

**UNDERGROUND STORAGE TANK CLOSURE REPORT**

**FOR**

**NCDOT**

**STATE PROJECT: R-2303A**

**WBS ELEMENT: 34416.1.1**

**DESCRIPTION: NC 24 FROM WEST OF SR 1006 (MAXWELL  
RD./CLINTON RD.) IN CUMBERLAND COUNTY TO SR 1853 (JOHN  
NUNNERY RD.)**

**PARCEL #78**

**JEFFERY W. SMITH PROPERTY**

**6809 CLINTON ROAD**

**STEDMAN, CUMBERLAND COUNTY, NORTH CAROLINA 28391**

**MARCH 19, 2012**

**PREPARED FOR:**



**NCDOT GEOTECHNICAL ENGINEERING UNIT-GEOENVIRONMENTAL SECTION  
1589 MAIL SERVICE CENTER  
RALEIGH, NORTH CAROLINA 27699-1589**

**PREPARED BY:**

**CATLIN ENGINEERS AND SCIENTISTS  
P.O. BOX 10279  
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(910) 452-5861**

**CATLIN PROJECT NO. 212004**

**CORPORATE GEOLOGY LICENSE CERTIFICATION NO. C-118  
CORPORATE LICENSURE NO. FOR ENGINEERING SERVICES C-0585**

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**UNDERGROUND STORAGE TANK CLOSURE REPORT  
FOR  
NCDOT  
PARCEL #78, JEFFERY W. SMITH  
STATE PROJECT: R-2303A  
WBS ELEMENT: 34416.1.1  
DESCRIPTION: NC 24 FROM WEST OF SR 1006 (MAXWELL RD./CLINTON RD.)  
IN CUMBERLAND COUNTY TO SR 1853 (JOHN NUNNERY RD.)**

**MARCH 19, 2012**

**A. GENERAL INFORMATION**

**1. SITE INFORMATION**

**1.1 Site Name**

NCDOT Proposed Right-of-Way (ROW)  
Parcel 78  
Jeffery W. Smith Property  
Stedman Hair Care (Current Occupant)

**1.2 Facility I.D. Number**

Unknown

**1.3 Site address, telephone number and county**

6809 Clinton Road  
Stedman, Cumberland County, North Carolina 28391  
Telephone: 910-303-1411  
(See Figures 1 and 2)  
Longitude -78.70924° W  
Latitude 35.01756° N

**2. CONTACTS INFORMATION**

**2.1 Name, address, and telephone number of UST owner and operator**

Orphan

**2.2 Name, address, telephone number and job title of primary contact person**

Mr. Terry Fox, LG  
NCDOT GeoEnvironmental Section  
1589 MSC  
Raleigh, North Carolina 27699-1589  
Telephone: 919-707-6850

**2.3 Name, address and telephone number of closure contractor(s)**

Mr. Tony Disher  
EVO Corporation  
1703 Vargrave Street  
Winston-Salem, North Carolina 27107  
Telephone: 336-725-5944

**2.4 Name, address and telephone number of primary consultant**

CATLIN Engineers and Scientists (CATLIN)  
Attn: G. Richard Garrett, P.G.  
P.O. Box 10279  
Wilmington, North Carolina 28404-0279  
Telephone: 910-452-5861

**2.5 Name, address and telephone number of soil disposal contractor**

ES&J Enterprises, Incorporated  
1555 Holland Road  
Autryville, North Carolina 28318  
Telephone: 919-567-6138  
NCDENR Permit #: SR0600035

**2.6 Name, address, telephone number, and State Certification number of laboratory**

SGS North America, Inc.  
5500 Business Drive  
Wilmington, North Carolina 28405  
Telephone: 910-350-1903  
North Carolina State Certification No. 481

**B. SITE HISTORY AND CHARACTERIZATION**

Currently this site operates as a hair care salon. Historically the site operated as a gas station. The site is located on the north side of Clinton Road approximately 180 feet west of Blake Road (see Figure 1 for project location). According to the North Carolina Department of Environment and Natural Resource's Underground Storage Tank (NCDENR's UST) Section registry there are no known Facility IDs or Groundwater Incidents associated with this site. The known site history is summarized on Tables 1 and 2.

Acquisition of the right-of-way is necessary for NC 24 roadway construction (above referenced State Project R-2303A) and specifically at the above referenced parcel. A site investigation was conducted by CATLIN in late 2010 resulting in a Preliminary Site Assessment (PSA) Report dated January 7, 2011 (Revised January 12, 2011). Underground storage tanks and contaminated soil in the proposed right-of-way and/or easement were identified at the site.

Three (3) probable USTs were identified during the geophysical survey. Additionally, one possible UST was identified during geophysical data post-processing. According to the geophysical report, the UST Number 1 is about 550-gallon capacity, is approximately two (2) to three (3) feet below land surface (BLS) and located near the southeast corner of the building. A vent pipe was also identified on the east side of the southeast building corner. The UST Number 2 is about 560-gallon capacity, is approximately two (2) feet BLS and located south of the Stedman Hair Care building. The UST Number 3 is about 270-gallon capacity, is approximately two (2) feet BLS and located east of UST Number 2. A fill port filled with concrete was also located in the UST Number 3 location. Possible UST Number 4 is about 550-gallon capacity, approximately three (3) to four (4) feet BLS, and is located east of UST Number 1.

The facility UST information is summarized on Table 1 (NCDENR Table B-1). The UST owner and operator information is summarized on Table 2 (NCDENR Table B-2).

Eleven (11) borings were advanced during the previous PSA investigation. One (1) sample was collected from each boring for total petroleum hydrocarbon (TPH) diesel and gasoline range organics (DRO and GRO) laboratory analysis. Borings were advanced near the suspected USTs and the former dispenser island. Seven (7) of 11 soil samples revealed detectable TPH concentrations.

According the NCDOT Request for Proposal (RFP) dated January 5, 2012, the current scope of work at the site included excavating and properly disposing of soils necessary for removing the known UST system (including tank contents, associated piping and dispenser material). No over-excavation of petroleum impacted soils was requested.

## **C. CLOSURE PROCEDURES**

### **1. PREPARATIONS**

CATLIN was contracted by NCDOT to facilitate roadway construction by removing the UST system at the site (and in the right-of-way). CATLIN performed all field work in accordance with the site *Health and Safety Plan* (available for review at the CATLIN Wilmington Office).

A Notice of Intent (UST-3 form) was submitted to the NCDENR Fayetteville Regional Office February 3, 2012 (see Appendix A). The Cumberland County Emergency Services was notified and a permit was obtained through the Cumberland County Fire Marshal by EVO.

CATLIN and subcontractor EVO personnel mobilized to the site on February 14, 2012.

## **2. CLOSURE PROCEDURES**

The site layout is illustrated on Figure 2. As indicated on Table 1, four (4) tanks and associated dispenser piping were located at the site.

Residual material was pumped from the lines and each UST by a vacuum truck. Each tank was then pressure washed with potable water and pumped dry again. Dry ice was placed in each tank to displace any potentially flammable vapors. EVO personnel measured the inside of the tank for acceptable oxygen and explosive vapor readings prior to removal. The Cumberland County Fire Marshal granted permission to remove the tanks.

The top of the tanks were approximately two (2) feet BLS. Sufficient soils were removed from the tops and sides of the USTs allowing them to be lifted from the excavation. The tanks were constructed of steel. The tanks were previously numbered during the geophysical investigation as 1, 2, 3, and 4 (see Table 1 and Figure 2). All piping was disconnected from the tanks and removed from the site.

All the USTs except UST #4 were found in poor condition with severe rusting, pitting and some broken welds and through holes. There were no broken welds or through holes observed in UST #4.

Excavated soils were loaded directly into dump trucks for off-site disposal. Soils were only removed to facilitate UST system closure. A *Site Investigation Report for Permanent Closure or Change-in-Service of UST (UST-2)* form is included in Appendix B.

## **3. RESIDUAL MATERIAL AND DISPOSAL**

The residual fuel in the fuel lines and tanks removed by the vacuum truck was properly disposed of at a permitted facility. According to the Certificates of Disposal in Appendix C, 730 gallons of product and water were disposed of. As indicated on the Tanks Disposal Certificate in Appendix C, the tanks were transported to Autry Mills Recycling in Roseboro, North Carolina for proper disposal and recycling.

## **4. SOIL EXCAVATION ACTIVITIES**

The top of USTs were approximately two (2) feet BLS. The bottoms of the USTs were approximately six (6) feet BLS. Groundwater was not encountered during tank removal activities. The USTs #1 and #4 were located end to end in the same tank basin. The USTs #2 and #3 were located side by side in the same tank basin. The UST basin excavation limits are illustrated on Figure 2. Excavation activity photographs are provided in Appendix D.

Sandy/clayey soils were encountered surrounding the tanks. Soils from the UST excavation were transported off-site for proper disposal. Soils were only removed as necessary to facility UST system closure. Clean sands from an offsite borrow source were used to backfill the excavation within eight (8) inches of original ground surface. The excavation was backfilled to the surface with at least eight (8) inches of aggregate-coarse-base (ABC) stone. All backfill was emplaced and tamp with the excavator bucket.

## **D. SITE INVESTIGATION**

### **1. FIELD-SCREENING**

Soil screening with a photo-ionization detector was not conducted during this UST closure.

### **2. SOIL SAMPLING**

UST closure soil samples were collected in accordance with NCDENR guidance documents. Grab samples were taken from the excavation floor beneath the tanks at approximately six (6) feet BLS. Samples were identified by UST number, north, south, east, west orientation, and depth [sample identification example = UST#1-W (6')]. Soil sample locations are illustrated on Figure 2. Sample material was obtained by the excavator bucket from beneath the former tank locations. Soil samples were packed into the appropriate laboratory provided glassware immediately following collection.

Seven (7) soil samples were submitted to the laboratory for TPH DRO and GRO analysis per Environmental Protection Agency (EPA) Method 8015C. Sample identifications, depths, and times are provided on the Chain-of-Custody in Appendix E.

### **3. GROUNDWATER SAMPLING**

No groundwater samples were collected during this investigation.

### **4. QUALITY CONTROL MEASURES**

Clean disposable nitrile gloves were used for each sampling event. Soil samples were collected by hand from undisturbed material obtained by the excavator bucket and packed directly into new laboratory provided glassware.

All samples were placed into appropriate sample jars with Teflon<sup>®</sup> lid liners, labeled with the site location, date, time, initials of person collecting

sample, sample identification number, depth of sample, and tests required. Samples were then placed on ice in a cooler and maintained at approximately 4° Celsius during storage and transport to the laboratory. A temperature blank and trip blank were preserved in the cooler along with the site samples. A Chain-of-Custody form was maintained from the point of sampling until delivery to the laboratory.

No duplicate samples were submitted for laboratory analysis. According to the attached laboratory report (see Appendix E), the sample results are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards and analytical quality control data is available upon request.

## **5. RESULTS**

Photographs of UST removal and backfilling activities are provided in Appendix D. No detectable TPH concentrations were revealed in any UST closure soil samples taken beneath UST #3 and UST #4. The UST closure soil sample collected beneath UST #1 and UST #2 revealed TPH DRO and GRO concentrations above NCDENR Action Level of 10 milligrams per kilogram (mg/kg). The TPH DRO concentrations ranged from a low of 11.7 mg/kg in the UST #1-W (6') to a high of 98.1 mg/kg in the UST #2-S (6') soil sample. The TPH GRO concentrations ranged from a low of 30.5 mg/kg in the UST #1-W (6') sample to a high of 663 mg/kg in the UST #2-S (6') soil sample. Summarized UST system closure results are provided on Table 3 and illustrated on Figure 2.

The complete laboratory analytical report is provided in Appendix E. No groundwater samples were collected during this investigation. Photographs of the final site conditions are provided in Appendix D.

## **E. SOIL DISPOSAL**

The excavated soils were transported to ES&J Enterprises, Inc. in Autryville, North Carolina for proper disposal. According to the documentation provided in Appendix E, 38.44 tons of soils were accepted for disposal/treatment at the facility.

## **F. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

The UST closure was completed in general accordance with applicable State and Federal Guidelines to facilitate NCDOT related construction activities. Based on the results of this investigation, residual petroleum impacted soils remain beneath the former UST #1 UST #2 locations. Based on the previous investigation results, TPH impacted also remain around the former UST #3 location. No TPH impacted soil have been revealed during this investigation or the previous investigation around the former UST #4 location.

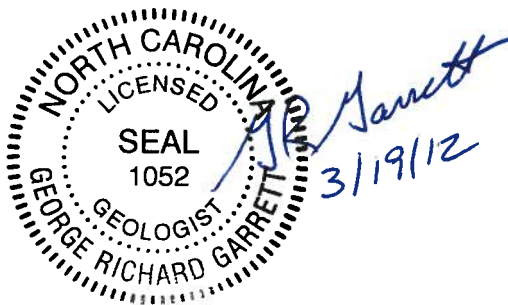


CATLIN recommends forwarding a copy of this report to the NCDENR Fayetteville Regional Office UST Section with a cover letter indicating the presence of TPH impacted soils above the NCDENR Action Level. Additionally, it is recommended that any utility or roadway construction contractor should be notified of these findings and be advised to be prepared to handle petroleum impacted soils near former USTs #1, #2, and #3 (as identified on Figure 2). In the event a cut is required for roadway construction or utility installation, any soil samples revealing detectable TPH concentrations will be considered petroleum impacted for handling and disposal purposes.

**G. LIMITATIONS**

This report is based on the agreed work scope and a review of available data from limited sampling. It is possible that this investigation may have failed to reveal the presence of contamination on the subject site where such contamination may exist. Although CATLIN has used accepted methods appropriate for UST closure and contaminated soil removal sampling, CATLIN cannot guarantee that additional soil and/or groundwater contamination does not exist.

**H. SIGNATURES**



G. Richard Garrett, P.G.  
Senior Project Manager

Benjamin J. Ashba  
Project Manager

## **TABLES**

**TABLE 1  
 SITE HISTORY – UST SYSTEM AND OTHER RELEASE INFORMATION**

Incident Number and Name: Pending – Jeffery W. Smith Property 6809 Clinton Rd. Stedman, NC 28391 Facility ID: Unknown

UST ID Number	Current/ Last Contents	Previous Contents	Capacity (gallons)	Construction Details	Tank Dimensions	Description of Associated Piping and Pumps	Date Tank Installed	Status of UST	Was release associated with the UST System?
1	Gasoline (assumed)	Unknown	550	Steel	6.65'x3.75'	Steel	Unknown	Removed Feb. 2012	Yes (assumed)
2	Gasoline (assumed)	Unknown	575	Steel	7.75'x3.55'	Steel	Unknown	Removed Feb. 2012	Yes (assumed)
3	#2 Fuel Oil (assumed)	Unknown	275	Steel	3.25'x3.8'	Steel	Unknown	Removed Feb. 2012	No
4	Gasoline (assumed)	Unknown	1,000	Steel	10'x4.25'	Steel	Unknown	Removed Feb. 2012	No

**TABLE 2  
 SITE HISTORY - UST OWNER AND OPERATOR INFORMATION**

Number and Name: Pending—Jeffery W. Smith Prop. 6809 Clinton Rd. Stedman, NC 28391

UST ID Numbers	1, 2, 3, and 4	Facility ID Number	Unknown
Name of Owner		Dates of Operation	
Orphan		Unknown	
Street Address			
City	State	Zip	Telephone Number
Name of Operator		Dates of Operation	
Unknown		Unknown	
Street Address (Site Address)			
6809 Clinton Road (NC 24)			
City	State	Zip	Telephone Number
Stedman	NC	28391	Stedman Hair Care: 910-483-7386
Incident Number	Pending		
Name of Other Responsible Party		Dates of Release(s)	
None		Unknown	
Street Address			
City	State	Zip	Telephone Number

**TABLE 3**  
**SUMMARY OF SOIL LABORATORY RESULTS - EPA METHOD 8015C**

Incident Number and Name: Pending – Jeffery W. Smith Property 6809 Clinton Road Stedman, Cumberland County, NC Facility ID: Unknown

Sample ID	Contaminant of Concern →		Diesel Range Organics (DRO)	Gasoline Range Organics (GRO)
	Date Collected	Sample Depth (ft. BLS)		
UST#1-W (6ft)	2/14/2012	6	<b>11.7</b>	<b>30.5</b>
UST#1-E (6ft)	2/14/2012	6	<b>21.2</b>	<b>45.4</b>
UST#2-N (6ft)	2/14/2012	6	<b>15.8</b>	<b>78.0</b>
UST#2-S (6ft)	2/14/2012	6	<b>98.1</b>	<b>663</b>
UST#3 (6ft)	2/14/2012	6	<7.15	<3.31
UST#4-W (6ft)	2/14/2012	6	<7.17	<3.43
UST#4-E (6ft)	2/14/2012	6	<7.52	<3.79
NCDENR Action Level			10	10

All results in milligrams per kilogram (mg/kg).

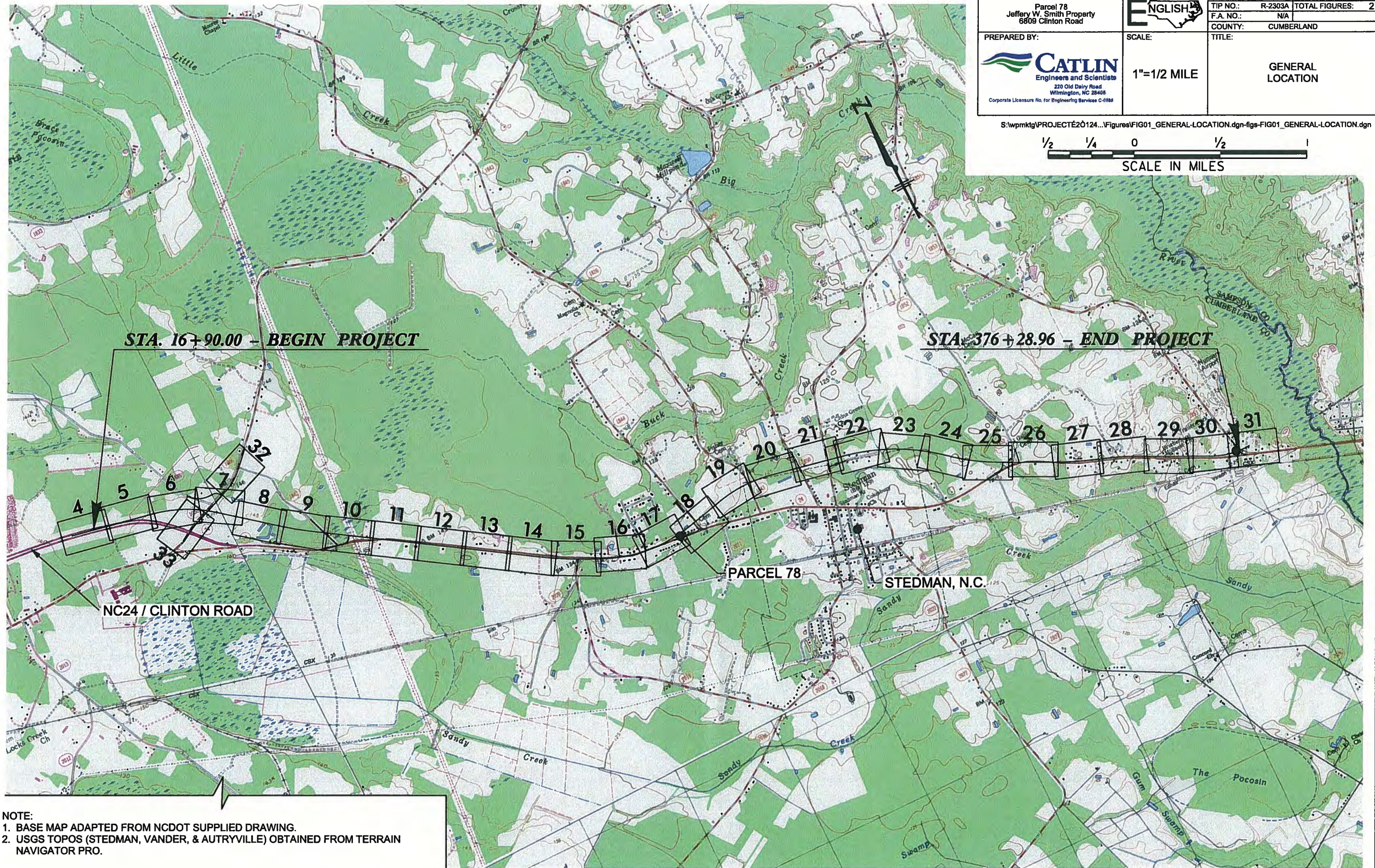
ft. BLS = Feet Below Land Surface

NCDENR = North Carolina Department of Environment and Natural Resources

Results in bold exceed the NCDENR Action Level.

< = Less than method detection limit

## FIGURES



DESCRIPTION: Parcel 78 Jeffery W. Smith Property 6809 Clinton Road	<b>ENGLISH</b>	WBS ELEM.: 34416.1.1   FIGURE NO. 1 TIP NO.: R-2303A   TOTAL FIGURES: 2 F.A. NO.: N/A COUNTY: CUMBERLAND
	PREPARED BY: <b>CATLIN</b> Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 <small>Corporate License No. for Engineering Services C-0185</small>	SCALE: 1"=1/2 MILE

S:\wpmktg\PROJECT\20124...Figures\FIG01\_GENERAL-LOCATION.dgn-figs-FIG01\_GENERAL-LOCATION.dgn

1/2 1/4 0 1/2 1

SCALE IN MILES

**STA. 16+90.00 - BEGIN PROJECT**

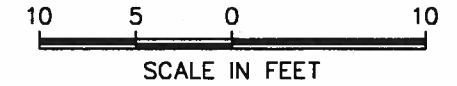
**STA. 376+28.96 - END PROJECT**

NC24 / CLINTON ROAD

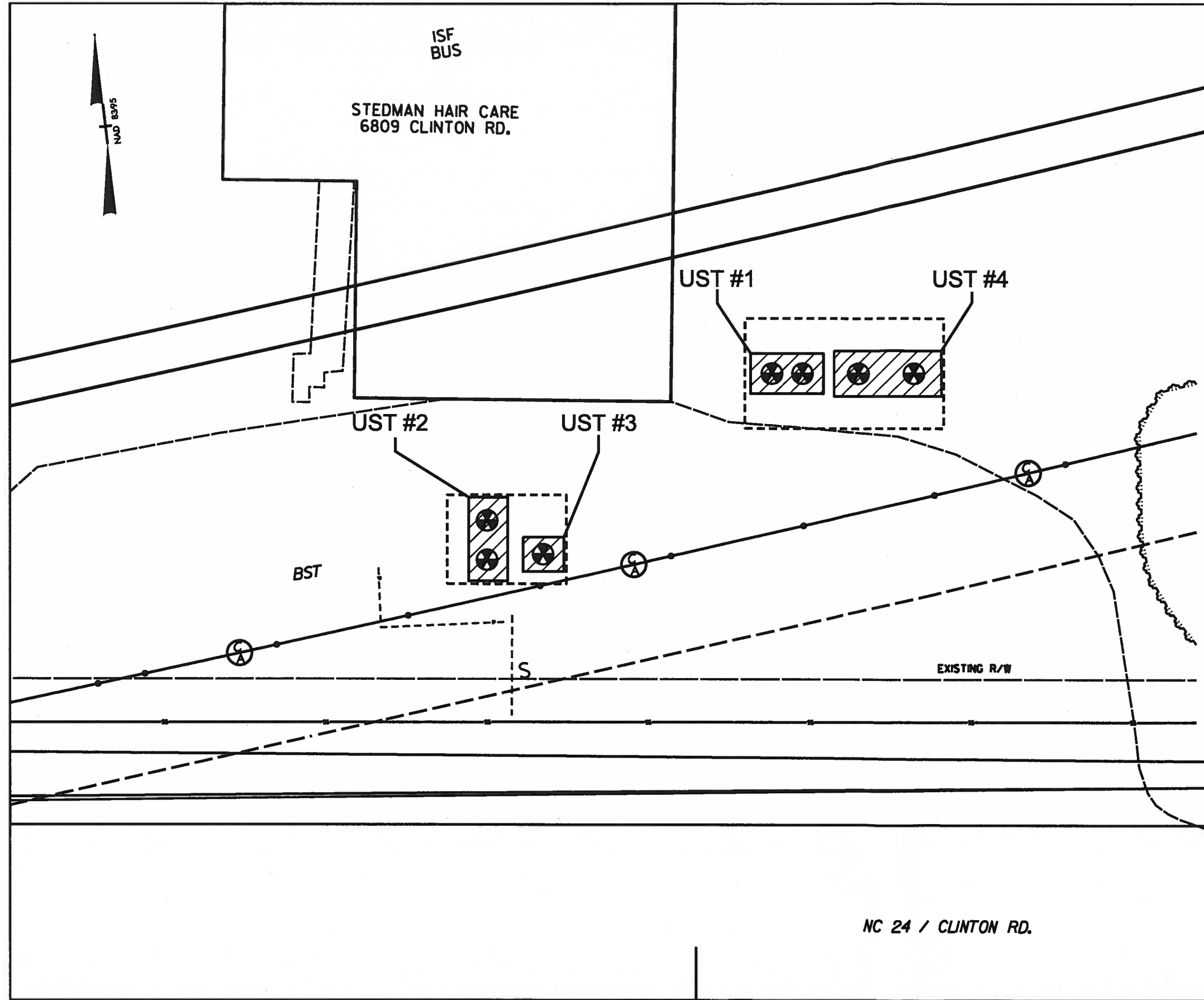
PARCEL 78  
 STEDMAN, N.C.

**NOTE:**  
 1. BASE MAP ADAPTED FROM NCDOT SUPPLIED DRAWING.  
 2. USGS TOPOS (STEDMAN, VANDER, & AUTRYVILLE) OBTAINED FROM TERRAIN NAVIGATOR PRO.

DESCRIPTION: Parcel 78 Jeffery W. Smith Property 6809 Clinton Road	ENGLISH	WBS ELEM.: 34416.1.1 TIP NO.: R-2303A F.A. NO.: N/A COUNTY: CUMBERLAND	FIGURE NO.: 2 TOTAL FIGURES: 2
PREPARED BY:  <b>CATLIN</b> Engineers & Scientists 232 Old Delany Road Wilmington, NC 28408 Corporate License No. for Engineering Services C-0685	SCALE:  1"=10'	TITLE:  SITE MAP WITH UST CLOSURE SOIL SAMPLES	



S:\project-2010-210124-figs-parcel 78\_1.dgn



**SUMMARY OF SOIL LABORATORY RESULTS - EPA METHOD 8015C**

Sample ID	Contaminant of Concern		Diesel Range Organics (DRO)	Gasoline Range Organics (GRO)
	Date Collected	Sample Depth (ft. BLS)		
UST#1-W (6ft)	2/14/2012	6	11.7	30.5
UST#1-E (6ft)	2/14/2012	6	<b>21.2</b>	<b>45.4</b>
UST#2-N (6ft)	2/14/2012	6	<b>15.8</b>	<b>78.0</b>
UST#2-S (6ft)	2/14/2012	6	<b>98.1</b>	<b>663</b>
UST#3 (6ft)	2/14/2012	6	<7.15	<3.31
UST#4-W (6ft)	2/14/2012	6	<7.17	<3.43
UST#4-E (6ft)	2/14/2012	6	<7.52	<3.79
NCDENR Action Level			10	10

All results in milligrams per kilogram (mg/kg).  
ft. BLS = Feet Below Land Surface.  
NCDENR = North Carolina Department of Environment and Natural Resources  
Results in bold exceed the NCDENR Action Level.  
< = Less than method detection limit

**LEGEND**

- EXCAVATION LIMITS
- UNDERGROUND STORAGE TANKS
- UST CLOSURE SAMPLE LOCATION

**NOTE:**  
1. BASE MAP ADAPTED FROM NCDOT SUPPLIED DRAWING.  
2. UNDERGROUND UTILITIES IDENTIFIED BY NC-ONE-CALL AND GEOPHYSICAL INVESTIGATION NOT SHOWN.

**S 85°16' 54" E**



**APPENDIX A**

**UST-3 FORM**

# UST-3

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

**Return completed form to:**

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

STATE USE ONLY  
I.D. # \_\_\_\_\_  
Date Received \_\_\_\_\_

**INSTRUCTIONS (READ THIS FIRST)**

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

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

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

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

I. OWNERSHIP OF TANKS		II. LOCATION	
Owner Name (Corporation, Individual, Public Agency, or Other Entity) <b>Stedman Hair Care / Orphan</b>		Facility Name or Company <b>Stedman Hair Care</b>	
Street Address <b>6809 Clinton Rd.</b>		Facility ID # (If known) <b>Unknown - Orphan</b>	
City <b>Stedman</b>	County <b>Cumberland</b>	Street Address <b>6809 Clinton Rd.</b>	
State <b>NC</b>	Zip Code <b>28391</b>	City <b>Stedman</b>	County <b>Cumberland</b> Zip Code <b>28391</b>
Phone Number <b>910-483-7386</b>		Phone Number <b>910-483-7386</b>	

III. CONTACT PERSONNEL			
Name: <b>Terry W. Fox, LG</b>	Company Name: <b>NCDOT</b>	Job Title: <b>Project Manager</b>	Phone Number: <b>919-707-6870</b>

IV. TANK REMOVAL, CLOSURE IN PLACE, CHANGE-IN SERVICE		
<ol style="list-style-type: none"> <li>1. Contact local fire marshal.</li> <li>2. Plan entire closure event.</li> <li>3. Conduct Site Soil Assessment.</li> <li>4. If removing tanks or closing in place, refer to API Publication 2015 <i>Cleaning Petroleum Storage Tanks</i> and 1604 <i>Removal and Disposal of Used Underground Petroleum Storage Tanks</i>.</li> </ol>	<ol style="list-style-type: none"> <li>5. Provide a sketch locating piping, tanks and soil sampling locations.</li> <li>6. Submit a closure report in the format of UST-12 (including the form UST-2) within thirty (30) days following the site investigation.</li> <li>7. If a release from the tanks has occurred, the site assessment portion of the tank closure must be conducted under the supervision of</li> </ol>	<p>a P.E. or L.G., with all closure site assessment reports bearing the signature and seal of the P.E. or L.G. If a release has not occurred, the supervision, signature or seal of a P.E. or L.G. is not required.</p> <ol style="list-style-type: none"> <li>8. Keep closure records for three (3) years.</li> </ol>

V. WORK TO BE PERFORMED BY			
Contractor Name: <b>Tony Disher</b>		Contractor Company Name: <b>EVO</b>	
Address: <b>1703 Vargrave St.</b>		State: <b>NC</b>	Zip Code: <b>27107</b> Phone No: <b>336-725-5844</b>
Primary Consultant Name: <b>Rick Garrett</b>		Primary Consultant Company Name: <b>CATLIN</b> Consultant Phone No: <b>910-452-5861</b>	

VI. TANKS SCHEDULED FOR CLOSURE OR CHANGE-IN-SERVICE					
Tank ID No.	Size in Gallons	Last Contents	Proposed Activity		
			Removal	Closure Abandonment in Place *	Change-In-Service New Contents Stored
1	560	Unknown	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2	550	Unknown	<input type="checkbox"/>	<input type="checkbox"/>	
3	270	Unknown	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4	550	Unknown	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	

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

**VII. OWNER OR OWNER'S AUTHORIZED REPRESENTATIVE**

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

Print name and official title: **G. Richard Garrett, L.G., CATLIN PROJECT MANAGER**      Agent for NCDOT

Signature <i>GR Garrett (Agent NCDOT)</i>	Date Signed <b>2/3/12</b>	SCHEDULED REMOVAL DATE <b>February 13, 2012</b>	Notify your DWM Regional Office 48 hours before this date if scheduled removal date changes
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**APPENDIX B**

**UST-2 FORM**

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

**Return completed form to:**

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

STATE USE ONLY:

I.D. # \_\_\_\_\_

Date Received \_\_\_\_\_

**INSTRUCTIONS (READ THIS FIRST)**

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

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

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

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

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

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

**I. OWNERSHIP OF TANKS**

**II. LOCATION OF TANKS**

Owner Name (Corporation, Individual, Public Agency, or Other Entity) Orphan	Facility Name or Company Jeffery W. Smith, Stedman Haircare - Proposed NCDOT ROW		
Street Address	Facility ID # (If known) Unknown		
City	County	Street Address 6809 Clinton Road	
State	Zip Code	City Stedman	County Cumberland
Phone Number	Zip Code 28391		
	Phone Number 910-483-7386		

**III. CONTACT PERSONNEL**

Contact for Facility: Terry Fox, LG	Job Title: NCDOT GeoEnvironmental Proj. Mgr.	Phone. No: 919-707-6869
Closure Contractor Name: Tony Disher	Closure Contractor Company: EVO	Address: 1703 Vargrave St. Winston-Salem, NC
Primary Consultant Name: Rick Garrett, P.G.	Primary Consultant Company: CATLIN Engineers & Scientists	Address: 220 Old Dairy Rd. Wilmington, NC
		Phone. No: 910-452-5861

**IV. UST INFORMATION FOR REGISTERED UST SYSTEMS**

**V. EXCAVATION CONDITION**

Tank ID No.	Size in Gallons	Tank Dimensions	Last Contents	Last Use Date	Permanent Close Date	Change-in-Service Date	Water in excavation		Free product		Notable odor or visible soil contamination	
							Yes	No	Yes	No	Yes	No
1	550	6.65'x3.75'	Gasoline, Ga	Unknown	2/14/12		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	575	7.75'x3.55"	Gasoline, Ga	Unknown	2/14/12		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	275	3.25'x3.8'	Unknown	Unknown	2/14/12		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	1000	10'x4.25'	Gasoline, Ga	Unknown	2/14/12		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**VI. UST INFORMATION FOR UNREGISTERED UST SYSTEMS**


**VII. EXCAVATION CONDITION**

Tank ID No.	Size in Gallons	Tank Dimensions	Last Contents	Last Use Date	Permanent Close Date	Tank Owner Name *	Water in excavation		Free product		Notable odor or visible soil contamination	
							Yes	No	Yes	No	Yes	No
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

**VIII. CERTIFICATION**

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

Print name and official title of owner or owner's authorized representative G. Richard Garrett, P.G.: CATLIN agent for NCDOT	Signature 	Date Signed 3/14/2012
---	---	--------------------------

**APPENDIX C**  
**CERTIFICATES OF DISPOSAL AND**  
**WASTE MATERIAL MANIFESTS**



1703 Vargrave Street  
Winston-Salem, NC 27107  
ph 336-725-5844  
fax 336-725-6244

---

## TANK DISPOSAL CERTIFICATE

Tank Owner: NCDOT/Stedman Hair Care

Site Address: 6809 Clinton Road  
Stedman, NC

Description of Tanks:

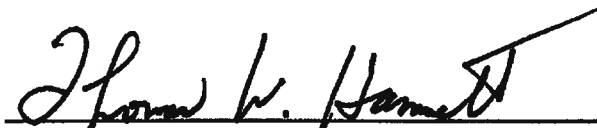
<u>Tank Number</u>	<u>Size of Tank</u>	<u>Contents</u>
1	550 gallons	Gasoline
2	575 gallons	Gasoline
3	275 gallons	#2 Fuel Oil
4	1,000 gallons	Gasoline

Transporter: Evo Corporation

EC Project #: 021206

Disposal Certification:

Evo Corporation does hereby certify that the above named storage tanks were transported to Autry Mills Recycling in Roseboro, NC for proper disposal and recycling.

  
Signature

Thomas W. Hammett  
CEO  
Evo Corporation

---

## CERTIFICATE OF DISPOSAL

Evo Corporation does hereby certify that 38.44 tons of non-hazardous contaminated material received on 02/14/2012 from:

Generator: NCDOT/Stedman Hair Care

Originating at: 6809 Clinton Rd.  
Stedman, NC

EC Waste ID #: 021206

has been disposed of by Evo Corporation in a manner approved by the North Carolina Department of Environment and Natural Resources.



Signature

Thomas W. Hammett  
CEO  
Evo Corporation

---

## CERTIFICATE OF DISPOSAL

Evo Corporation does hereby certify that 730 gallons of non-hazardous contaminated water received on 02/14/2012 from:

Generator: NCDOT/Stedman Hair Care

Originating at: 6809 Clinton Rd.  
Stedman, NC

EC Waste ID #: 021206

has been disposed of by Evo Corporation in a manner approved by the North Carolina Department of Environment and Natural Resources.



Signature

Thomas W. Hammett  
CEO  
Evo Corporation



**NON-HAZARDOUS WASTE MANIFEST**

1. Generator ID Number

2. Page 1 of

3. Emergency Response Phone

4. Waste Tracking Number

5. Generator's Name and Mailing Address

Generator's Site Address (if different than mailing address)

NC DOT  
6009 CLAYTON RD. STEDMON

Generator's Phone:

6. Transporter 1 Company Name

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

**E S & J ENTERPRISES, INC.**  
**1555 HOLLAND RD. - AUTRYVILLE, NC 28318**

U.S. EPA ID Number

**SR0600085**

Facility's Phone: **(910) 587-5138**

9. Waste Shipping Name and Description

10. Containers

11. Total Quantity

12. Unit Wt./Vol.

No.

Type

1. **PETROLEUM CONTAMINATED SOIL**

LBS.

4320  
296 lbs

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name

Signature

Month Day Year

15. International Shipments  Import to U.S.  Export from U.S.

Port of entry/exit:

Transporter Signature (for exports only):

Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Signature

Month Day Year

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name

Signature

Month Day Year

Rosa Williams

Rosa Williams

12/14/12

GENERATOR  
INT'L  
TRANSPORTER  
DESIGNATED FACILITY

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator ID Number

2. Page 1 of

3. Emergency Response Phone

4. Waste Tracking Number

5. Generator's Name and Mailing Address

Generator's Site Address (if different than mailing address)

AK 607  
6805 Church St. Piedmont

Generator's Phone:

6. Transporter 1 Company Name

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

U.S. EPA ID Number

**E S & J ENTERPRISES, INC.**  
1555 HOLLAND RD. - AUTRYVILLE, NC 28318

**SR0600035**

Facility's Phone: **(910) 567-6138**

9. Waste Shipping Name and Description

10. Containers

11. Total Quantity

12. Unit Wt./Vol.

No. Type

1. **PETROLEUM CONTAMINATED SOIL**

LBS.

32,960

2.

16.48 Tons

3.

4.

13. Special Handling Instructions and Additional Information

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name

Signature

Month Day Year

15. International Shipments  Import to U.S.  Export from U.S.

Port of entry/exit:

Transporter Signature (for exports only):

Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Signature

Month Day Year

Mitch Queen

*Mitch Queen*

202 | 316

02 | 14 | 2012

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space  Quantity  Type  Residue  Partial Rejection  Full Rejection

Manifest Reference Number:

U.S. EPA ID Number

17b. Alternate Facility (or Generator)

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator. Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name

Signature

Month Day Year

Rick Wms

*Rick Wms*

12 | 14 | 12

16.48 TONS

ID 202  
GROSS 66660 lb INBOUND  
02/14/2012 01:45PM

ID 202  
GROSS 66660 lb RECALLED  
TARE 33700 lb  
NET 32960 lb  
02:11PM 02/14/2012



MEASUREMENT PROFESSIONALS SINCE 1939

6541-C Franz Warner Parkway • Whitsett, NC 27377  
Ph: (336) 292-0511 • Fax: (336) 294-9664

21.96 TONS

ID 208  
GROSS 75420 lb INBOUND  
02/14/2012 01:47PM

ID 208  
GROSS 75420 lb RECALLED  
TARE 31500 lb  
NET 43920 lb  
02:12PM 02/14/2012



MEASUREMENT PROFESSIONALS SINCE 1939

6541-C Franz Warner Parkway • Whitsett, NC 27377  
Ph: (336) 292-0511 • Fax: (336) 294-9664

# EVO CORPORATION

1703 Vargrave Street, Winston-Salem, NC 27107

www.evocorp.net

## NON-HAZARDOUS MATERIALS MANIFEST

Load #

Manifest No. **73593**

### GENERATOR INFORMATION

Generator: NCDOT/Stedman Hair Care Phone: 919-707-6870

Site Address: 6809 Clinton Road

City/State: Stedman, NC 28391

Contact: Terry Fox

### MATERIAL DESCRIPTION / QUANTITY / WEIGHT

Gross Weight (lbs): \_\_\_\_\_ Material: Water

Empty Weight (lbs): \_\_\_\_\_ Contaminant: Gas/Diesel/Heating Oil

Net Weight (lbs): \_\_\_\_\_

Quantity

**730**

Tons \_\_\_\_\_ Drums \_\_\_\_\_ Pails \_\_\_\_\_ Sacs \_\_\_\_\_ Yards \_\_\_\_\_ Other: Gal

### TRANSPORTER INFORMATION

Transporter: Evo Corporation

Phone: 336-725-5844

Truck #: 402

Contact: Tony Disher

As the transporter, I certify that the materials described above being shipped under this non-hazardous materials manifest are properly classified, packaged, labeled, secured and are in proper condition for transport in commerce under the applicable regulations governing transportation, and I hereby receive this material for delivery to the facility designate.

Driver Signature: 

Date: 2/14/12

### FACILITY INFORMATION

**021206**

Evo Project #: \_\_\_\_\_

EVO CORPORATION  
1703 Vargrave Street  
Winston-Salem, NC 27107

Phone: (336) 725-5844

Contact: Tony Disher

I certify that the carrier has delivered the materials described above to this facility, and I hereby accept this material for treatment and/or disposal in a manner that has been authorized by the State of North Carolina.

Facility Signature: 

Date: 02/14/12

White/Facility

Canary/Invoice

Goldenrod/Generator

Pink/Carrier

# EVO CORPORATION

1703 Vargrave Street, Winston-Salem, NC 27107

www.evocorp.net

## NON-HAZARDOUS MATERIALS MANIFEST

Load #

Manifest No. **73593**

### GENERATOR INFORMATION

Generator: NCDOT/Stedman Hair Care Phone: 919-707-6870

Site Address: 6809 Clinton Road

City/State: Stedman, NC 28391

Contact: Terry Fox

### MATERIAL DESCRIPTION / QUANTITY / WEIGHT

Gross Weight (lbs): \_\_\_\_\_ Material: Water

Empty Weight (lbs): \_\_\_\_\_ Contaminant: Gas/Diesel/Heating Oil

Net Weight (lbs): \_\_\_\_\_

Quantity

**730**

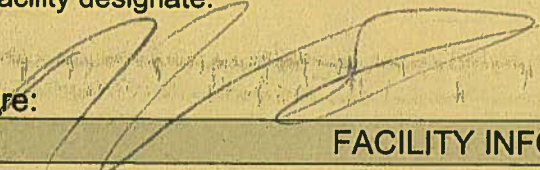
Tons Drums Pails Sacs Yards Other: **51**

### TRANSPORTER INFORMATION

Transporter: Evo Corporation Phone: 336-725-5844

Truck #: 402 Contact: Tony Disher

As the transporter, I certify that the materials described above being shipped under this non-hazardous materials manifest are properly classified, packaged, labeled, secured and are in proper condition for transport in commerce under the applicable regulations governing transportation, and I hereby receive this material for delivery to the facility designate.

Driver Signature:  Date: 2/14/12

### FACILITY INFORMATION

**021206**

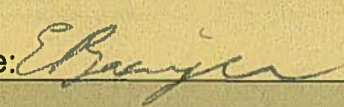
Evo Project #: \_\_\_\_\_

EVO CORPORATION  
1703 Vargrave Street  
Winston-Salem, NC 27107

Phone: (336) 725-5844

Contact: Tony Disher

I certify that the carrier has delivered the materials described above to this facility, and I hereby accept this material for treatment and/or disposal in a manner that has been authorized by the State of North Carolina.

Facility Signature:  Date: 02/14/12

White/Facility

Canary/Invoice

Goldenrod/Generator

Pink/Carrier

**APPENDIX D**  
**PHOTOGRAPHS**

**Parcel 78 – Jeffery W. Smith Property  
6809 Clinton Road – Stedman, NC  
February 14, 2012**



Looking West, UST #1 in background, UST #4 being removed.



Looking Northeast, UST #3 on far right, UST #2 being removed.

**Parcel 78 – Jeffery W. Smith Property  
6809 Clinton Road – Stedman, NC  
February 14, 2012**



Looking West across former UST #4 (foreground) and former UST #1 (background) locations.



Looking North across former UST #2 (left) and former UST #3 (right) locations.



**Parcel 78 – Jeffery W. Smith Property  
6809 Clinton Road – Stedman, NC  
February 14, 2012**



Looking West across backfilled UST #1 and UST #4 former locations.



Looking Northeast across backfilled UST #2 and UST #3 former locations.

**APPENDIX E**  
**LABORATORY ANALYTICAL REPORTS**  
**AND**  
**CHAIN-OF-CUSTODY DOCUMENTATION**

## Laboratory Report of Analysis

To: Ben Ashba  
RICHARD CATLIN & ASSOCIATES  
P.O. Box 10279  
Wilmington, NC 28404

Report Number: 31200396

Client Project: NCDOT Stedman Hair Care

Dear Ben Ashba,

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

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

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

Sincerely,  
SGS North America Inc.

*Barbara A. Hager*  
Business of Hager

Barbara A. Hager  
2012.02.22 15:07:33 -05'00'

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

Date

## Laboratory Qualifiers

### Report Definitions

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

### Qualifier Definitions

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

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

M1	Mis-identified peak
M2	Software did not integrate peak
M3	Incorrect baseline construction (i.e. not all of peak included; two peaks integrated as one)
M4	Pattern integration required (i.e. DRO, GRO, PCB, Toxaphene and Technical Chlordane)
M5	Other - Explained in case narrative

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



### Sample Summary

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
UST#1-W (6ft)	31200396001	02/14/2012 14:45	02/15/2012 12:20	Soil-Solid as dry weight
UST#1-E (6ft)	31200396002	02/14/2012 14:50	02/15/2012 12:20	Soil-Solid as dry weight
UST#2-N (6ft)	31200396003	02/14/2012 14:30	02/15/2012 12:20	Soil-Solid as dry weight
UST#2-S (6ft)	31200396004	02/14/2012 14:35	02/15/2012 12:20	Soil-Solid as dry weight
UST#3 (6ft)	31200396005	02/14/2012 14:40	02/15/2012 12:20	Soil-Solid as dry weight
UST#4-W (6ft)	31200396006	02/14/2012 14:55	02/15/2012 12:20	Soil-Solid as dry weight
UST#4-E (6ft)	31200396007	02/14/2012 15:00	02/15/2012 12:20	Soil-Solid as dry weight

## Results of UST#1-W (6ft)

Client Sample ID: **UST#1-W (6ft)**  
 Client Project ID: **NCDOT Stedman Hair Care**  
 Lab Sample ID: 31200396001-A  
 Lab Project ID: 31200396

Collection Date: 02/14/2012 14:45  
 Received Date: 02/15/2012 12:20  
 Matrix: Soil-Solid as dry weight  
 Solids (%): 83.90

## Results by SW-846 8015C GRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics (GRO)	30.5		3.38	3.38	mg/kg	1	02/16/2012 20:35
<b>Surrogates</b>							
4-Bromofluorobenzene	107			70.0-130	%	1	02/16/2012 20:35

## Batch Information

Analytical Batch: VGC1680  
 Analytical Method: SW-846 8015C GRO  
 Instrument: GC7  
 Analyst: MDY  
 Analytical Date/Time: 02/16/2012 20:35

Prep Batch: VXX2783  
 Prep Method: SW-846 5035  
 Prep Date/Time: 02/16/2012 10:25  
 Prep Initial Wt./Vol.: 7.06 g  
 Prep Extract Vol: 5 mL

## Results of UST#1-W (6ft)

Client Sample ID: **UST#1-W (6ft)**  
Client Project ID: **NCDOT Stedman Hair Care**  
Lab Sample ID: 31200396001-C  
Lab Project ID: 31200396

Collection Date: 02/14/2012 14:45  
Received Date: 02/15/2012 12:20  
Matrix: Soil-Solid as dry weight  
Solids (%): 83.90

## Results by SW-846 8015C DRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics (DRO)	11.7		7.02	7.02	mg/kg	1	02/16/2012 20:14

### Surrogates

o-Terphenyl	82.6			40.0-140	%	1	02/16/2012 20:14
-------------	------	--	--	----------	---	---	------------------

## Batch Information

Analytical Batch: **XGC1923**  
Analytical Method: **SW-846 8015C DRO**  
Instrument: **GC6**  
Analyst: **DTF**  
Analytical Date/Time: **02/16/2012 20:14**

Prep Batch: **XXX2241**  
Prep Method: **SW-846 3541**  
Prep Date/Time: **02/16/2012 10:16**  
Prep Initial Wt./Vol.: **33.97 g**  
Prep Extract Vol: **10 mL**



**Results of UST#1-E (6ft)**

Client Sample ID: **UST#1-E (6ft)**  
Client Project ID: **NCDOT Stedman Hair Care**  
Lab Sample ID: **31200396002-A**  
Lab Project ID: **31200396**

Collection Date: **02/14/2012 14:50**  
Received Date: **02/15/2012 12:20**  
Matrix: **Soil-Solid as dry weight**  
Solids (%): **84.60**

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

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics (GRO)	45.4		13.3	13.3	mg/kg	4	02/20/2012 12:56
<b>Surrogates</b>							
4-Bromofluorobenzene	100			70.0-130	%	4	02/20/2012 12:56

**Batch Information**

Analytical Batch: **VGC1686**  
Analytical Method: **SW-846 8015C GRO**  
Instrument: **GC7**  
Analyst: **MDY**  
Analytical Date/Time: **02/20/2012 12:56**

Prep Batch: **VXX2797**  
Prep Method: **SW-846 5035**  
Prep Date/Time: **02/20/2012 08:55**  
Prep Initial Wt./Vol.: **7.13 g**  
Prep Extract Vol: **5 mL**





**Results of UST#1-E (6ft)**

Client Sample ID: **UST#1-E (6ft)**  
Client Project ID: **NCDOT Stedman Hair Care**  
Lab Sample ID: 31200396002-C  
Lab Project ID: 31200396

Collection Date: 02/14/2012 14:50  
Received Date: 02/15/2012 12:20  
Matrix: Soil-Solid as dry weight  
Solids (%): 84.60

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

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics (DRO)	21.2		6.99	6.99	mg/kg	1	02/16/2012 20:42

**Surrogates**

o-Terphenyl	77.6			40.0-140	%	1	02/16/2012 20:42
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**Batch Information**

Analytical Batch: XGC1923  
Analytical Method: SW-846 8015C DRO  
Instrument: GC6  
Analyst: DTF  
Analytical Date/Time: 02/16/2012 20:42

Prep Batch: XXX2241  
Prep Method: SW-846 3541  
Prep Date/Time: 02/16/2012 10:16  
Prep Initial Wt./Vol.: 33.79 g  
Prep Extract Vol: 10 mL

## Results of UST#2-N (6ft)

Client Sample ID: **UST#2-N (6ft)**  
Client Project ID: **NCDOT Stedman Hair Care**  
Lab Sample ID: **31200396003-A**  
Lab Project ID: **31200396**

Collection Date: **02/14/2012 14:30**  
Received Date: **02/15/2012 12:20**  
Matrix: **Soil-Solid as dry weight**  
Solids (%): **81.90**

## Results by SW-846 8015C GRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics (GRO)	<b>78.0</b>		<b>17.4</b>	<b>17.4</b>	<b>mg/kg</b>	<b>5</b>	<b>02/20/2012 12:30</b>

### Surrogates

4-Bromofluorobenzene	<b>102</b>			<b>70.0-130</b>	<b>%</b>	<b>5</b>	<b>02/20/2012 12:30</b>
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## Batch Information

Analytical Batch: **VGC1686**  
Analytical Method: **SW-846 8015C GRO**  
Instrument: **GC7**  
Analyst: **MDY**  
Analytical Date/Time: **02/20/2012 12:30**

Prep Batch: **VXX2797**  
Prep Method: **SW-846 5035**  
Prep Date/Time: **02/20/2012 08:56**  
Prep Initial Wt./Vol.: **7.03 g**  
Prep Extract Vol: **5 mL**



**Results of UST#2-N (6ft)**

Client Sample ID: **UST#2-N (6ft)**  
Client Project ID: **NCDOT Stedman Hair Care**  
Lab Sample ID: 31200396003-C  
Lab Project ID: 31200396

Collection Date: 02/14/2012 14:30  
Received Date: 02/15/2012 12:20  
Matrix: Soil-Solid as dry weight  
Solids (%): 81.90

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

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics (DRO)	15.8		7.52	7.52	mg/kg	1	02/16/2012 21:10
<b>Surrogates</b>							
o-Terphenyl	70.0			40.0-140	%	1	02/16/2012 21:10

**Batch Information**

Analytical Batch: XGC1923  
Analytical Method: SW-846 8015C DRO  
Instrument: GC6  
Analyst: DTF  
Analytical Date/Time: 02/16/2012 21:10

Prep Batch: XXX2241  
Prep Method: SW-846 3541  
Prep Date/Time: 02/16/2012 10:16  
Prep Initial Wt./Vol.: 32.45 g  
Prep Extract Vol: 10 mL



**Results of UST#2-S (6ft)**

Client Sample ID: **UST#2-S (6ft)**  
Client Project ID: **NCDOT Stedman Hair Care**  
Lab Sample ID: 31200396004-A  
Lab Project ID: 31200396

Collection Date: 02/14/2012 14:35  
Received Date: 02/15/2012 12:20  
Matrix: Soil-Solid as dry weight  
Solids (%): 87.90

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

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics (GRO)	663		119	119	mg/kg	40	02/20/2012 12:04

**Surrogates**

4-Bromofluorobenzene	103			70.0-130	%	40	02/20/2012 12:04
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**Batch Information**

Analytical Batch: **VGC1686**  
Analytical Method: **SW-846 8015C GRO**  
Instrument: **GC7**  
Analyst: **MDY**  
Analytical Date/Time: **02/20/2012 12:04**

Prep Batch: **VXX2797**  
Prep Method: **SW-846 5035**  
Prep Date/Time: **02/20/2012 08:56**  
Prep Initial Wt./Vol.: **7.67 g**  
Prep Extract Vol: **5 mL**

## Results of UST#2-S (6ft)

Client Sample ID: **UST#2-S (6ft)**  
Client Project ID: **NCDOT Stedman Hair Care**  
Lab Sample ID: 31200396004-C  
Lab Project ID: 31200396

Collection Date: 02/14/2012 14:35  
Received Date: 02/15/2012 12:20  
Matrix: Soil-Solid as dry weight  
Solids (%): 87.90

## Results by SW-846 8015C DRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics (DRO)	98.1		6.92	6.92	mg/kg	1	02/16/2012 21:38
<b>Surrogates</b>							
o-Terphenyl	79.5			40.0-140	%	1	02/16/2012 21:38

## Batch Information

Analytical Batch: **XGC1923**  
Analytical Method: **SW-846 8015C DRO**  
Instrument: **GC6**  
Analyst: **DTF**  
Analytical Date/Time: **02/16/2012 21:38**

Prep Batch: **XXX2241**  
Prep Method: **SW-846 3541**  
Prep Date/Time: **02/16/2012 10:16**  
Prep Initial Wt./Vol.: **32.86 g**  
Prep Extract Vol: **10 mL**



**Results of UST#3 (6ft)**

Client Sample ID: **UST#3 (6ft)**  
Client Project ID: **NCDOT Stedman Hair Care**  
Lab Sample ID: 31200396005-A  
Lab Project ID: 31200396

Collection Date: 02/14/2012 14:40  
Received Date: 02/15/2012 12:20  
Matrix: Soil-Solid as dry weight  
Solids (%): 87.20

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

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics (GRO)	ND	U	3.31	3.31	mg/kg	1	02/20/2012 13:22

**Surrogates**

4-Bromofluorobenzene	102			70.0-130	%	1	02/20/2012 13:22
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**Batch Information**

Analytical Batch: **VGC1686**  
Analytical Method: **SW-846 8015C GRO**  
Instrument: **GC7**  
Analyst: **MDY**  
Analytical Date/Time: **02/20/2012 13:22**

Prep Batch: **VXX2797**  
Prep Method: **SW-846 5035**  
Prep Date/Time: **02/20/2012 08:56**  
Prep Initial Wt./Vol.: **6.93 g**  
Prep Extract Vol: **5 mL**

### Results of UST#3 (6ft)

Client Sample ID: **UST#3 (6ft)**  
 Client Project ID: **NCDOT Stedman Hair Care**  
 Lab Sample ID: 31200396005-C  
 Lab Project ID: 31200396

Collection Date: 02/14/2012 14:40  
 Received Date: 02/15/2012 12:20  
 Matrix: Soil-Solid as dry weight  
 Solids (%): 87.20

### Results by SW-846 8015C DRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics (DRO)	ND	U	7.15	7.15	mg/kg	1	02/16/2012 22:07

### Surrogates

o-Terphenyl	78.1			40.0-140	%	1	02/16/2012 22:07
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### Batch Information

Analytical Batch: **XGC1923**  
 Analytical Method: **SW-846 8015C DRO**  
 Instrument: **GC6**  
 Analyst: **DTF**  
 Analytical Date/Time: **02/16/2012 22:07**

Prep Batch: **XXX2241**  
 Prep Method: **SW-846 3541**  
 Prep Date/Time: **02/16/2012 10:16**  
 Prep Initial Wt./Vol.: **32.09 g**  
 Prep Extract Vol: **10 mL**



**Results of UST#4-W (6ft)**

Client Sample ID: **UST#4-W (6ft)**  
Client Project ID: **NCDOT Stedman Hair Care**  
Lab Sample ID: 31200396006-A  
Lab Project ID: 31200396

Collection Date: 02/14/2012 14:55  
Received Date: 02/15/2012 12:20  
Matrix: Soil-Solid as dry weight  
Solids (%): 84.20

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

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics (GRO)	ND	U	3.43	3.43	mg/kg	1	02/20/2012 13:49

**Surrogates**

4-Bromofluorobenzene	104			70.0-130	%	1	02/20/2012 13:49
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**Batch Information**

Analytical Batch: **VGC1686**  
Analytical Method: **SW-846 8015C GRO**  
Instrument: **GC7**  
Analyst: **MDY**  
Analytical Date/Time: **02/20/2012 13:49**

Prep Batch: **VXX2797**  
Prep Method: **SW-846 5035**  
Prep Date/Time: **02/20/2012 08:57**  
Prep Initial Wt./Vol.: **6.93 g**  
Prep Extract Vol: **5 mL**



## Results of UST#4-W (6ft)

Client Sample ID: **UST#4-W (6ft)**  
Client Project ID: **NCDOT Stedman Hair Care**  
Lab Sample ID: 31200396006-C  
Lab Project ID: 31200396

Collection Date: 02/14/2012 14:55  
Received Date: 02/15/2012 12:20  
Matrix: Soil-Solid as dry weight  
Solids (%): 84.20

## Results by SW-846 8015C DRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics (DRO)	ND	U	7.17	7.17	mg/kg	1	02/16/2012 22:35

### Surrogates

o-Terphenyl	80.8			40.0-140	%	1	02/16/2012 22:35
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## Batch Information

Analytical Batch: **XGC1923**  
Analytical Method: **SW-846 8015C DRO**  
Instrument: **GC6**  
Analyst: **DTF**  
Analytical Date/Time: **02/16/2012 22:35**

Prep Batch: **XXX2241**  
Prep Method: **SW-846 3541**  
Prep Date/Time: **02/16/2012 10:16**  
Prep Initial Wt./Vol.: **33.13 g**  
Prep Extract Vol: **10 mL**



**Results of UST#4-E (6ft)**

Client Sample ID: **UST#4-E (6ft)**  
Client Project ID: **NCDOT Stedman Hair Care**  
Lab Sample ID: 31200396007-A  
Lab Project ID: 31200396

Collection Date: 02/14/2012 15:00  
Received Date: 02/15/2012 12:20  
Matrix: Soil-Solid as dry weight  
Solids (%): 79.20

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

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics (GRO)	ND	U	3.79	3.79	mg/kg	1	02/20/2012 14:14
<b>Surrogates</b>							
4-Bromofluorobenzene	102			70.0-130	%	1	02/20/2012 14:14

**Batch Information**

Analytical Batch: **VGC1686**  
Analytical Method: **SW-846 8015C GRO**  
Instrument: **GC7**  
Analyst: **MDY**  
Analytical Date/Time: **02/20/2012 14:14**

Prep Batch: **VXX2797**  
Prep Method: **SW-846 5035**  
Prep Date/Time: **02/20/2012 08:57**  
Prep Initial Wt./Vol.: **6.67 g**  
Prep Extract Vol: **5 mL**

## Results of UST#4-E (6ft)

Client Sample ID: **UST#4-E (6ft)**  
Client Project ID: **NCDOT Stedman Hair Care**  
Lab Sample ID: 31200396007-C  
Lab Project ID: 31200396

Collection Date: 02/14/2012 15:00  
Received Date: 02/15/2012 12:20  
Matrix: Soil-Solid as dry weight  
Solids (%): 79.20

## Results by SW-846 8015C DRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics (DRO)	ND	U	7.52	7.52	mg/kg	1	02/16/2012 23:03

### Surrogates

o-Terphenyl	76.9			40.0-140	%	1	02/16/2012 23:03
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## Batch Information

Analytical Batch: **XGC1923**  
Analytical Method: **SW-846 8015C DRO**  
Instrument: **GC6**  
Analyst: **DTF**  
Analytical Date/Time: **02/16/2012 23:03**

Prep Batch: **XXX2241**  
Prep Method: **SW-846 3541**  
Prep Date/Time: **02/16/2012 10:16**  
Prep Initial Wt./Vol.: **33.59 g**  
Prep Extract Vol: **10 mL**



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<b>1</b> CLIENT: <u>CATLIN / NCDOT</u> CONTACT: <u>Ben Ashb@CATLIN</u> PHONE NO: <u>(910) 452-5861</u> PROJECT: <u>NCDOT Stadium Hair Care</u> SITE/PWSID#: <u>Parcel #78 Jeffrey Smith Property</u> REPORTS TO: <u>Ben@CATLIN</u> <u>ben.ashb@catlinusa.com</u> INVOICE TO: <u>NCDOT Geo Enviro</u> QUOTE #: <u>NCDOT Geo Enviro</u> <u>WBS: 34716.01</u> <u>TIP: R-2303A</u> FAX NO: <u>Cumberland County</u>					SGS Reference: <u>31200396</u>			PAGE <u>1</u> OF <u>1</u>	
<b>2</b>					CONTAINERS No SAMPLE TYPE Preservatives Used Analysis Required C= COMP G= GRAB <u>3</u> <u>GRO</u> <u>DRO</u> <u>meq</u> <u>100</u>	REMARKS <u>All samples likely HOT</u>			
LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX					
	<u>UST#1-W(6')</u>	<u>2.14.12</u>	<u>1445</u>	<u>SOIL</u>		<u>3</u>	<u>G</u>		
	<u>UST#1-E(6')</u>		<u>1450</u>						
	<u>UST#2-N(6')</u>		<u>1430</u>						
	<u>UST#2-S(6')</u>		<u>1435</u>						
	<u>UST#3(6')</u>		<u>1440</u>						
	<u>UST#4-W(6')</u>		<u>1455</u>						
	<u>UST#4-E(6')</u>		<u>1500</u>						
<b>5</b>					<b>4</b>				
Collected/Relinquished By: (1)	Date	Time	Received By:		Shipping Carrier:	Samples Received Cold? (Circle) YES NO			
<u>Ben Ash</u>	<u>2.15.12</u>	<u>1220</u>				Temperature °C: <u>1.7</u>			
Relinquished By: (2)	Date	Time	Received By:		Special Deliverable Requirements:	Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT			
					<u>Summary EDP</u>	<u>ABSENT</u>			
Relinquished By: (3)	Date	Time	Received By:		Special Instructions:				
Relinquished By: (4)	Date	Time	Received By:		Requested Turnaround Time:				
					<input type="checkbox"/> RUSH _____ Date Needed	<input checked="" type="checkbox"/> STD			

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