CLIENT NCDOT (WBS 40278.1.1)
PROJECT NUMBER 60155373 (U-4909)
CONTRACTOR AED
EQUIPMENT GEOPROBE

BORING NUMBER OM-3
PAGE 1
ELEVATION
DATE 5/25/2010
DRILLER KELLY
PREPARED BY BRANSON

DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			0.10		3" ASPHALT/GRAVEL, MULTILAYERED FILL, DRY, NO ODOR.
			0.15		AS ABOVE TO 3 FEET. BECOMES MEDIUM TO REDDISH BROWN SILT/CLAY, STIFF, DRY, NO ODOR.
			0.05		AS ABOVE, DRY, NO ODOR.
5.0					
			0.05		AS ABOVE, DRY, NO ODOR.
			0.21		AS ABOVE, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
10.0					
			0.05		AS ABOVE, DRY, NO ODOR.
			0.15		MEDUIM TO LIGHT BROWN SAND, DRY, NO ODOR.
			0.05		AS ABOVE, DRY, NO ODOR.
15.0					
					BORING TERMINATED AT 15 FEET. NO GROUNDWATER ENCOUNTERED.
20.0					

AECOM

TEST BORING REPORT

PROJECT OLD 311 CURB MARKET, INC., PROPERTY (PARCEL 45)
CLIENT NCDOT (WBS 40278.1.1)
PROJECT NUMBER 60155373 (U-4909)
CONTRACTOR AED
EQUIPMENT GEOPROBE

BORING NUMBER OM-4
PAGE 1
ELEVATION
DATE 5/25/2010
DRILLER KELLY
PREPARED BY BRANSON

DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
					3" ASPHALT/GRAVEL, POOR RECOVRY THROUGHOUT. MEDIUM BROWN SAND (TANK BACKFILL?), DRY, NO ODOR.
			0.10		
			0.15		AS ABOVE, DRY, NO ODOR.
5.0					
			0.59		AS ABOVE, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
10.0					
			0.47		AS ABOVE, DRY, NO ODOR.
15.0					BORING TERMINATED AT 15 FEET. NO GROUNDWATER ENCOUNTERED.
20.0					

AECOM

TEST BORING REPORT

PROJECT OLD 311 CURB MARKET, INC., PROPERTY (PARCEL 45)
CLIENT NCDOT (WBS 40278.1.1)
PROJECT NUMBER 60155373 (U-4909)
CONTRACTOR AED
EQUIPMENT GEOPROBE

BORING NUMBER OM-5
PAGE 1
ELEVATION
DATE 5/25/2010
DRILLER KELLY
PREPARED BY BRANSON

DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			0.21		3" ASPHALT/GRAVEL, MEDIUM BROWN SILT/SAND, DRY, NO ODOR.
			0.42		MEDIUM TO REDDISH BROWN SILT/CLAY, STIFF, DRY, NO ODOR
			0.14		AS ABOVE, DRY, NO ODOR.
5.0					
			0.10		AS ABOVE, DRY, NO ODOR.
			0.48		MEDIUM TO LIGHT BROWN SAND, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
10.0			0.12		AS ABOVE, DRY, NO ODOR.
			0.36		AS ABOVE, DRY, NO ODOR.
			0.23		AS ABOVE, DRY, NO ODOR.
15.0		0.23			BORING TERMINATED AT 15 FEET. NO GROUNDWATER ENCOUNTERED.
20.0					

AECOM

TEST BORING REPORT

PROJECT OLD 311 CURB MARKET, INC., PROPERTY (PARCEL 45)
CLIENT NCDOT (WBS 40278.1.1)
PROJECT NUMBER 60155373 (U-4909)
CONTRACTOR AED
EQUIPMENT GEOPROBE

BORING NUMBER OM-6
PAGE 1
ELEVATION
DATE 5/25/2010
DRILLER KELLY
PREPARED BY BRANSON

DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			0.01		3" ASPHALT/GRAVEL, MEDIUM TO REDDISH BROWN, STIFF, SILT/CLAY, DRY, NO ODOR.
			0.14		AS ABOVE, DRY, NO ODOR.
			0.06		AS ABOVE, DRY, NO ODOR.
5.0					
			0.02		AS ABOVE, DRY, NO ODOR.
			0.16		AS ABOVE, DRY, NO ODOR.
10.0			0.21		MOTTLED MEDIUM BROWN AND LIGHT BROWN SILT/SAND, DRY, NO ODOR.
			0.31		AS ABOVE, DRY, NO ODOR.
			0.50		AS ABOVE, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
15.0					BORING TERMINATED AT 15 FEET. NO GROUNDWATER ENCOUNTERED.
20.0					

AECOM

TEST BORING REPORT

PROJECT OLD 311 CURB MARKET, INC., PROPERTY (PARCEL 45)
CLIENT NCDOT (WBS 40278.1.1)
PROJECT NUMBER 60155373 (U-4909)
CONTRACTOR AED
EQUIPMENT GEOPROBE

BORING NUMBER OM-7
PAGE 1
ELEVATION
DATE 5/25/2010
DRILLER KELLY
PREPARED BY BRANSON

DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			21		2" TOPSOIL, MEDIUM TO REDDISH BROWN STIFF SILT/CLAY, DRY, SLIGHT ODOR.
			25		AS ABOVE, DRY, SLIGHT ODOR.
			23		AS ABOVE, DRY, SLIGHT ODOR.
5.0					
			17		AS ABOVE, DRY, SLIGHT ODOR.
			33		MEDIUM TO LIGHT BROWN SAND, DRY, SLIGHT ODOR.
10.0			7.79		AS ABOVE, DRY, NO ODOR.
			17		AS ABOVE, DRY, NO ODOR.
			195		AS ABOVE, DRY, MODERATE ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
15.0					BORING TERMINATED AT 15 FEET. NO GROUNDWATER ENCOUNTERED.
20.0					

AECOM

TEST BORING REPORT

PROJECT OLD 311 CURB MARKET, INC., PROPERTY (PARCEL 45)
CLIENT NCDOT (WBS 40278.1.1)
PROJECT NUMBER 60155373 (U-4909)
CONTRACTOR AED
EQUIPMENT GEOPROBE

BORING NUMBER OM-8
PAGE 1
ELEVATION
DATE 5/25/2010
DRILLER KELLY
PREPARED BY BRANSON

DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			0.41		3" ASPHALT/GRAVEL, MULTILAYERED FILL, DRY, NO ODOR.
			0.44		MEDIUM TO REDDISH BROWN SILT/CLAY, STIFF, DRY, NO ODOR
			0.34		AS ABOVE, DRY, NO ODOR.
5.0			5.75		AS ABOVE, DRY, NO ODOR.
			50		MEDIUM TO LIGHT BROWN SAND, DRY, MODERATE ODOR.
10.0			47		AS ABOVE, DRY, MODERATE ODOR.
			94		AS ABOVE, DRY, MODERATE ODOR.
15.0			237		AS ABOVE, DRY, MODERATE ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
					BORING TERMINATED AT 15 FEET. NO GROUNDWATER ENCOUNTERED.
20.0					

AECOM

TEST BORING REPORT

PROJECT OLD 311 CURB MARKET, INC., PROPERTY (PARCEL 45)
CLIENT NCDOT (WBS 40278.1.1)
PROJECT NUMBER 60155373 (U-4909)
CONTRACTOR AED
EQUIPMENT GEOPROBE

BORING NUMBER OM-9
PAGE 1
ELEVATION
DATE 5/25/2010
DRILLER KELLY
PREPARED BY BRANSON

DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			0.22		3" ASPHALT/GRAVEL, POOR RECOVRY THROUGHOUT. MEDIUM BROWN SILT/SAND (TANK BACKFILL?), DRY, NO ODOR.
5.0					
			0.39		AS ABOVE, DRY, NO ODOR.
10.0			0.09		MEDIUM TO LIGHT BROWN SAND, DRY, NO ODOR.
			0.31		AS ABOVE, DRY, NO ODOR.
			0.47		AS ABOVE, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
15.0					BORING TERMINATED AT 15 FEET. NO GROUNDWATER ENCOUNTERED.
20.0					

AECOM

TEST BORING REPORT

PROJECT OLD 311 CURB MARKET, INC., PROPERTY (PARCEL 45)
CLIENT NCDOT (WBS 40278.1.1)
PROJECT NUMBER 60155373 (U-4909)
CONTRACTOR AED
EQUIPMENT GEOPROBE

BORING NUMBER OM-10
PAGE 1
ELEVATION
DATE 5/25/2010
DRILLER KELLY
PREPARED BY BRANSON

DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			0.41		MEDIUM TO LIGHT BROWN SILT/CLAY, DRY, NO ODOR.
			0.47		MEDIUM TO REDDISH BROWN SILT/CLAY, STIFF, DRY, NO ODOR
5.0			0.78		AS ABOVE, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
			0.42		AS ABOVE, DRY, NO ODOR.
			0.54		MEDIUM TO LIGHT BROWN SAND, DRY, NO ODOR.
10.0			0.41		AS ABOVE, DRY, NO ODOR.
			0.50		AS ABOVE, DRY, NO ODOR.
			0.55		AS ABOVE, DRY, NO ODOR.
15.0					BORING TERMINATED AT 15 FEET. NO GROUNDWATER ENCOUNTERED.
20.0					

AECOM

TEST BORING REPORT

PROJECT OLD 311 CURB MARKET, INC., PROPERTY (PARCEL 45)
CLIENT NCDOT (WBS 40278.1.1)
PROJECT NUMBER 60155373 (U-4909)
CONTRACTOR AED
EQUIPMENT GEOPROBE

BORING NUMBER OM-11
PAGE 1
ELEVATION
DATE 5/25/2010
DRILLER KELLY
PREPARED BY BRANSON

DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			0.43		2" TOPSOIL, MEDIUM TO REDDISH BROWN STIFF SILT/CLAY, DRY, NO ODOR.
			0.11		AS ABOVE, DRY, NO ODOR.
			0.61		AS ABOVE, DRY, NO ODOR.
5.0					
			0.28		AS ABOVE, DRY, NO ODOR.
			1.03		MEDIUM TO LIGHT BROWN SAND, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
10.0			0.31		AS ABOVE, DRY, NO ODOR.
			0.63		AS ABOVE, DRY, NO ODOR.
			0.51		AS ABOVE, DRY, NO ODOR.
15.0					BORING TERMINATED AT 15 FEET. NO GROUNDWATER ENCOUNTERED.
20.0					

AECOM

ATTACHMENT D

PHOTO 1 - BORING IN PROPOSED R/W LOOKING EAST

PHOTO 2 - BORINGS IN PROPOSED R/W LOOKING NORTH

PHOTO 3 - BORING WITHIN PROPOSED R/W LOOKING NORTH

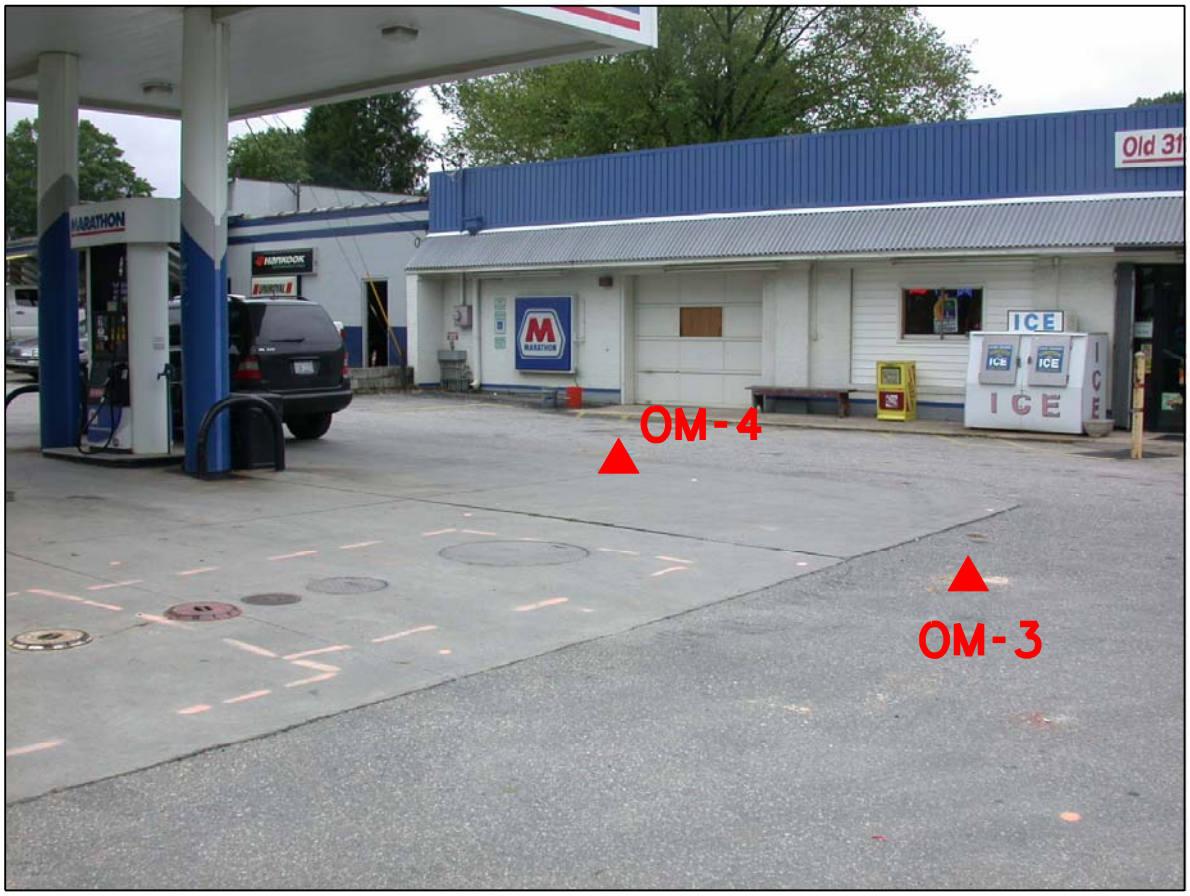


PHOTO 4 - BORINGS WITHIN PROPOSED R/W LOOKING NORTH

PHOTO 5 - BORING WITHIN PROPOSED R/W LOOKING SOUTH

PHOTO 6 - BORING WITHIN PROPOSED R/W LOOKING SOUTH

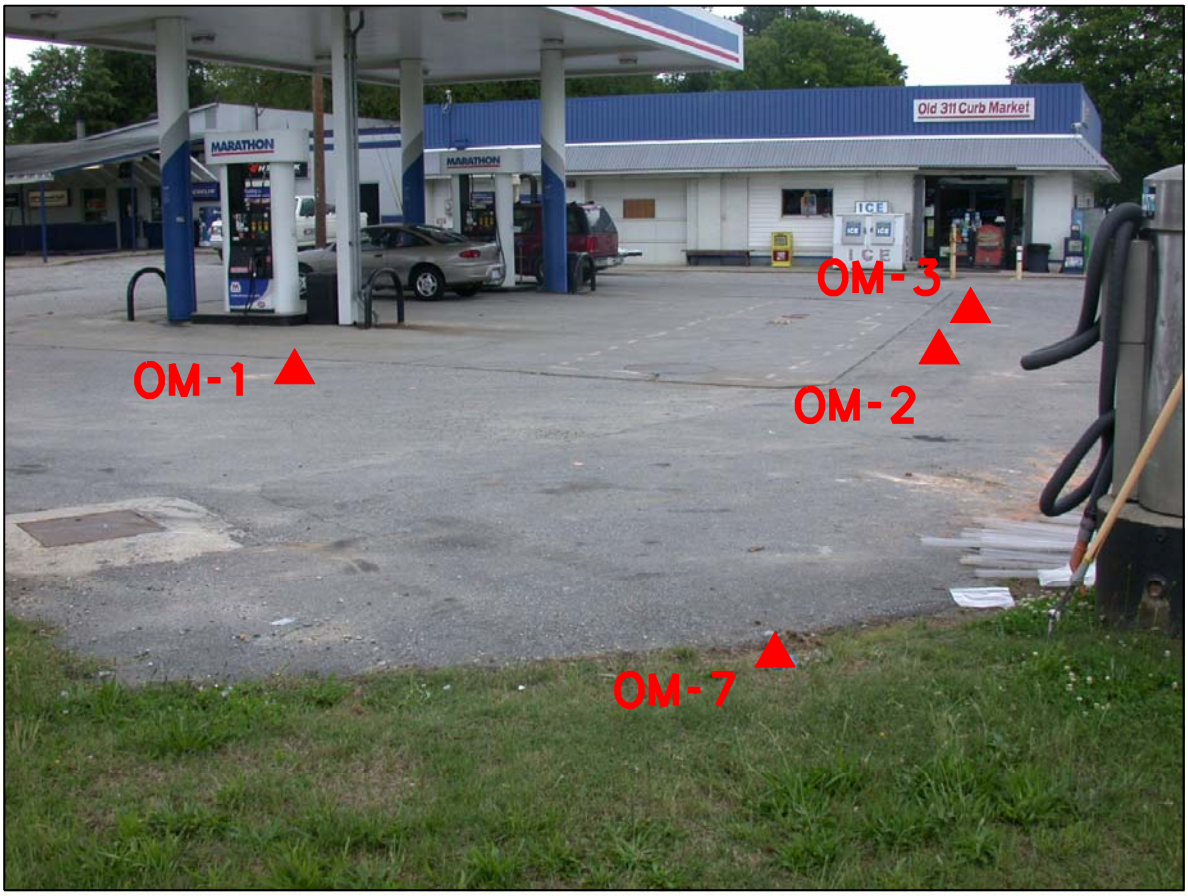


PHOTO 7 - BORINGS WITHIN PROPOSED R/W LOOKING EAST

PHOTO 8 - BORING WITHIN PROPOSED R/W LOOKING EAST

PHOTO 9 - BORING WITHIN PROPOSED R/W LOOKING EAST

PHOTO 10 - BORING WITHIN PROPOSED R/W LOOKING EAST

PHOTO 11 - BORING WITHIN PROPOSED R/W LOOKING EAST

ATTACHMENT E

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

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

Case Narrative

06/09/2010

AECOM (Earth Tech) NCDOT Proj.
Mike Branson
Suite 475, 701 Corporate Center Dr.
Raleigh, NC 27607

Project: NCDOT- Old 311 Curb Market
Project No.: WBS#40278.1.1
Lab Submittal Date: 05/28/2010
Prism Work Order: 0050751

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.

President/Project Manager

Reviewed By

Data Qualifiers Key Reference:

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

06/09/2010

Prism Work Order: 0050751

Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received
OM-1	0050751-01	Solid	05/25/10	05/28/10
OM-2	0050751-02	Solid	05/25/10	05/28/10
OM-3	0050751-03	Solid	05/25/10	05/28/10
OM-4	0050751-04	Solid	05/25/10	05/28/10
OM-5	0050751-05	Solid	05/25/10	05/28/10
OM-6	0050751-06	Solid	05/25/10	05/28/10
OM-7	0050751-07	Solid	05/25/10	05/28/10
OM-8	0050751-08	Solid	05/25/10	05/28/10
OM-9	0050751-09	Solid	05/25/10	05/28/10
OM-10	0050751-10	Solid	05/25/10	05/28/10
OM-11	0050751-11	Solid	05/25/10	05/28/10

Samples received in good condition at 4.9 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

AECOM (Earth Tech) NCDOT Proj.
Attn: Mike Branson
Suite 475, 701 Corporate Center Dr.
Raleigh, NC 27607

Project: NCDOT- Old 311 Curb Market
Project No.: WBS#40278.1.1
Sample Matrix: Solid

Client Sample ID: OM-1
Prism Sample ID: 0050751-01
Prism Work Order: 0050751
Time Collected: 05/25/10 10:00
Time Submitted: 05/28/10 08:15

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	6/3/10 16:51	JMV	P0F0051
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*81 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	5.2	0.68	50	*8015C	6/3/10 23:20	HPE	P0F0072
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*103 %*		*55-129*	
General Chemistry Parameters									
% Solids	**82.3**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**6/1/10 12:30**	**JAB**	**P0F0033**

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

AECOM (Earth Tech) NCDOT Proj.
Attn: Mike Branson
Suite 475, 701 Corporate Center Dr.
Raleigh, NC 27607

Project: NCDOT- Old 311 Curb Market
Project No.: WBS#40278.1.1
Sample Matrix: Solid

Client Sample ID: OM-2
Prism Sample ID: 0050751-02
Prism Work Order: 0050751
Time Collected: 05/25/10 10:30
Time Submitted: 05/28/10 08:15

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	10	1.7	1	*8015C	6/3/10 17:26	JMV	P0F0051
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*72 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	7.2	0.94	50	*8015C	6/3/10 23:51	HPE	P0F0072
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*91 %*		*55-129*	
General Chemistry Parameters									
% Solids	**68.4**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**6/1/10 12:30**	**JAB**	**P0F0033**

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

AECOM (Earth Tech) NCDOT Proj.
Attn: Mike Branson
Suite 475, 701 Corporate Center Dr.
Raleigh, NC 27607

Project: NCDOT- Old 311 Curb Market
Project No.: WBS#40278.1.1
Sample Matrix: Solid

Client Sample ID: OM-3
Prism Sample ID: 0050751-03
Prism Work Order: 0050751
Time Collected: 05/25/10 10:45
Time Submitted: 05/28/10 08:15

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	6/4/10 0:33	JMV	P0F0051
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*89 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	5.9	0.76	50	*8015C	6/4/10 0:23	HPE	P0F0072
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*95 %*		*55-129*	
General Chemistry Parameters									
% Solids	**81.9**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**6/1/10 12:30**	**JAB**	**P0F0033**

AECOM (Earth Tech) NCDOT Proj.
Attn: Mike Branson
Suite 475, 701 Corporate Center Dr.
Raleigh, NC 27607

Project: NCDOT- Old 311 Curb Market
Project No.: WBS#40278.1.1
Sample Matrix: Solid

Client Sample ID: OM-4
Prism Sample ID: 0050751-04
Prism Work Order: 0050751
Time Collected: 05/25/10 11:00
Time Submitted: 05/28/10 08:15

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	9.2	1.5	1	*8015C	6/3/10 18:02	JMV	P0F0051
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*84 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	5.2	0.67	50	*8015C	6/4/10 0:54	HPE	P0F0072
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*85 %*		*55-129*	
General Chemistry Parameters									
% Solids	**76.1**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**6/1/10 12:30**	**JAB**	**P0F0033**

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

AECOM (Earth Tech) NCDOT Proj.
Attn: Mike Branson
Suite 475, 701 Corporate Center Dr.
Raleigh, NC 27607

Project: NCDOT- Old 311 Curb Market
Project No.: WBS#40278.1.1
Sample Matrix: Solid

Client Sample ID: OM-5
Prism Sample ID: 0050751-05
Prism Work Order: 0050751
Time Collected: 05/25/10 11:15
Time Submitted: 05/28/10 08:15

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	8.4	1.4	1	*8015C	6/3/10 20:24	JMV	P0F0051
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*92 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	5.9	0.76	50	*8015C	6/4/10 1:25	HPE	P0F0072
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*96 %*		*55-129*	
General Chemistry Parameters									
% Solids	**83.6**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**6/1/10 12:30**	**JAB**	**P0F0033**

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

AECOM (Earth Tech) NCDOT Proj.
Attn: Mike Branson
Suite 475, 701 Corporate Center Dr.
Raleigh, NC 27607

Project: NCDOT- Old 311 Curb Market
Project No.: WBS#40278.1.1
Sample Matrix: Solid

Client Sample ID: OM-6
Prism Sample ID: 0050751-06
Prism Work Order: 0050751
Time Collected: 05/25/10 11:30
Time Submitted: 05/28/10 08:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	**16**	**mg/kg dry**	**9.4**	**1.5**	**1**	***8015C**	**6/4/10 8:48**	**JMV**	**P0F0051**
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*93 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	5.4	0.70	50	*8015C	6/4/10 1:57	HPE	P0F0072
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*96 %*		*55-129*	
General Chemistry Parameters									
% Solids	**74.2**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**6/1/10 12:30**	**JAB**	**P0F0033**

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

AECOM (Earth Tech) NCDOT Proj.
Attn: Mike Branson
Suite 475, 701 Corporate Center Dr.
Raleigh, NC 27607

Project: NCDOT- Old 311 Curb Market
Project No.: WBS#40278.1.1
Sample Matrix: Solid

Client Sample ID: OM-7
Prism Sample ID: 0050751-07
Prism Work Order: 0050751
Time Collected: 05/25/10 13:00
Time Submitted: 05/28/10 08:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	**13**	**mg/kg dry**	**10**	**1.6**	**1**	***8015C**	**6/4/10 1:09**	**JMV**	**P0F0051**
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*95 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	**6.9**	**mg/kg dry**	**6.8**	**0.89**	**50**	***8015C**	**6/4/10 2:28**	**HPE**	**P0F0072**
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*93 %*		*55-129*	
General Chemistry Parameters									
% Solids	**69.1**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**6/1/10 12:30**	**JAB**	**P0F0033**

AECOM (Earth Tech) NCDOT Proj.
Attn: Mike Branson
Suite 475, 701 Corporate Center Dr.
Raleigh, NC 27607

Project: NCDOT- Old 311 Curb Market
Project No.: WBS#40278.1.1
Sample Matrix: Solid

Client Sample ID: OM-8
Prism Sample ID: 0050751-08
Prism Work Order: 0050751
Time Collected: 05/25/10 13:30
Time Submitted: 05/28/10 08:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	**13**	**mg/kg dry**	**9.0**	**1.5**	**1**	***8015C**	**6/3/10 21:00**	**JMV**	**P0F0051**
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*95 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	**220**	**mg/kg dry**	**5.7**	**0.74**	**50**	***8015C**	**6/4/10 2:59**	**HPE**	**P0F0072**
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*100 %*		*55-129*	
General Chemistry Parameters									
% Solids	**77.6**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**6/1/10 12:30**	**JAB**	**P0F0033**

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

AECOM (Earth Tech) NCDOT Proj.
Attn: Mike Branson
Suite 475, 701 Corporate Center Dr.
Raleigh, NC 27607

Project: NCDOT- Old 311 Curb Market
Project No.: WBS#40278.1.1
Sample Matrix: Solid

Client Sample ID: OM-9
Prism Sample ID: 0050751-09
Prism Work Order: 0050751
Time Collected: 05/25/10 13:45
Time Submitted: 05/28/10 08:15

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	6/3/10 19:13	JMV	P0F0051
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*84 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	7.2	0.93	50	*8015C	6/4/10 3:31	HPE	P0F0072
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*113 %*		*55-129*	
General Chemistry Parameters									
% Solids	**80.5**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**6/1/10 12:30**	**JAB**	**P0F0033**

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

AECOM (Earth Tech) NCDOT Proj.
Attn: Mike Branson
Suite 475, 701 Corporate Center Dr.
Raleigh, NC 27607

Project: NCDOT- Old 311 Curb Market
Project No.: WBS#40278.1.1
Sample Matrix: Solid

Client Sample ID: OM-10
Prism Sample ID: 0050751-10
Prism Work Order: 0050751
Time Collected: 05/25/10 14:00
Time Submitted: 05/28/10 08:15

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	6/3/10 21:35	JMV	P0F0051
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*93 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	7.9	1.0	50	*8015C	6/4/10 4:02	HPE	P0F0072
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*88 %*		*55-129*	
General Chemistry Parameters									
% Solids	**82.0**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**6/1/10 12:30**	**JAB**	**P0F0033**

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

AECOM (Earth Tech) NCDOT Proj.
Attn: Mike Branson
Suite 475, 701 Corporate Center Dr.
Raleigh, NC 27607

Project: NCDOT- Old 311 Curb Market
Project No.: WBS#40278.1.1
Sample Matrix: Solid

Client Sample ID: OM-11
Prism Sample ID: 0050751-11
Prism Work Order: 0050751
Time Collected: 05/25/10 14:15
Time Submitted: 05/28/10 08:15

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	8.6	1.4	1	*8015C	6/3/10 19:48	JMV	P0F0051
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*81 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	5.4	0.70	50	*8015C	6/4/10 4:33	HPE	P0F0072
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*96 %*		*55-129*	
General Chemistry Parameters									
% Solids	**81.6**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**6/1/10 12:30**	**JAB**	**P0F0033**

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

AECOM (Earth Tech) NCDOT Proj.
Attn: Mike Branson
Suite 475, 701 Corporate Center Dr.
Raleigh, NC 27607

Project: NCDOT- Old 311 Curb Market

Project No: WBS#40278.1.1

Prism Work Order: 0050751
Time Submitted: 5/28/10 8:15:00AM

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 P0F0072 - 5035										
Blank (P0F0072-BLK1)				Prepared & Analyzed: 06/03/10						
Gasoline Range Organics	BRL	5.0	mg/kg wet							
Surrogate: a,a,a-Trifluorotoluene	*5.05*		*mg/kg wet*	*5.00*		*101*	*55-129*			
LCS (P0F0072-BS1)				Prepared & Analyzed: 06/03/10						
Gasoline Range Organics	45.8	5.0	mg/kg wet	50.0		92	67-116			
Surrogate: a,a,a-Trifluorotoluene	*5.55*		*mg/kg wet*	*5.00*		*111*	*55-129*			
LCS Dup (P0F0072-BSD1)				Prepared & Analyzed: 06/03/10						
Gasoline Range Organics	46.2	5.0	mg/kg wet	50.0		92	67-116	1	200	
Surrogate: a,a,a-Trifluorotoluene	*5.50*		*mg/kg wet*	*5.00*		*110*	*55-129*			

AECOM (Earth Tech) NCDOT Proj.
Attn: Mike Branson
Suite 475, 701 Corporate Center Dr.
Raleigh, NC 27607

Project: NCDOT- Old 311 Curb Market

Project No: WBS#40278.1.1

Prism Work Order: 0050751
Time Submitted: 5/28/10 8:15:00AM

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 P0F0051 - 3545A										
Blank (P0F0051-BLK1)				Prepared: 06/02/10 Analyzed: 06/03/10						
Diesel Range Organics	BRL	7.0	mg/kg wet							
Surrogate: o-Terphenyl	*1.38*		*mg/kg wet*	*1.60*		*86*	*49-124*			
LCS (P0F0051-BS1)				Prepared: 06/02/10 Analyzed: 06/03/10						
Diesel Range Organics	65.8	7.0	mg/kg wet	80.0		82	55-109			
Surrogate: o-Terphenyl	*1.86*		*mg/kg wet*	*1.60*		*117*	*49-124*			
LCS Dup (P0F0051-BSD1)				Prepared: 06/02/10 Analyzed: 06/03/10						
Diesel Range Organics	70.7	7.0	mg/kg wet	80.0		88	55-109	7	200	
Surrogate: o-Terphenyl	*1.99*		*mg/kg wet*	*1.60*		*124*	*49-124*			

Sample Extraction Data

Prep Method: 3545A

Lab Number	Batch	Initial	Final	Date
0050751-01	P0F0051	24.98 g	1 mL	06/02/10
0050751-02	P0F0051	24.99 g	1 mL	06/02/10
0050751-03	P0F0051	25.03 g	1 mL	06/02/10
0050751-04	P0F0051	25.07 g	1 mL	06/02/10
0050751-05	P0F0051	25.03 g	1 mL	06/02/10
0050751-06	P0F0051	25.03 g	1 mL	06/02/10
0050751-07	P0F0051	25.03 g	1 mL	06/02/10
0050751-08	P0F0051	25.09 g	1 mL	06/02/10
0050751-09	P0F0051	25.05 g	1 mL	06/02/10
0050751-10	P0F0051	25.05 g	1 mL	06/02/10
0050751-11	P0F0051	25.08 g	1 mL	06/02/10

Prep Method: 5035

Lab Number	Batch	Initial	Final	Date
0050751-01	P0F0072	5.83 g	5 mL	06/03/10
0050751-02	P0F0072	5.08 g	5 mL	06/03/10
0050751-03	P0F0072	5.2 g	5 mL	06/03/10
0050751-04	P0F0072	6.35 g	5 mL	06/03/10
0050751-05	P0F0072	5.1 g	5 mL	06/03/10
0050751-06	P0F0072	6.25 g	5 mL	06/03/10
0050751-07	P0F0072	5.31 g	5 mL	06/03/10
0050751-08	P0F0072	5.64 g	5 mL	06/03/10
0050751-09	P0F0072	4.32 g	5 mL	06/03/10
0050751-10	P0F0072	3.87 g	5 mL	06/03/10
0050751-11	P0F0072	5.65 g	5 mL	06/03/10

NO PREP

Lab Number	Batch	Initial	Final	Date
0050751-01	P0F0033	30 g	30 mL	06/01/10
0050751-02	P0F0033	30 g	30 mL	06/01/10
0050751-03	P0F0033	30 g	30 mL	06/01/10
0050751-04	P0F0033	30 g	30 mL	06/01/10
0050751-05	P0F0033	30 g	30 mL	06/01/10
0050751-06	P0F0033	30 g	30 mL	06/01/10
0050751-07	P0F0033	30 g	30 mL	06/01/10
0050751-08	P0F0033	30 g	30 mL	06/01/10
0050751-09	P0F0033	30 g	30 mL	06/01/10
0050751-10	P0F0033	30 g	30 mL	06/01/10
0050751-11	P0F0033	30 g	30 mL	06/01/10

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

CHAIN OF CUSTODY RECORD

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

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

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

Project Name: NCDOT - OLD 311 CORB MARKET
Short Hold Analysis: (Yes) (No) UST Project: (Yes) (No)
*Please ATTACH any project specific reporting (QC LEVEL I II III IV) provisions and/or QC Requirements
Invoice To: NCDOT
Address: _____

Client Company Name: AECOM
Report To/Contact Name: MIKE BRANSON
Reporting Address: 701 Corporate Center Dr Suite 475 Raleigh NC 27607
Phone: 9198546238 Fax (Yes) (No): 9198546259
Email (Yes) (No) Email Address MIKE.BRANSON@AECOM.COM
EDD Type: PDF X Excel ___ Other ___
Site Location Name: OLD 311 CORB MARKET
Site Location Physical Address: KERNERSVILLE

Purchase Order No./Billing Reference WBS # 40278.1.1
Requested Due Date ☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 4 Days ☐ 5 Days
"Working Days" ☐ 6-9 Days ☒ Standard 10 days ☐ Rush Work Must Be Pre-Approved
Samples received after 15:00 will be processed next business day.
Turnaround time is based on business days, excluding weekends and holidays.
(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

LAB USE ONLY

	YES	NO	N/A
Samples INTACT upon arrival? 1.9	✓		
Received ON WET ICE? Temp	✓		
PROPER PRESERVATIVES indicated?	✓		
Received WITHIN HOLDING TIMES?	✓		
CUSTODY SEALS INTACT?			✓
VOLATILES rec'd W/OUT HEADSPACE?			✓
PROPER CONTAINERS used?	✓		

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

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER *TYPE SEE BELOW	NO.	SIZE	PRESERVATIVES	ANALYSES REQUESTED DRO	GRO					REMARKS	PRISM LAB ID NO.
OM-1	5/25/10	1000	SOIL	CG	4	4/VOA	MeOH	✓	✓					4oz, 2oz	01
OM-2	5/25/10	1030	SOIL	CG	4	4/VOA	MeOH	✓	✓						02
OM-3	5/25/10	1045	SOIL	CG	4	4/VOA	MeOH	✓	✓						03
OM-4	5/25/10	1100	SOIL	CG	4	4/VOA	MeOH	✓	✓						04
OM-5	5/25/10	1115	SOIL	CG	4	4/VOA	MeOH	✓	✓						05
OM-6	5/25/10	1130	SOIL	CG	4	4/VOA	MeOH	✓	✓						06
OM-7	5/25/10	1300	SOIL	CG	4	4/VOA	MeOH	✓	✓						07
OM-8	5/25/10	1330	SOIL	CG	4	4/VOA	MeOH	✓	✓						08
OM-9	5/25/10	1345	SOIL	CG	4	4/VOA	MeOH	✓	✓						09
OM-10	5/25/10	1400	SOIL	CG	4	4/VOA	MeOH	✓	✓						10
OM-11	5/25/10	1415	SOIL	CG	4	4/VOA	MeOH	✓	✓						11

Sampler's Signature M Branson | Sampled By (Print Name) M BRANSON | Affiliation AECOM

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.

		Date	Military/Hours
Relinquished By: (Signature) Mike Branson	Received By: (Signature)	052710	1100
Relinquished By: (Signature)	Received By: (Signature)	5/27/10	1230
Relinquished By: (Signature) 5/28/10 815	Received For Prism Laboratories By:	5/28/10	B15

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. 0050751

Additional Comments: INVOICE NCDOT CONTROL BLANKET PO

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

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

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

SEE REVERSE FOR TERMS & CONDITIONS

ORIGINAL