

FILE

AMTRAK

ADDITIONAL ENVIRONMENTAL

SITE ASSESSMENT

NCDOT PROJECT 9.908024P

LOTS 8 – 12 (MCKEITHEN PROPERTY)

CHARLOTTE, NORTH CAROLINA

S&ME PROJECT 1040-98-110



S&ME

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APR 28 1999

DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL UNIT

AMTRAK

**ADDITIONAL ENVIRONMENTAL
SITE ASSESSMENT
NCDOT PROJECT 9.908024P
LOTS 8 – 12 (MCKEITHEN PROPERTY)
CHARLOTTE, NORTH CAROLINA
S&ME PROJECT 1040-98-110**

Prepared for:

**NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL UNIT
Century Center
1020 Birch ridge drive
Raleigh, North Carolina 27610**

Prepared by:

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April 28, 1999

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April 28, 1999

North Carolina Dept. of Transportation
Geotechnical Unit
Century Center
1020 Birch Ridge Drive
Raleigh, North Carolina 27610

Attention: Ms. Eileen Fuchs

Reference: NCDOT – Amtrak
Additional Environmental Site Assessment
NCDOT Project 9.908024P
Lots 8 – 12 (Mallory R. McKeithen Property)
Charlotte, North Carolina
S&ME Project 1040-98-110

Dear Ms. Fuchs:

S&ME, Inc. (S&ME) has completed the Additional Environmental Site Assessment (ESA) work at the above referenced site. Soil and groundwater sampling was performed in an effort to evaluate the presence of possible contaminants associated with past activities at the property. Sampling locations were selected based on previous work conducted by S&ME during September 1998. The results indicate the presence of petroleum hydrocarbons in the soil at concentrations exceeding the state action limits of 10 milligrams per kilogram (mg/kg). However, no soil samples were detected above the Industrial/Commercial land use classification of the Maximum Soil Contaminant Concentrations (MSCCs) using EPA Methods 8260, 8270 and the EPH/VPH-MADEP. The results did not indicate the presence of contaminants in the groundwater in excess of the respective Gross Contamination Levels (GCL). The scope of work and the results are discussed in further detail below. In addition, portions of the October 19, 1998 Phase II Environmental Site Assessment report with conclusions and recommendations are attached.

SITE LOCATION

The site is located in Charlotte, Mecklenburg County, North Carolina (Figure 1). The specific properties are bounded by Smith Street to the southeast, West 9th Street to the northeast, railroad tracks to the northwest and include an area just southwest of west 7th Street (Figure 2). Figure 3 is a scaled map showing the locations of soil and groundwater samples conducted in February 1999.

SITE HISTORY

S&ME obtained Sanborn Fire Insurance Maps for the reference properties and adjacent properties. The years of coverage included 1885, 1890, 1896, 1900, 1905, 1911, 1929, 1950, 1953 and 1963. Based on our review of the maps, several areas of concern were identified on and adjacent to the property including:

- a former furniture warehouse and fertilizer mixing facility in the northeast corner;
- a former truck assembly facility in the northeast portion of the site;
- a former textile facility in the northwest portion of the site that included a painting area, a machine shop and a boiler (suspected to have used fuel oil);
- a former waste tank (of unknown use) located in the north-central portion of the site;
- a former lime and soda storage area near the railroad tracks;
- a former engine repair facility in the southwest portion of the site; and
- several former aboveground oil tanks located adjacent to and north of the property across West 9th Street.

A site reconnaissance by S&ME and an employee of the former bus maintenance facility indicated the past use of petroleum projects including diesel fuel underground storage

tanks, a used/waste oil underground storage tank and aboveground new oil tanks, with associated piping. The underground and aboveground tanks have been removed.

SITE ASSESSMENT WORK PREVIOUSLY CONDUCTED BY S&ME (SEP. 1998)

During September 1998, soil and groundwater samples were collected within or near these areas of concern. The samples were analyzed for volatile and semi-volatile organics using EPA Methods 8260 and 8270. Eight soil samples using a Geoprobe™ unit were collected from locations GP-1 through GP-8 (Figure 4). Organic vapor readings from the soil samples were taken using an Organic Vapor Analyzer (OVA), and five additional soil samples were collected to evaluate the extent of the suspected contaminants. The OVA measurements from the soil samples are provided in Table 1. Samples with the highest OVA reading per location (shaded in Table 1) were submitted for laboratory analysis.

Groundwater samples were collected at depths of 30 feet below land surface at locations GP-1, GP-3 and GP-8. These locations were estimated to be downgradient from the areas of concern. No contaminants were detected in the groundwater samples or soil samples from GP-9 or GP-13. The contaminants detected in the other soil samples are summarized in Table 2. Also included in Table 2 are the NCDENR MSCC and USEPA Risk Based Concentration (RBC) regulatory levels, where available. Detected values exceeding either of the regulatory levels are shaded and shown in bold font.

Contaminants at concentrations exceeding the available regulatory levels were detected in samples taken from GP-1, GP-3, GP-4, and GP-7. Other contaminants were also detected in GP-1 and GP-12 (acetonitrile) for which regulatory levels are not available. Of the contaminants detected, one of the six EPA Method SW-846 #8260 target analytes and 14 of the EPA Method SW-846 #8270 target analytes are indicative of medium to heavy weight petroleum hydrocarbons such as diesel, fuel oil, motor oil and hydraulic oil, etc. Other detected compounds are typically used in textile manufacturing, vulcanizing of rubber, preservation of foods,

fungicides and bactericides. Almost all of the non-petroleum contaminants were detected in the sample from GP-1, located in the area of a former textile manufacturing facility according to the Sanborn maps.

ADDITIONAL ENVIRONMENTAL SITE ASSESSMENT (FEBRUARY 1999)

Based on a reconnaissance of the site indicating the possibility of additional sources of contamination, soil and groundwater samples were collected to assess soil and groundwater quality in these areas of the site.

On January 18, 1999, Mr. Al Quarles (S&ME) met Mr. Harry Boss (former Trailways mechanic) to discuss the operations at the former Trailways Bus Maintenance Facility. Several areas of concern were identified. These are:

- 1) Floor Drains that collected wash water in the following areas that drained to the sanitary sewer. No assessment is proposed at these locations.
- 2) One or more Diesel Fuel Underground Storage Tank(s) (D-UST) located west of the fueling station. A depressed and patched area in the asphalt suggested the presence of former USTs.
- 3) A New Motor Oil Aboveground Storage Tank (AST) which was located near the maintenance pits. Aboveground lines ran from this tank to the pits. An underground line ran from the AST to the fueling station.
- 4) A Waste/Used Oil Underground Storage Tank (WO-UST) which was located near the maintenance pits. Oil from the buses was collected in pans that were in the pits, and then drained into the UST via underground lines. The size of the WO-UST is not known. A depressed and patched area in the asphalt indicated the presence of the former UST. In addition, three circular concrete patches approximately 8 inches in diameter were observed

along the outside perimeter of the patched area, and a portion of an apparent monitoring well manhole cover was observed in the center of the patched area, suggesting that some type of assessment had been performed previously. No data was available to S&ME concerning the possible assessment activities conducted previously.

DIESEL FUEL UNDERGROUND STORAGE TANKS (D-UST)

An area of approximately 25 feet by 15 feet shows evidence of patched asphalt with slight depressions in several areas. Based on the condition of the asphalt patch and its proximity to the fueling station, S&ME suspects that one or more diesel fuel USTs were located in this area.

Four soil samples (D-1 through D-4) and one groundwater sample (D-3A) were collected from this area (Figure 3). Boring logs for these samples are included in Appendix I. The samples were collected using Geoprobe™ methods. A 10-inch diameter circular cutout in the concrete pad near the fueling station suggested the presence of a UST. However, our assessment (hand auger and electromagnetic survey) did not indicate the presence of a UST. A hand auger soil sample (HA-1) was collected from this location at a depth of 7 feet. Soil samples D-1 through D-4 were collected to depths of up to 12 feet. The samples were submitted to Chemical and Environmental Technology (CET) and analyzed for Total Petroleum Hydrocarbons (TPH) using EPA Methods 8015-3550/5030. In addition, two soil samples (D-5 and D-6) from depths of up to 3 feet were collected along the product lines. The two samples were also analyzed for TPH in accordance with EPA Method 8015-3550/5030.

The samples were screened in the field using a Foxboro Toxic Vapor Analyzer (TVA) to identify the possible presence of volatile organics (Table 3). Based on TVA readings and the presence of petroleum odors, additional soil samples [D-3A (8'-12'), D-5A (4'-6') and D-5A (8'-10')] were collected. The additional samples were collected to evaluate the possible extent of suspected contaminants. Samples with the highest TVA reading per location were submitted to CET for

laboratory analyses. The samples were analyzed using MADEP-VPH/EPH, EPA Methods SW-846 #8260 and #8270 including the 10 largest Tentatively Identified Compounds (TICs).

In addition, groundwater samples from geoprobe locations D-3A and D-5A were collected and analyzed using EPA Methods #602 and #625 plus TICs and method MADEP-VPH. Only D-3A was analyzed for MADEP-EPH. The water samples were obtained to evaluate groundwater quality in the areas of suspected soil contamination.

Soil Analytical Results Near Areas of Suspected Diesel USTs

Laboratory results indicate that petroleum hydrocarbons were detected in sample HA-1 and D-5 at concentrations of 335 mg/kg and 264 mg/kg, respectively. Petroleum hydrocarbons were detected in sample D-5 using EPA Method #8015-5030. The state action limits for gas and diesel is 10 mg/kg. No petroleum hydrocarbons were detected in the other samples obtained (D-1, D-2, D-3, D-4 and D-6).

Laboratory reports further indicate that several compounds were detected in soil sample D-5A from 4-6 feet and from 8-10 feet. However, these compounds did not exceed the Industrial/Commercial MSCCs using EPA SW-846 Methods #8260 and #8270 and MADEP VPH/EPH. The depth to groundwater was approximately 15 feet below land surface at this location. Laboratory results are summarized in Table 4 and included in Appendix II.

Groundwater Analytical Results Near Areas of Suspected Diesel USTs

Laboratory reports indicate that three parameters (C5-C8 Alkanes, C9-C12 Alkanes and C9-C10 Aromatics) in D-5A and one parameter (C9-C18 Alkanes) in D-3A were detected using MADEP-VPH and MADEP-EPH Methods, respectively. No compounds were detected in D-3A using SW-846 Method #8021 and MADEP-VPH. Ethylbenzene and total xylene were detected in D-5A but did not exceed the 15A NCAC 2L groundwater quality standards or Gross

Contamination Levels (GCL) using EPA Method #8021. TICs in D-3A and D-5A were detected at concentrations of 30 micrograms per liter ($\mu\text{g}/\text{L}$) and 38 $\mu\text{g}/\text{L}$, respectively. No compounds were detected above the laboratory detection limit in any of the samples using SW-846 Method #625. Laboratory results are summarized in Table 5 and included in Appendix III.

NEW MOTOR OIL ABOVEGROUND STORAGE TANK (NO-AST)

A New Motor Oil AST was located near the maintenance pits. Above ground lines ran from this tank to the pits. An underground line ran from the AST to the fueling station. S&ME collected five soil samples (NO-1, NO-3, NO-4, NO-5A and NO-6) from depths of up to three feet along the underground line. The samples were submitted to CET and analyzed for TPH in accordance with EPA SW-846 Method #8015-3550.

The samples were screened in the field using a TVA to evaluate the presence of volatile organics. Based on TVA readings and the presence of petroleum odors, additional soil samples from NO-5A at a depth of 7 feet and NO-5A at a depth range of 10-12 feet were collected. The additional samples were obtained in an effort to evaluate the extent of suspected contaminants at the site. Samples with the highest TVA reading per location were submitted to CET for laboratory analyses using SW-846 EPA Methods #8260 (or #8021) and #8270 including TICs, and MADEP Method VPH/EPH. In addition, a groundwater sample was obtained from NO-5A. The sample was also submitted to CET for laboratory analyses using EPA SW-846 Methods #8021 and #625 including TICs, and MADEP Methods VPH/EPH. The sample was obtained to evaluate groundwater quality in the areas where soil contamination was suspected.

Soil Analytical Results Near New Oil AST

Petroleum hydrocarbons using EPA SW-846 Method #8015/3550 were detected in samples NO-1 (43 mg/kg) and NO-6 (107 mg/kg). No petroleum hydrocarbons were detected in the other samples (NO-3, NO-4 or NO-5A) using this method. The NCDENR action limits for diesel is 10 mg/kg.

Laboratory reports for NO-5A (7-foot sample depth) indicate that naphthalene was detected above the S-G MSCCs but was below the Residential or Industrial/Commercial MSCCs. Other compounds were detected in NO-5A (7-foot sample depth) but did not exceed the Residential or Industrial/Commercial MSCCs. No compounds were detected in the other NO-5A (10 to 12-foot depth) sample. Laboratory results are summarized in Table 4 and included in Appendix IV.

Groundwater Analytical Results New Oil AST

One parameter (C9-C18 Alkanes) was detected in NO-5A using MADEP Method EPH. No compounds were detected in NO-5A using SW-846 Method #8021 or MADEP Method VPH. TICs were detected in NO-5A at a concentration of 18 µg/L. No compounds were detected above the detection limits using EPA Method 625. Laboratory results are summarized in Table 3 and included in Appendix V.

WASTE/USED OIL UNDERGROUND STORAGE TANK (WO-UST)

A Waste/Used Oil UST was located near the maintenance pits. Oil from the buses was collected in pans located in the pits, and then drained into the UST via underground lines. The size of the WO-UST is unknown and the tank has been removed. Four soil samples (WO-1 through WO-4) were collected from depths of up to 8 feet using the Geoprobe™ Unit. The samples were submitted to CET for laboratory analyses using TPH in accordance with EPA Method 8015/3550 and metals (chromium and lead). In addition, a groundwater sample (WO-4W) was collected and analyzed using EPA SW-846 Methods #8260 and #8270.

Soil Analytical Results Near the Waste Oil UST

Petroleum hydrocarbons were detected in WO-1 (158 mg/kg), WO-2 (389 mg/kg), WO-3 (94.5 mg/kg) and WO-4S (148 mg/kg) at concentrations above the NC DENR action limits for diesel (10 mg/kg). Chromium and lead were also detected in these samples but did not exceed the

Industrial/Commercial MSCCs. Laboratory results for these samples are summarized in Table 4 and included in Appendix VI.

Groundwater analytical Results near Waste Oil AST

Laboratory reports for Method 8021 indicate that chloroform (at 0.7 µg/L) and 1,2-dichloroethane (at 0.5 µg/L) in WO-4W were detected at concentrations above the 2L Standards. Other compounds were detected but did not exceed the 2L Standards. No compounds were detected at concentrations that exceed the Gross Contamination Levels. TICs were detected in WO-4W at a concentration of 18 µg/L. No compounds were detected above the laboratory detection limit using EPA Method 625. Laboratory results are summarized in Table 5 and included in Appendix VII.

COMPOSITE SOIL SAMPLING

A composite soil sample labeled TCLP-1 was obtained from GP-7 (1'-2'), GP-1 (2'-4') and GP-3 (8'-9') using the Geoprobe™ Unit. The purpose of this sample was to evaluate contaminant concentrations relative to the EPA Hazardous Waste limits. The samples were submitted for laboratory analyses for organics using EPA SW-846 Methods #8260 and #8270 and for RCRA Metals, following TCLP protocol. Laboratory reports indicate that mercury, lead and barium were detected in this sample but did not exceed the regulatory levels. Therefore, the soil, if removed, should not be considered to be a hazardous waste. Laboratory results are summarized in Table 6 and included in Appendix VIII.

WATER SUPPLY WELL SURVEY

S&ME performed a water well survey on March 31, 1999, by observing each of the properties within 1500 feet of the site and reviewing the City of Charlotte water use map. Now water supply wells were identified. Survey results indicate that the surrounding properties consist of

businesses and commercial areas (predominantly east and west of the site) and single family residences (predominantly south of the site) as shown in Figure 5. The Utility Map included in this report illustrates the location of these properties. The site and several surrounding properties are supplied public water by the Charlotte-Mecklenburg Utility Department.

CONCLUSIONS

For the purpose of conclusions and recommendations, the site can be segregated into two areas. One area in the southern portion of the site includes the former Trailways bus maintenance facility or UST Area that included the use of petroleum products. The northern portion or Non-UST Area of the site includes previous commercial and industrial operations. Impacted soils were identified in both areas, while groundwater impact was only identified in the bus maintenance facility area. Due to the source of the impacted soil and groundwater, the remediation of the areas are handled differently by the NCDENR. Specific conclusions and recommendations for each area are discussed below.

Bus Maintenance Facility (UST Area)

Based on the comments itemized below, S&ME believes the site will be classified by the NCDENR as **LOW RISK** and that the site should receive a **NO FURTHER ACTION** status by the NCDENR. Soils removed from these areas during future development of the site should be handled as petroleum impacted soils and in accordance with state regulations.

- a) No potential receptors in use were identified within 1,500 feet of the site. No surface water bodies or water supply wells were identified within 500 feet of the site.
- b) Petroleum hydrocarbon concentrations in the soil were detected but did not exceed the Industrial/Commercial Concentrations. Soil samples collected from GP-1, GP-3, GH-4 and GP-7 in September 1998, contained contaminants that exceeded the Residential MSCCs but not the Industrial/Commercial Concentrations.

- c) The depth to groundwater on February 1999 was approximately 15.0 feet below land surface.
- d) Groundwater samples collected from WO-4W, D-3A, D-5A and NO-5A collected in February 1999 did not contain hydrocarbons above the Gross Contamination Levels established by the state.
- e) The area of the former USTs is covered with asphalt, limiting the downward infiltration of precipitation through the vadose zone.

Northern Former Industrial/Commercial Area (Non-UST Area)

Several compounds were detected in the soil samples at four locations at concentrations above listed regulatory levels. Remediation of these soils is likely to be required by the NC DENR. Based on the low permeability of the clayey soils and the semi-volatile and non-volatile nature of most of the compounds, in-situ remediation methods do not appear to be cost-effective, timely or feasible methods. Excavation and off-site disposal is likely the best-suited remedial option. The preparation of a Soil-Only Corrective Action Plan is recommended.

Based on the depth of the soil samples, OVA readings, and the analytical results, the areas and volumes of impacted soil above regulatory levels are estimated below. Note that these estimates are based on the samples collected and analyzed. Contaminant concentrations may vary between sampling locations and depths. In addition, the presence or absence of contaminants in areas not sampled is unknown.

<u>Samples in Area</u>	<u>Area (m²)</u>	<u>Depth (m)</u>	<u>Volume (m³)</u>
GP-1	130	3.7	480
GP-3 & GP-4	280	3.1	870
GP-7	200	1.9	380

S&ME appreciates the opportunity to provide these services to you on this project. If you have any questions concerning this report, please call us 704/523-4726.

Sincerely,

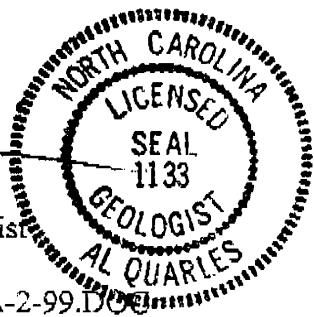
S&ME, Inc.



Gary Birk, P.E.
Senior Engineer



Al Quarles, L.G.
Senior Hydrogeologist



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TABLE 1
SOIL FIELD SCREENING DATA

PHASE II ESA - NCDOT AMTRAK
NCDOT PROJECT 9.908024P
CHARLOTTE, NORTH CAROLINA
S&ME PROJECT 1040-98-110

Sample Depth (m)		Sample ID and OVA Reading (ppm)												
From	To	GP-1	GP-2	GP-3	GP-4	GP-5	GP-6	GP-7	GP-8	GP-9	GP-10	GP-11	GP-12	GP-13
0.00	0.61	90	0	30	3	0	NR	44	0.8	0	0	0	4	0
0.61	1.22	110	0	>1000	5	0.2	NR	4	1	1	4	0	10	0
1.22	1.83	52	10	NR	0	0.8	38	0	0.4	1	36	0	13	4
1.83	2.44	18	0	>1000	0	7	120	0	0.4	3	110	2	13	7
2.44	3.05	36	0	> 1000	0	10	26	NR	0.2	5	120	1	40	6
3.05	3.66	16	1	12	1	110	30	NR	0.2	2	16	0	38	2
3.66	4.27	7	1	8	0	NS	12	26	NS	NS	0	0	24	NS
4.27	4.88	5	0	7	0	NS	16	3	NS	NS	0	0	30	NS
4.88	5.49	3	NS	2	0	NS	30	NS	NS	NS	0	0	32	NS
Ground elevation (m)		222.4	223.7	222.8	223.0	222.6	222.6	223.1	222.4	222.4	223.0	222.4	222.9	

Notes:

m : meter

Ground elevations estimated from City of Charlotte Topographic Maps

OVA : Organic Vapor Analyzer (Ioxboro Model 128, Flame Ionization Detector)

ppm : Parts Per Million

NR : No Recovery

NS : Not Sampled

Shaded and Bold values indicate samples for laboratory analysis

TABLE 2

**SOIL QUALITY DATA SUMMARY
FROM NON-LST AREAS**
PHASE II ESA - NCDOT AMTRAK
NCDOT PROJECT 9.908024P
CHARLOTTE, NORTH CAROLINA
S&ME PROJECT 1040-98-110

Sample ID	Sample Date	Regulatory Level		GP-1	GP-2	GP-3	GP-4	GP-5	GP-6	GP-7	GP-8	GP-9	GP-10	GP-11	GP-12	GP-13	
		NCDENR															
		SG	Res	Rcs	Ind												
EPA Method 8260																	
Acetone	2.81	1560	7800	200000	---	0.0383	---	0.0398	0.0277	0.0431	0.108	---	---	---	0.0468	---	
Acetonitrile	NRL	94	470	12000	---	---	---	---	---	---	---	---	---	---	0.0891	---	
2-Butanone (MEK)	0.69	9400	47000	1200000	---	---	---	---	---	0.0132	---	---	---	0.0065	---	---	
Carbon Disulfide	4.94	1560	7800	200000	---	---	---	---	---	---	---	0.0221	---	---	---	---	
Methylene Chloride	0.022	85	85	760	0.708	---	0.795	---	---	---	---	---	---	---	---	---	
Naphthalene	0.58	63	NRL	NRL	0.866	---	1.09	---	---	0.0277	0.0142	---	---	---	---	---	
TOTAL 8260					1.574	0.0383	1.885	0.0398	0.0277	0.0431	0.1489	0.0142	---	0.0221	---	0.1424	---
EPA Method 8270																	
Acenaphthene	8	940	4700	120000	2.82	---	5.46	---	---	---	---	---	---	---	---	---	---
Acenaphthylene	11	469	NRL	NRL	0.795	---	---	---	---	---	---	---	---	---	---	---	---
4-Aminobiphenyl	NRL	1100	NRL	NRL	0.917	---	---	---	---	---	---	---	---	---	---	---	---
Anthracene	995	4600	23000	610000	0.685	---	0.409	---	0.409	---	0.479	---	---	---	---	---	---
Benzoic Acid	NRL	62000	310000	8200000	0.577	---	---	---	---	---	---	---	---	---	---	---	---
Benzo(a)anthracene	0.34	0.88	0.87	7.8	1.43	---	9.29	1.42	---	1.02	---	---	---	---	---	---	---
Benzo(b&k)fluoranthene	1	0.88	0.87	7.8	2.87	---	14.9	2.23	---	1.21	---	---	---	---	---	---	---
Benzo(g,h,i)pyrene	6720	469	NRL	NRL	1.8	---	7.47	1.09	---	0.695	---	---	---	---	---	---	---
Benzo(a)pyrene	0.091	0.088	0.087	0.78	1.55	---	6.9	1.25	---	0.842	---	---	---	---	---	---	---
bis(2-Chloroethoxy)methane	NRL	NRL	NRL	NRL	0.546	---	---	---	---	---	---	---	---	---	---	---	---
1-Chloronaphthalene	NRL	NRL	NRL	NRL	0.567	---	---	---	---	---	---	---	---	---	---	---	---
2-Chloronaphthalene	NRL	1260	6300	160000	0.496	---	---	---	---	---	---	---	---	---	---	---	---
4-Chlorophenylphenylether	NRL	NRL	NRL	NRL	0.932	---	---	---	---	---	---	---	---	---	---	---	---
Chrysene	38	88	8.7	780	1.93	---	13.2	1.31	---	1.06	---	---	---	---	---	---	---
Dibenz(a,h)anthracene	0.17	0.088	0.087	0.78	0.517	---	---	---	---	---	---	---	---	---	---	---	---
Dibenzofuran	NRL	62	310	8200	1.01	---	---	---	---	---	---	---	---	---	---	---	---
4,6-Dinitro-2-methylphenol	NRL	NRL	7.8	200	0.55	---	---	---	---	---	---	---	---	---	---	---	---
2,4-Dinitrophenol	NRL	32	160	4100	0.57	---	---	---	---	---	---	---	---	---	---	---	---
2,4-Dinitrotoluene	NRL	15.6	78	2000	1.12	---	---	---	---	---	---	---	---	---	---	---	---
Diphenylamine	NRL	400	2000	51000	1.51	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 2

**SOIL QUALITY DATA SUMMARY
FROM NON-UST AREAS
PHASE II ESA - NCDOT AMTRAK
NCDOT PROJECT 9.908024P
CHARLOTTE, NORTH CAROLINA
S&ME PROJECT 1040-98-110**

Sample ID	Sample Date	Regulatory Level				GP-1	GP-2	GP-3	GP-4	GP-5	GP-6	GP-7	GP-8	GP-9	GP-10	GP-11	GP-12	GP-13														
		NCDENR		EPA RBC																												
		S.G	Res	Res	Ind																											
Fluoranthene	276	620	3100	82000	3.77	15.7	2.54	---	0.566	1.84	---	---	0.459	---	---	---	---	---														
Fluorene	44	620	3100	82000	2.19	---	---	---	---	---	---	---	---	---	---	---	---	---	---													
Indeno[1,2,3-c,d]pyrene	3	0.88	0.87	78	1.44	---	6.82	0.887	---	0.524	---	---	---	---	---	---	---	---	---													
Isophorone	NRI	670	670	6000	1.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---													
2-Methylnaphthalene	3	63	1600	41000	3.27	---	---	---	---	---	---	---	---	---	---	---	---	---	---													
Naphthalene	0.58	63	1600	41000	0.773	---	---	---	---	---	---	---	---	---	---	---	---	---	---													
1-Naphthylamine	NRL	NRL	NRL	NRL	0.772	---	---	---	---	---	---	---	---	---	---	---	---	---	---													
2-Naphthylamine	NRL	0.0049	NRL	NRL	0.79	---	---	---	---	---	---	---	---	---	---	---	---	---	---													
2-Nitroaniline	NRL	0.94	NRL	NRL	0.982	---	---	---	---	---	---	---	---	---	---	---	---	---	---													
3-Nitroaniline	NRL	46	NRL	NRL	0.753	---	---	---	---	---	---	---	---	---	---	---	---	---	---													
4-Nitroaniline	NRL	46	NRL	NRL	0.877	---	---	---	---	---	---	---	---	---	---	---	---	---	---													
2-Nitrophenol	NRL	NRL	NRL	NRL	0.488	---	---	---	---	---	---	---	---	---	---	---	---	---	---													
4-Nitrophenol	NRL	960	630	16000	0.663	---	---	---	---	---	---	---	---	---	---	---	---	---	---													
N-Nitroso-di-butylamine	NRL	0.12	0.12	1.1	3.45	---	---	---	---	---	---	---	---	---	---	---	---	---	---													
N-Nitrosodiphenylamine	NRL	130	130	1200	0.917	---	---	---	---	---	---	---	---	---	---	---	---	---	---													
N-Nitrosopiperidine**	NRL	0.3	0.3	2.7	0.533	---	---	---	---	---	---	---	---	---	---	---	---	---	---													
Phenacetin	NRL	NRL	NRL	1.43	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---													
Phenathrene	60	469	NRL	NRL	4.35	---	12.5	1.97	---	0.463	1.97	---	---	---	---	---	---	---	---													
Pyrene	286	469	2300	61000	3.09	---	23.7	2.17	---	0.559	2.4	---	---	---	---	---	---	---	---													
2,4,5-Trichlorophenol	NRL	1560	7800	200000	0.98	---	---	---	---	---	---	15.94	15.276	1.588	12.04	---	---	0.459	---	---												
TOTAL 8270					57.149	---																										

Notes:

m : meter

--- : Below laboratory quantitation limit

Other parameters not listed were not detected using EPA Method 8260/8270

NCDENR MSCC : Maximum Soil Contaminant Concentration Soil-to-Groundwater Value

EPA RBC : EPA Risk Based Concentration Soil-to-Groundwater Value

Shaded and bold values indicate exceedance of lower of the NCDENR MSCC or EPA RBC value

** : Nitrosopyrrolidine?

NRL : No Reported Level

TABLE 3
SUMMARY OF TOXIC VAPOR ANALYZER READINGS

NCDOT AMTRAK STATION
 CHARLOTTE, NORTH CAROLINA
 S&ME PROJECT NO. 1040-98-110

SAMPLE LOCATION	DEPTH (meters)	DATE	PID (PPM)	FID (PPM)	SUBMITTED (Y/N)
HA-1	0.3 to 0.6	2/15/99	6	57	N
	0.6 to 0.9	2/15/99	0.2	17	Y
	0.9 to 1.5	2/15/99	0.2	20	N
	1.5 to 2.1	2/15/99	0.4	17	N
D-1	0.3 to 1.2	2/15/99	0.5	0.3	N
	1.2 to 2.4	2/15/99	0.5	0.5	N
	2.4 to 3.7	2/15/99	0.5	0.7	Y
D-2	0.3 to 1.2	2/15/99	1.8	2	N
	1.2 to 2.4	2/15/99	1.9	1.2	N
	2.4 to 3.7	2/15/99	1	1.1	Y
D-3	0.3 to 1.2	2/15/99	0.6	6.2	N
	1.2 to 2.4	2/15/99	0.4	5.7	N
	2.4 to 3.7	2/15/99	0.2	30	Y
D-3A	0.3 to 1.2	2/17/99	0.5	8	N
	1.2 to 2.4	2/17/99	0.25	3	N
	2.4 to 3.7	2/17/99	0.25	3	Y
D-4	0.3 to 1.2	2/15/99	1.5	9.5	N
	1.2 to 2.4	2/15/99	1.2	4.1	N
	2.4 to 3.7	2/15/99	2	10	Y
D-5	0.3 to 0.9	2/15/99	50	470	Y
D-5A	0.3 to 0.6	2/17/99	----	----	N
	0.6 to 1.2	2/17/99	10	85	N
	1.2 to 1.8	2/17/99	95	1050	Y
	1.8 to 2.4	2/17/99	90	950	N
	2.4 to 3.0	2/17/99	40	370	Y
	3.0 to 3.7	2/17/99	1	9	N
D-6	0.3 to 0.6	2/15/99	24	220	N
	0.6 to 0.9	2/15/99	25	240	Y
NO-1	0.3 to 0.9	2/16/99	----	----	Y
NO-2	AR	2/16/99	----	----	N
NO-3	0.3 to 0.9	2/16/99	3	2	Y
NO-4	0.3 to 0.9	2/16/99	1	15	Y
NO-5	AR	2/16/99	----	----	N
NO-5A	0.3 to 0.9	2/16/99	0.5	3	Y
	1.2 to 1.8	2/17/99	12	250	N
	1.8 to 2.1	2/17/99	14	225	Y
	2.4 to 2.7	2/17/99	6	51	N
	2.7 to 3.0	2/17/99	2	15	N
	3.0 to 3.7	2/17/99	2	14	Y
NO-6	0.3 to 0.9	2/15/99	3	97	Y
WO-1	0.3 to 1.2	2/16/99	103	4	N
	1.2 to 2.4	2/16/99	101	12	Y
WO-2	0.3 to 1.2	2/16/99	363	1.58	N
	1.2 to 2.4	2/16/99	380	2	Y
WO-3	0.3 to 1.2	2/16/99	35	42	N
	1.2 to 2.4	2/16/99	15	68	Y
WO-4S	0.3 to 0.9	2/16/99	2	10	N
	1.2 to 2.4	2/16/99	0.5	4	N
	2.4 to 3.7	2/16/99	0.25	8	Y
GP-1*	0.6 to 1.2	2/17/99	9	57	Y
GP-3*	0.3 to 1.2	2/17/99	0.2	0.9	Y
	1.2 to 2.1	2/17/99	0.2	0.8	Y
	2.4 to 2.7	2/17/99	0.2	0.75	Y
GP-7*	0.3 to 0.6	2/17/99	0.25	19	Y

Notes:

Submitted = Denotes if soil sample was submitted for laboratory analysis

Method = Denotes method of sample acquisition AR = Auger Refusal

* = A composite soil sample was obtained from these locations for TCLP analysis.

TABLE 4

**QUALITY DATA SUMMARY
FROM UST AREAS
SE II ESA - NCDOT AMTRAK
CDOT PROJECT 9.908024P
RLOTTE, NORTH CAROLINA
ME PROJECT 1040-98-110**

Sample ID	Regulatory Levels		HA-1	D-1	D-2	D-3	D-3A	D-4	D-5	D-5A	D-5A
Sample Date			2/15/99	2/15/99	2/15/99	2/15/99	2/17/99	2/15/99	2/15/99	2/17/99	2/17/99
Depth (m) (from) (to)			0.30	2.44	2.44	2.44	2.44	2.44	0.30	1.22	2.44
TPH	Reporting Limit										
3550 ("diesel")	10		335	---	---	---		---	264		
5030 ("gasoline")	10		---	---	---	---		---	13.8		
EPH-MADEP	S-G	Ind/Comm									
C9-C18 Aliphatics	424.799	245.280					---		---	472	
C19-C36 Aliphatics	1mm	> 100%					---		---	---	---
C11-C22 Aromatics	206	12,264					---		---	72	
VPH-MADEP	S-G	Ind/Comm									
C5-C8 Aliphatics	72	24,528					---		15.5	44.5	
C9-C12 Aliphatics	3,255	245.280					---		75.6	182	
C9-C10 Aromatics	34	12,264					---		43.9	99.2	
METALS	S-G	Ind/Comm									
Chromium	27	2,000									
Lead	270	400									
EPA Method 8021	S-G	Ind/Comm									
Ethylbenzene	0.24	40000					---		0.112	0.106	
Total Xylenes	5	200000					---		0.135	0.187	
n-Butylbenzene	4	4088					---		0.728	0.571	
sec-Butylbenzene	3	4088					---		0.889	0.556	
tert-Butylbenzene	3	4088					---		0.194	0.345	
Isopropylbenzene	2	40880					---		0.27	0.337	
p-Isopropyltoluene	NRL	NRL					---		0.329	0.195	
n-Propylbenzene	2	4088					---		0.133	0.176	
1,2,4-Trimethylbenzene	8	20440					---		0.136	0.244	
1,3,5-Trimethylbenzene	7	20440					---		0.132	0.261	
Naphthalene	0.58	1635					---		1.15	0.584	
TOTAL 8021											
EPA Method 8270	S-G	Ind/Comm									
2-Methylnaphthalene	3	1635					---		---	0.3	
Phenanthrene	60	12264					---		---	0.65	
TICs (total of top 10)	NRL	NRL					---		19.03	20.73	

Notes:

All concentrations in milligrams per kilogram

--- Below laboratory quantitation limit

Parameters not listed < detection limit

MSCC : Maximum Soil Contaminant Concentration

S-G: Soil to Groundwater

Ind/Comm : Industrial/Commercial

NRL : No Reported Level

TABLE 4**QUALITY DATA SUMMARY****FROM UST AREAS****SE II ESA - NCDOT AMTRAK****CDOT PROJECT 9.908024P****RLOTTE, NORTH CAROLINA****ME PROJECT 1040-98-110**

Sample ID	Regulatory Levels		D-6	NO-1	NO-3	NO-4	NO-5A	NO-5A	NO-5A
Sample Date			2/15/99	2/16/99	2/16/99	2/16/99	2/16/99	2/17/99	2/17/99
Depth (m) (from)			0.30	0.30	0.30	0.30	0.30	1.83	3.05
(to)			0.91	0.91	0.91	0.91	0.91	2.13	3.66
TPH	Reporting Limit								
3550 ("diesel")	10		---	43	---	---	---		
5030 ("gasoline")	10		---						
EPH-MADEP	S-G	Ind/Comm							
C9-C18 Aliphatics	424.799	245.280					102	---	
C19-C36 Aliphatics	1mm	> 100%					---	---	
C11-C22 Aromatics	206	12,264					38	---	
VPH-MADEP	S-G	Ind/Comm							
C5-C8 Aliphatics	72	24.528					---	---	
C9-C12 Aliphatics	3.255	245.280					---	---	
C9-C10 Aromatics	34	12,264					---	---	
METALS	S-G	Ind/Comm							
Chromium	27	2,000							
Lead	270	400							
EPA Method 8021	S-G	Ind/Comm							
Ethylbenzene	0.24	40000					---	---	
Total Xylenes	5	200000					---	---	
n-Butylbenzene	4	4088					0.296	---	
sec-Butylbenzene	3	4088					0.471	---	
tert-Butylbenzene	3	4088					0.202	---	
Isopropylbenzene	2	40880					0.127	---	
p-Isopropyltoluene	NRL	NRL					0.125	---	
n-Propylbenzene	2	4088					0.054	---	
1,2,4-Trimethylbenzene	8	20440					0.095	---	
1,3,5-Trimethylbenzene	7	20440					0.127	---	
Naphthalene	0.58	1635					0.866	---	
TOTAL 8021									
EPA Method 8270	S-G	Ind/Comm							
2-Methylnaphthalene	3	1635					---	---	
Phenathrene	60	12264					---	0.29	---
TICs (total of top 10)	NRL	NRL					22.46	0.2	---

Notes:

All concentrations in milligrams per kilogram

--- Below laboratory quantitation limit

Parameters not listed < detection limit

MSCC : Maximum Soil Contaminant Concentration

S-G: Soil to Groundwater

Ind/Comm : Industrial/Commercial

NRL : No Reported Level

TABLE 4

**QUALITY DATA SUMMARY
FROM UST AREAS
SE II ESA - NCDOT AMTRAK
CDOT PROJECT 9.908024P
RLOTTE, NORTH CAROLINA
ME PROJECT 1040-98-110**

Sample ID	Regulatory Levels		NO-6	WO-1	WO-2	WO-3	WO-4S
Sample Date			2/15/99	2/16/99	2/16/99	2/16/99	2/16/99
Depth (m) (from)			0.30	1.22	1.22	1.22	2.44
(to)			0.91	2.44	2.44	2.44	3.66
TPH	Reporting Limit						
3550 ("diesel")	10		107	158	389	94.5	148
5030 ("gasoline")	10		---				
EPH-MADEP	S-G	Ind/Comm					
C9-C18 Aliphatics	424.799	245.280					
C19-C36 Aliphatics	Imm	> 100%					
C11-C22 Aromatics	206	12.264					
VPH-MADEP	S-G	Ind/Comm					
C5-C8 Aliphatics	72	24.528					
C9-C12 Aliphatics	3.255	245.280					
C9-C10 Aromatics	34	12.264					
METALS	S-G	Ind/Comm					
Chromium	27	2.000		17.5	168	25.7	137
Lead	270	400		11.8	7.1	0.9	16.6
EPA Method 8021	S-G	Ind/Comm					
Ethylbenzene	0.24	40000					
Total Xylenes	5	200000					
n-Butylbenzene	4	4088					
sec-Butylbenzene	3	4088					
tert-Butylbenzene	3	4088					
Isopropylbenzene	2	40880					
p-Isopropyltoluene	NRL	NRL					
n-Propylbenzene	2	4088					
1,2,4-Trimethylbenzene	8	20440					
1,3,5-Trimethylbenzene	7	20440					
Naphthalene	0.58	1635					
TOTAL 8021							
EPA Method 8270	S-G	Ind/Comm					
2-MethylNaphthalene	3	1635					
Phenathrene	60	12264					
TICs (total of top 10)	NRL	NRL					

Notes:

All concentrations in milligrams per kilogram

--- : Below laboratory quantitation limit

Parameters not listed < detection limit

MSCC : Maximum Soil Contaminant Concentration

S-G: Soil to Groundwater

Ind/Comm : Industrial/Commercial

NRL : No Reported Level

TABLE 5
SUMMARY OF WATER QUALITY DATA

**PHASE II ESA - NCDOT AMTRAK
 NCDOT PROJECT 9.908024P
 CHARLOTTE, NORTH CROLINA
 S&ME PROJECT 1354-98-541**

COMPOUND Collection Date	WO-4W 2/16/99	D-3A 2/17/99	D-5A 2/18/99	NO-5A 2/18/99	GCL µg/L	2L STAND. µg/L	10 x 2L STAND. µg/L
EPH-MADEP							
C9-C18 Alkanes		135		135	-	-	-
C19-C36 Alkanes		<100		<100	-	-	-
C11-C22 Aromatics		<100		<100	-	-	-
VPH-MADEP							
C5-C8 Alkanes		<100	92 J	<100	-	-	-
C9-C12 Akanes		<100	658	<100	-	-	-
C9-C10 Aromatics		<100	374	<100	-	-	-
METHOD 8021							
Ethylbenzene	---	---	1	---	29,000	29	290
Total Xylenes	0.5	---	1.8	---	87,500	530	5,300
Chloroform	0.7	---	---	---	-	0.19	1.9
1,1-Dichloroethane	1.8	---	---	---	700,000	700	7000
1,2-Dichloroethane	0.5	---	---	---	380	0.38	3.8
cis-1,2-Dichloroethene	1.9	---	---	---	70,000	70	700
Methylene Chloride	1.0	---	---	---	5,000	5	50
Naphthalene	0.6	---	---	---	15,500	21	210
Method 625	---	---	---	---	-	-	-
TICs (Total of Top 10)	18	30	38	18	-	-	-

NOTES:

Compounds not listed were not detected above laboratory detection limits

µg/L - Micrograms per liter

GCL - Gross Contamination Levels

- : Not Listed

J : Estimated Concentration

TABLE 6

**SOIL TCLP DATA SUMMARY
FROM NON-UST AREAS
PHASE II ESA - NCDOT AMTRAK
NCDOT PROJECT 9.908024P
CHARLOTTE, NORTH CAROLINA
S&ME PROJECT 1040-98-110**

Sample ID		Regulatory	TCLP-1
Sample Date	Unit	Level	2/17/98
SEMI-VOLATILES			
Cresols	mg/L	200	<0.05
2,4-Dinitrotoluene	mg/L	0.13	<0.012
Hexachlorobenzene	mg/L	0.13	<0.01
Hexachlorobutadiene	mg/L	0.5	<0.05
Hexachloroethane	mg/L	3	<0.05
Nitrobenzene	mg/L	2	<0.05
Pentachlorophenol	mg/L	100	<0.25
Pyridine	mg/L	5	<0.25
2,4,5-Trichlorophenol	mg/L	400	<0.25
2,4,6-Trichlorophenol	mg/L	2	<0.10
VOLATILES			
Benzene	mg/L	0.5	<0.005
Carbon Tetrachloride	mg/L	0.5	<0.005
Chlorobenzene	mg/L	100	<0.005
Chloroform	mg/L	6	<0.005
1,4-Dichlorobenzene	mg/L	7.5	<0.005
1,2-Dichloroethane	mg/L	0.5	<0.005
1,1-Dichloroethene	mg/L	0.7	<0.005
Tetrachloroethene	mg/L	0.7	<0.005
Trichloroethene	mg/L	0.5	<0.005
Vinyl Chloride	mg/L	0.2	<0.01
Methyl ether ketone	mg/L	200	<0.05
Percent Solids	%	N/A	87.7
Corrosivity (as pH)	SU	N/A	8.06
Cynide in solid	mg/kg	N/A	<0.178
Sulfide	mg/kg	N/A	<2.4
Flashpoint	°C	N/A	>90
REACTIVITY			
Hydrogen cyanide from waste	mg/kg	N/A	<0.178
Hydrogen sulfide from waste	mg/kg	N/A	<2.4

TABLE 6

**SOIL TCLP DATA SUMMARY
FROM NON-UST AREAS
PHASE II ESA - NCDOT AMTRAK
NCDOT PROJECT 9.908024P
CHARLOTTE, NORTH CAROLINA
S&ME PROJECT 1040-98-110**

Sample ID		Regulatory	TCLP-1
Sample Date	Unit	Level	2/17/98
PESTICIDES			
Chlordane	mg/L	0.03	<0.01
Endrin	mg/L	0.02	<0.01
Heptachlor	mg/L	0.008	<0.01
Lindane	mg/L	0.4	<0.01
Methoxychlor	mg/L	10	<0.01
Toxaphene	mg/L	0.5	<0.01
HERBICIDES			
2,4-D	mg/L	10	<0.001
Silvex	mg/L	1	<0.001
METALS			
Arsenic	mg/L	5	<0.1
Barium	mg/L	100	0.9
Cadmium	mg/L	1	<0.005
Chromium	mg/L	5	0.005
Lead	mg/L	5	0.1
Mercury	mg/L	0.2	0.0002
Selenium	mg/L	1	<0.1
Silver	mg/L	5	<0.005

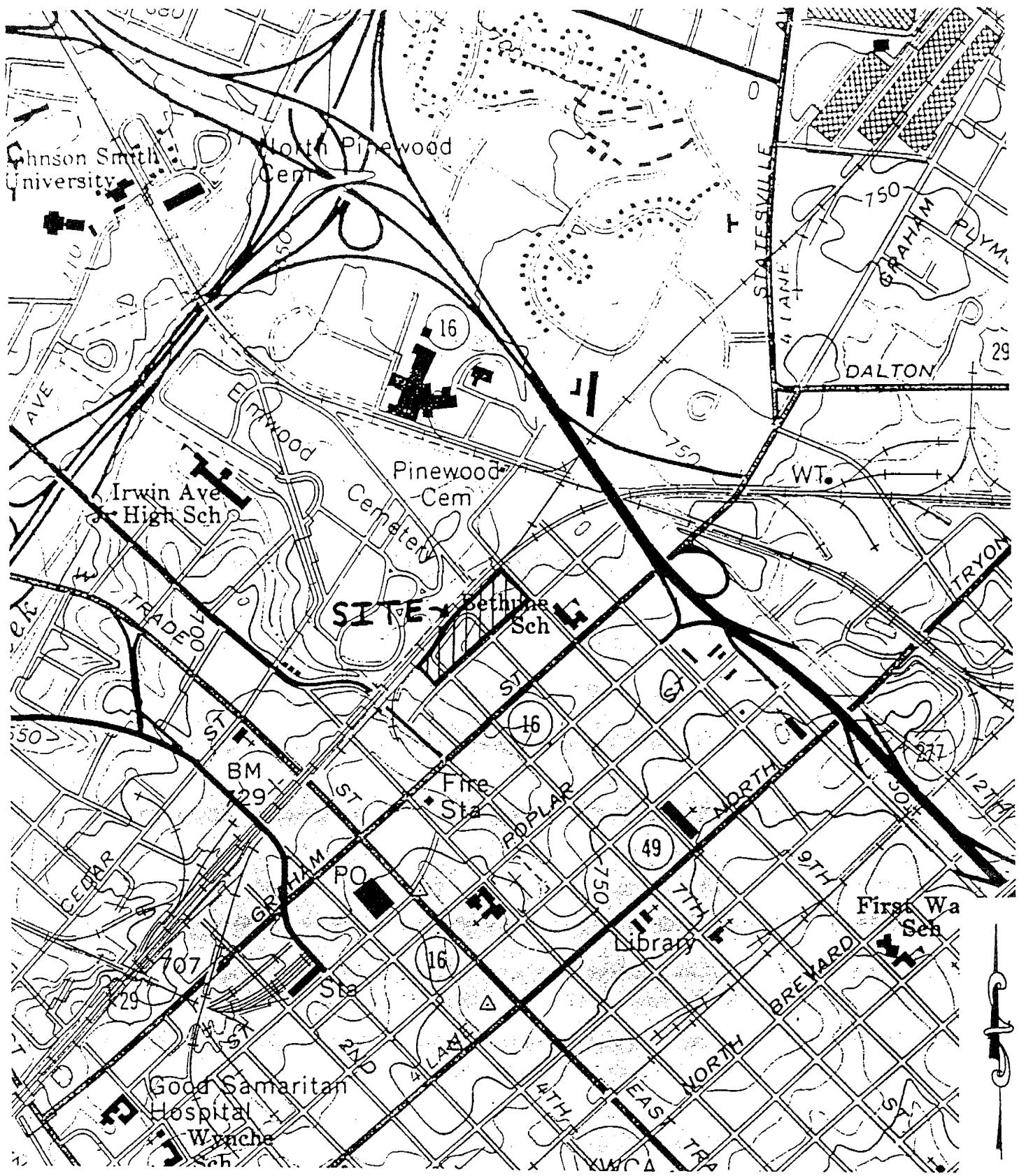
Notes:

mg/kg : milligrams per kilogram

mg/L : milligrams per liter

°C : Degrees Celsius

SU : Standard Units



1

.5

0

ELEVATIONS IN FEET

SCALE IN KILOMETERS

NCDOT PROJECT 9.908024P

SCALE: AS SHOWN
 CHECKED BY:
 DRAWN BY: WAQ.
 DATE: 10/12/98



S&ME
 ENVIRONMENTAL SERVICES
 ENGINEERING • TESTING

AREA MAP

NCDOT - AMTRAK STATION
 CHARLOTTE, NORTH CAROLINA

JOB NO:

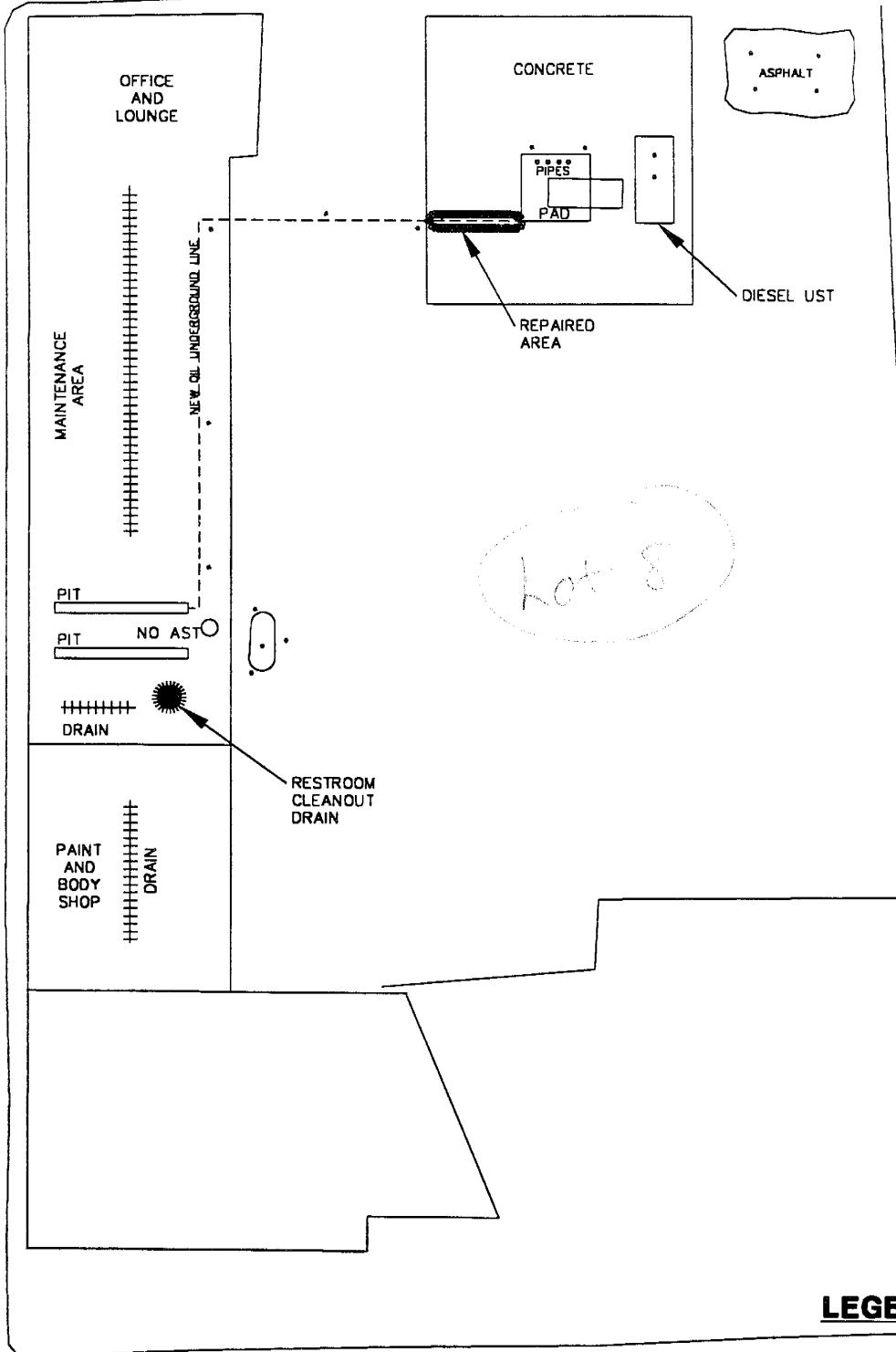
1040-98-110

FIGURE NO.

1

WEST 8TH STREET

SMITH STREET



LEGEND

WEST 8TH STREET
GRAPHIC SCALE



- | | |
|----|---------------|
| NO | NEW MOTOR OIL |
| WO | WASTE OIL |
| D | DIESEL |

SCALE: AS SHOWN

CHECKED BY: WAQ

DRAWN BY: MFP

DATE: 3-3-99



S&ME
ENVIRONMENTAL SERVICES
ENGINEERING • TESTING

**SITE LOCATION
MAP**

NCDOT - AMTRAK STATION
CHARLOTTE, NORTH CAROLINA

JOB NO:

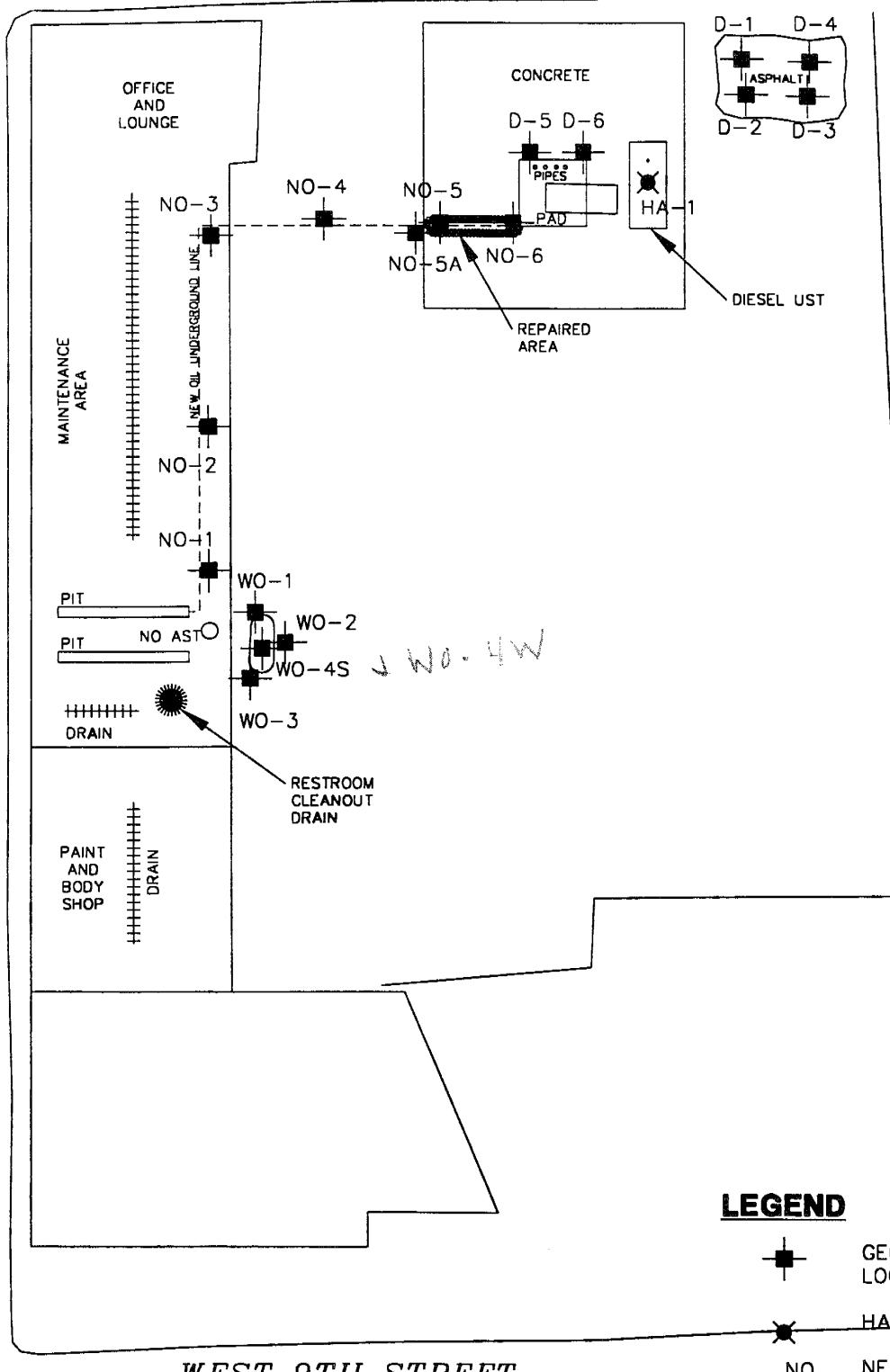
1040-98-110A

FIGURE NO.

2

WEST 8TH STREET

SMITH STREET

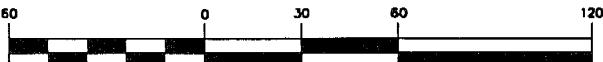


LEGEND

■	GEOPROBE SAMPLE LOCATION
●	HAND AUGER LOCATION
NO	NEW MOTOR OIL
WO	WASTE OIL
D	DIESEL

WEST 8TH STREET

GRAPHIC SCALE



(IN FEET)

SCALE:	AS SHOWN
CHECKED BY:	WAQ
DRAWN BY:	MFP
DATE:	3-3-99

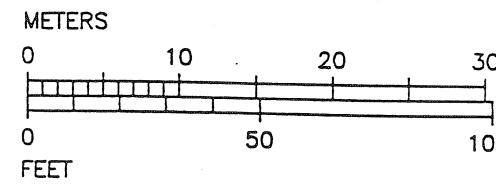
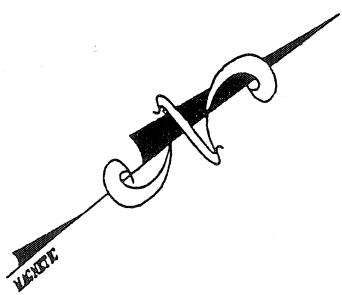
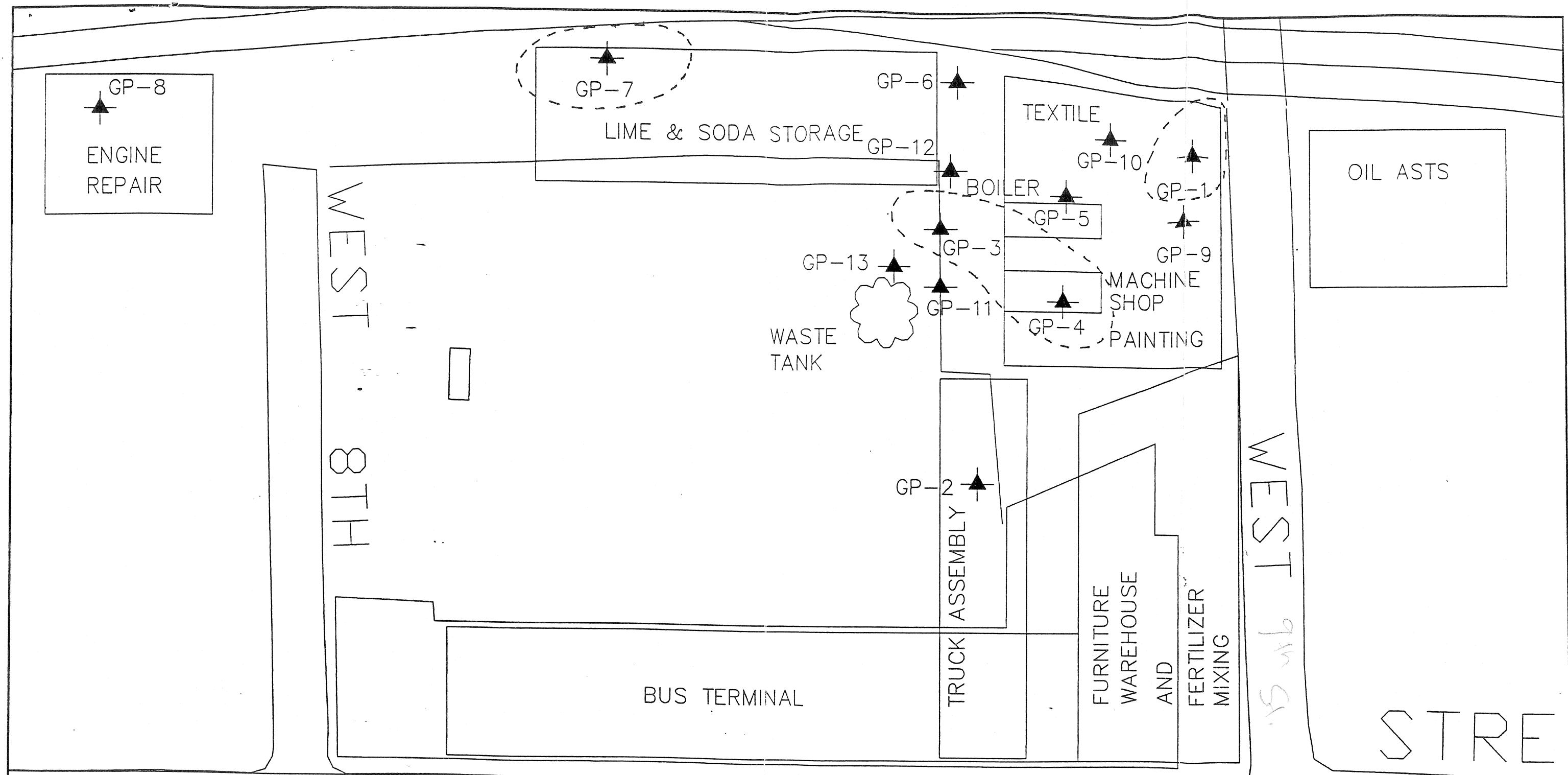


**SAMPLING LOCATIONS
(FEBRUARY 1999)**
NCDOT - AMTRAK STATION
CHARLOTTE, NORTH CAROLINA

JOB NO: 1040-98-110A

FIGURE NO.

3



GEOPROBE SAMPLE LOCATION

AREA OF CONCERN
FROM SANBORN MAP

NCDOT Project 9.908024



S&ME

ENVIRONMENTAL SERVICES
ENGINEERING • TESTING

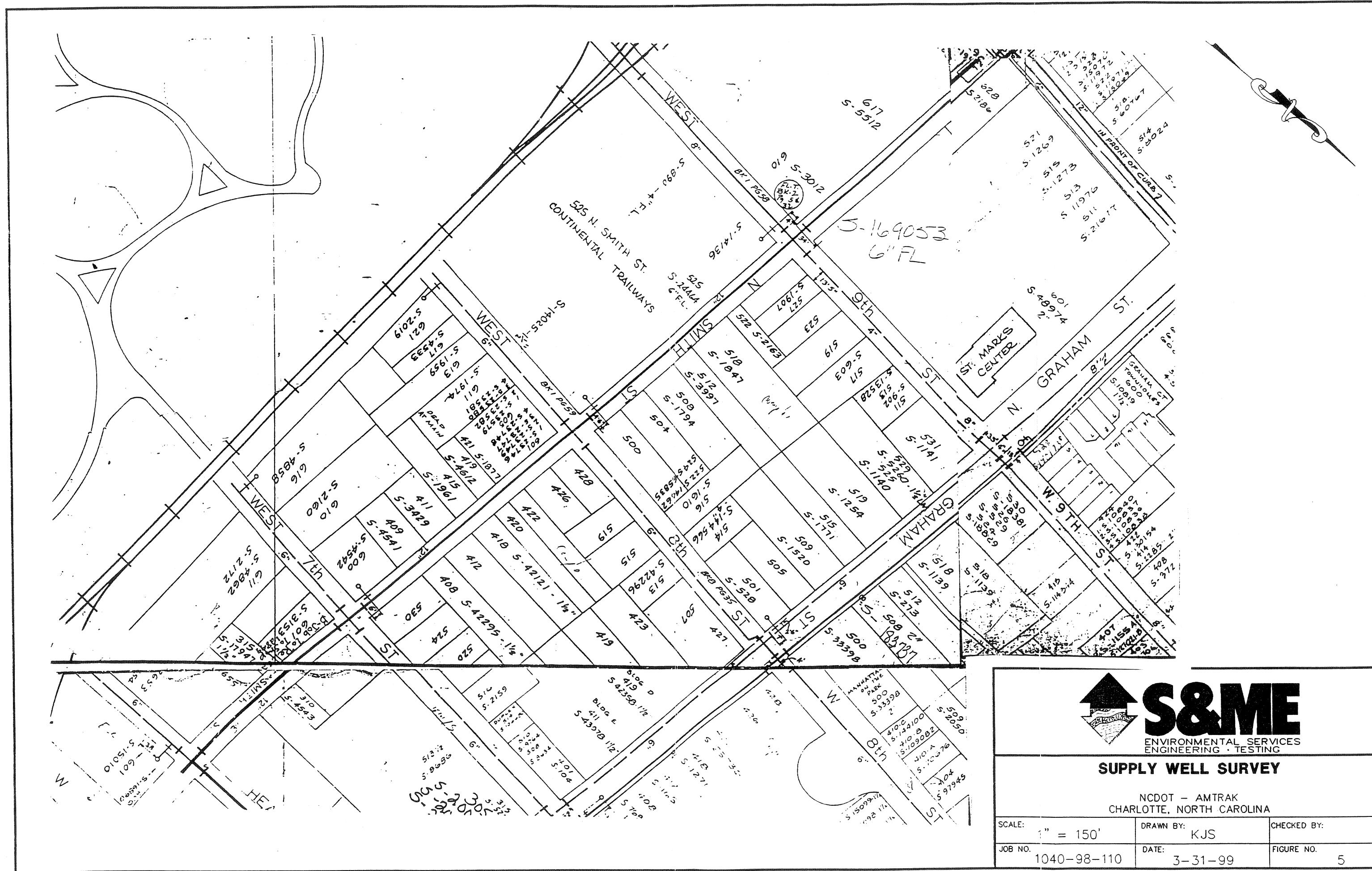
SAMPLING LOCATIONS

(September 1998)

NCDOT - AMTRAK

CHARLOTTE, NORTH CAROLINA

SCALE: AS SHOWN	DRAWN BY: WAQ	CHECKED BY:
JOB NO. 1040-98-110	DATE: 3/31/99	FIGURE NO. 4



Appendix I

Boring Logs

PROJECT:

**NCDOT-Amtrak Station
Charlotte, North Carolina**

WELL LOG**D-1**

PROJECT NO.:	1040-98-110	ELEVATION:	ft. NGVD	NOTES: A soil sample from 8-12 feet below ground surface was submitted for TPH 3550 and TPH 5030 analyses.			
LOGGED BY:	HFK	BORING DEPTH:	12 FEET				
DATE DRILLED:	2-15-99	WATER LEVEL:					
DRILLING METHOD:	1" Rod	DRILL RIG:	Geoprobe				
DEPTH (ft)	GRAPHIC LOG	Description & Remarks	SAMPLE NUMBER	SAMPLE	OVN (ppm)	SPR	ELEV.
0		CONCRETE					
1		Gravel					
2		Dark brown micaceous sandy silty CLAY					
5		Tan brown to yellow, micaceous, sandy silty CLAY	GP-01		0.3		
7							
8		Tan to dark brown, micaceous, fine, clayey silty SAND (wet)	GP-02		0.5		
10							
12							
15							
20		Termination Of Boring At 12.0 Feet	GP-03		0.7		

PROJECT:

NCDOT-Amtrak Station
Charlotte, North Carolina

WELL LOG**D-2**

PROJECT NO.: 1040-98-110		ELEVATION: ft. NGVD	NOTES: A soil sample from 8-12 feet below ground surface was submitted for TPH 3550 and TPH 5030 analyses.				
LOGGED BY:	HFK	BORING DEPTH: 12 FEET					
DATE DRILLED:	2-15-99	WATER LEVEL:					
DRILLING METHOD:	1" Rod	DRILL RIG: Geoprobe					
DEPTH (ft)	GRAPHIC LOG	Description & Remarks	SAMPLE NUMBER	SAMPLE	OVM (ppm)	SPR	ELEV.
0		CONCRETE					
1		Gravel					
2		Dark brown, sandy silty CLAY, soft					
5		Tan brown sandy silty CLAY	GP-01		2.0		
7		Tan brown, fine, sandy silty CLAY	GP-02		1.2		
10							
12							
15							
20		Termination Of Boring At 12.0 Feet	GP-03		1.1		

PROJECT:

NCDOT-Amtrak Station
Charlotte, North Carolina

WELL LOG

D-3

PROJECT NO.: 1040-98-110	ELEVATION: ft. NGVD	NOTES: A soil sample from 8-12 feet below ground surface was submitted for TPH 3550 and TPH 5030 analyses.			
LOGGED BY: HFK	BORING DEPTH: 12 FEET				
DATE DRILLED: 2-15-99	WATER LEVEL:				
DRILLING METHOD: 1" Rod	DRILL RIG: Geoprobe				
DEPTH (ft)	GRAPHIC LOG	Description & Remarks	SAMPLE NUMBER	SAMPLE	OVM (ppm)
0		CONCRETE			
0.5		Gravel			
1.0		Tan to yellow sandy silty CLAY			
1.5		Black to red sandy clayey SILT			
2.0		Tan fine clayey sandy SILT			
2.5		Dark gray sandy with fragments	GP-01	6.2	
3.0		Yellow to orange fine sandy clayey SILT			
4.0		Dark green fine sandy silty CLAY, stiff			
5.0			GP-02	5.7	
6.0		Tan to yellow fine sandy clayey SILT			
7.0			GP-03	3.0	
8.0					
9.0					
10.0					
11.0					
12.0		Termination Of Boring At 12.0 Feet			
13.0					
14.0					
15.0					
16.0					
17.0					
18.0					
19.0					
20.0					

PROJECT:

NCDOT-Amtrak Station
Charlotte, North Carolina

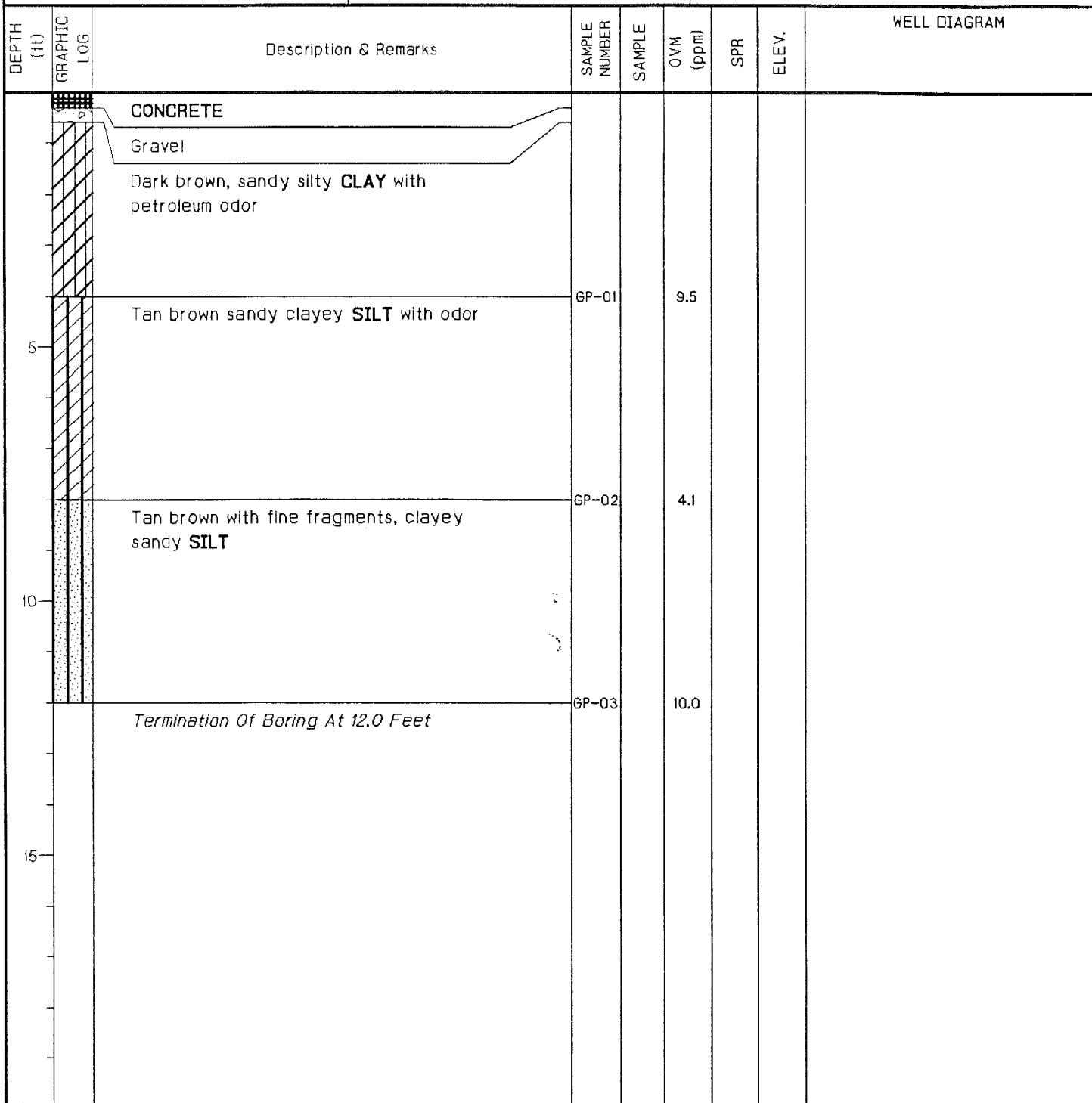
WELL LOG

D-4

PROJECT NO. : 1040-98-110	ELEVATION: ft. NGVD
LOGGED BY: HFK	BORING DEPTH: 12 FEET
DATE DRILLED: 2-15-99	WATER LEVEL:
DRILLING METHOD: 1" Rod	DRILL RIG: Geoprobe

NOTES:

A soil sample from 8-12 feet below ground surface was submitted for TPH 3550 and TPH 5030 analyses.



PROJECT:

NCDOT-Amtrak Station
Charlotte, North Carolina

WELL LOG**D-5**

PROJECT NO.: 1040-98-110

ELEVATION: ft. NGVD

LOGGED BY: HFK

BORING DEPTH: 3 FEET

DATE DRILLED: 2-15-99

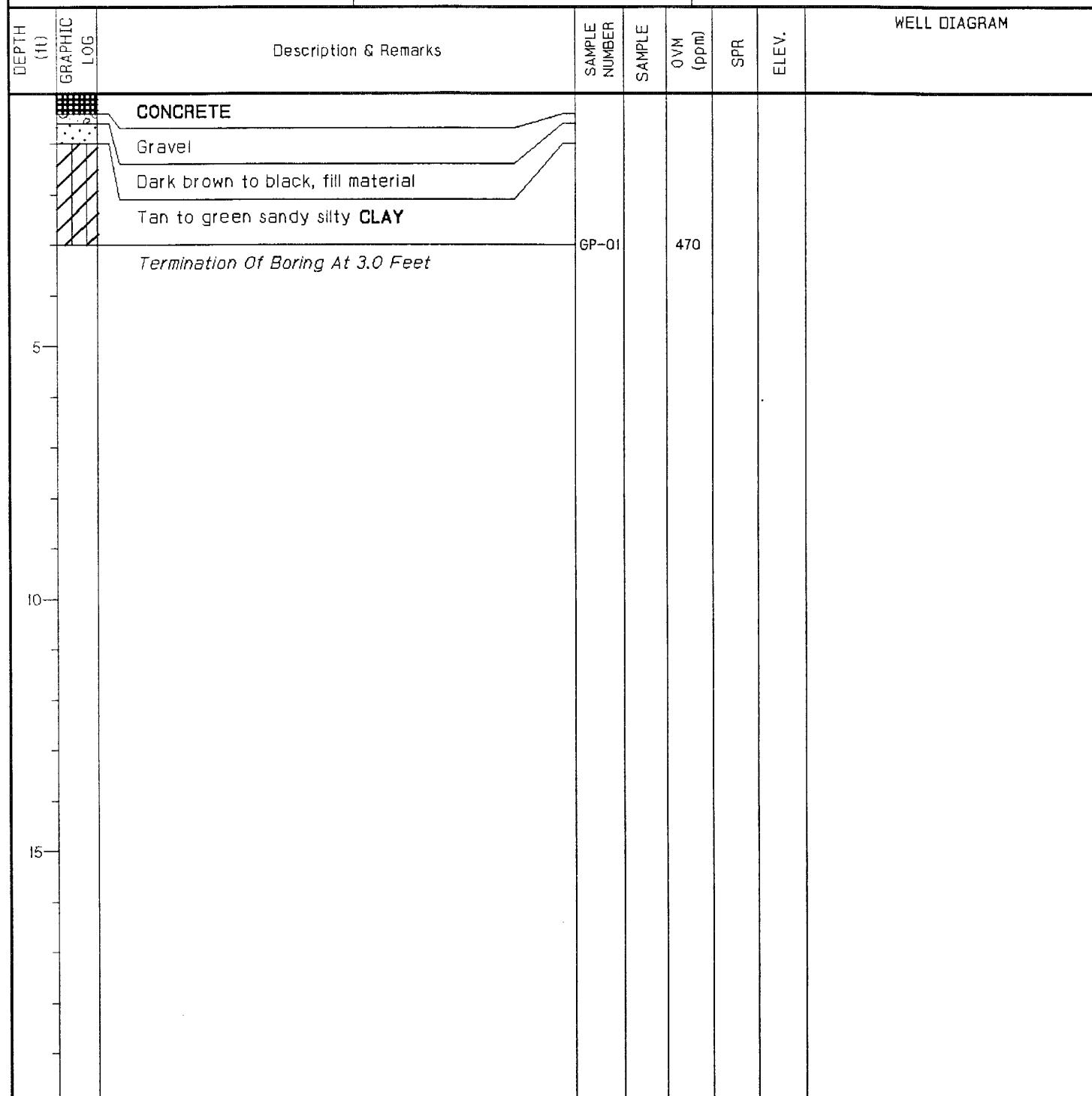
WATER LEVEL:

DRILLING METHOD: 1" Rod

DRILL RIG: Geoprobe

NOTES:

A soil sample from 1-3 feet below ground surface was submitted for TPH 3550 and TPH 5030 analyses.



PROJECT:

NCDOT-Amtrak Station
Charlotte, North Carolina

WELL LOG**D-6**

PROJECT NO.: 1040-98-110

ELEVATION: ft. NGVD

NOTES:

LOGGED BY: HFK

BORING DEPTH: 3 FEET

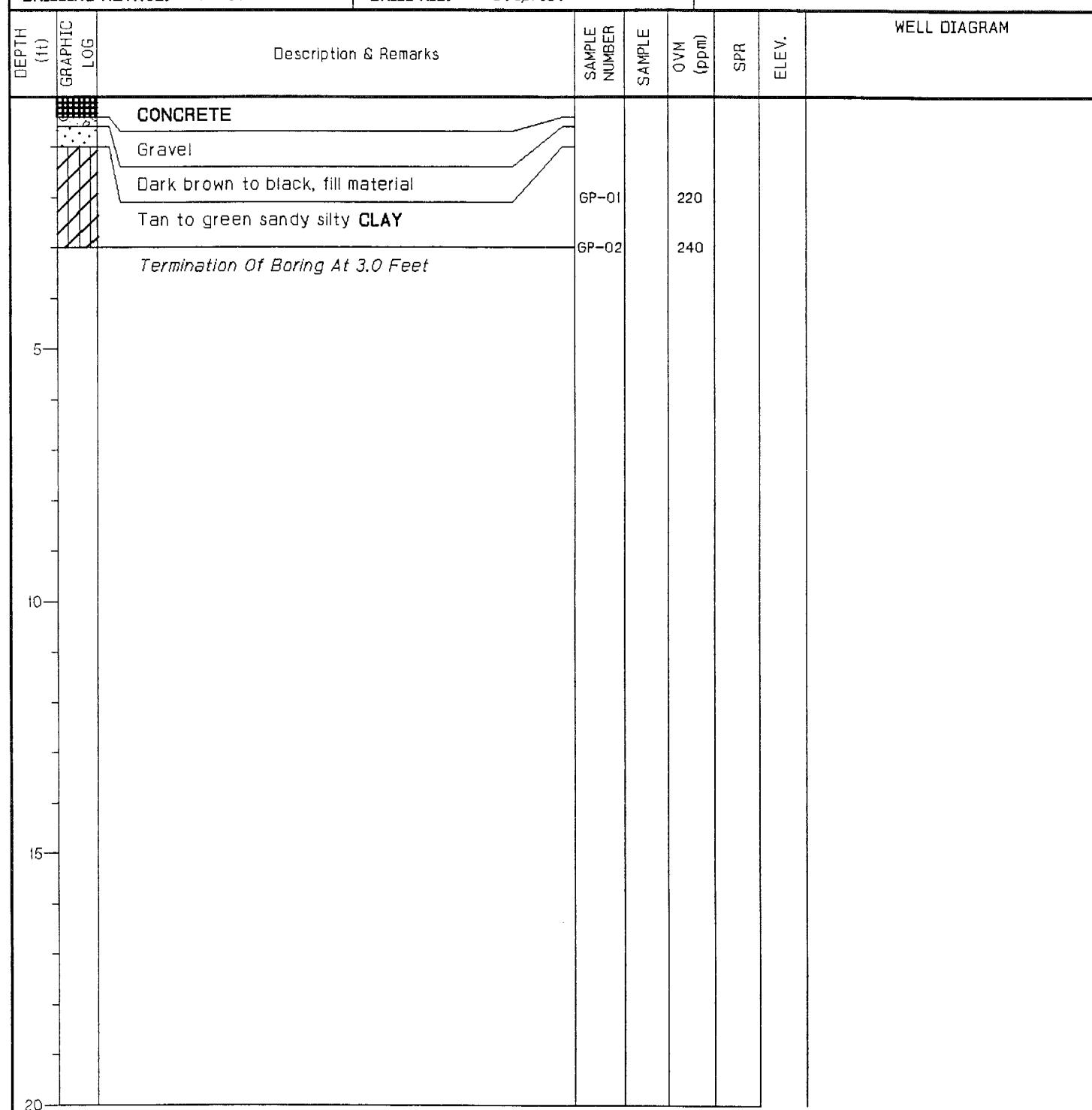
A soil sample from 1-3 feet below ground surface was submitted for TPH 3550 and TPH 5030 analyses.

DATE DRILLED: 2-15-99

WATER LEVEL:

DRILLING METHOD: 1" Rod

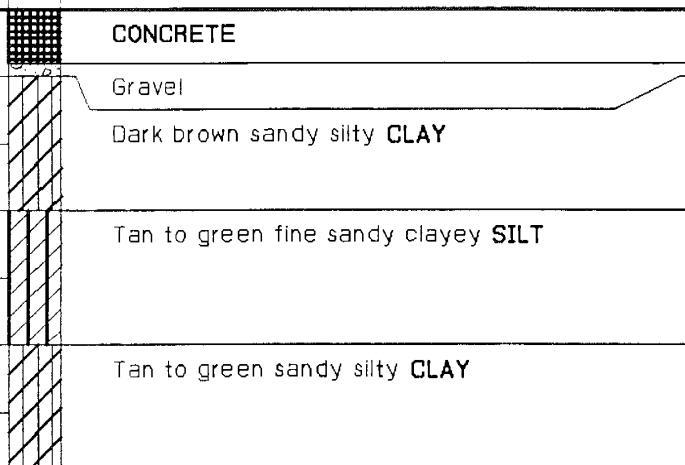
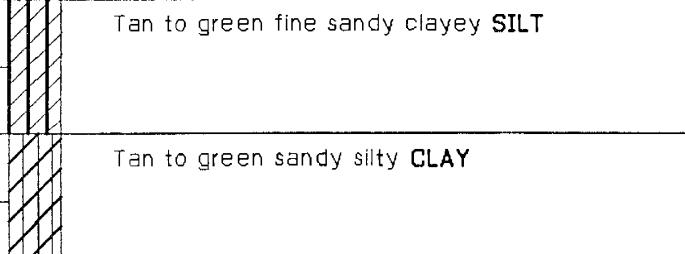
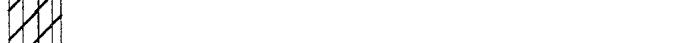
DRILL RIG: Geoprobe



PROJECT:

NCDOT-Amtrak Station
Charlotte, North Carolina

WELL LOG**HA-1**

PROJECT NO.:	1040-98-110	ELEVATION:	ft. NGVD	NOTES: A soil sample from 1-2 feet below ground surface was submitted for TPH 3550 and TPH 5030 analyses.				
LOGGED BY:	HFK	BORING DEPTH:	7 FEET					
DATE DRILLED:	2-15-99	WATER LEVEL:						
DRILLING METHOD:	3" Bucket	DRILL RIG:	Hand Auger					
DEPTH (ft)	GRAPHIC LOG	Description & Remarks	SAMPLE NUMBER	SAMPLE	OVM (ppm)	SPR	ELEV.	WELL DIAGRAM
0		CONCRETE Gravel Dark brown sandy silty CLAY	HA-01		57			
5		Tan to green fine sandy clayey SILT	HA-02		17			
7		Tan to green sandy silty CLAY	HA-03		20			
10			HA-04		17			
15								
20								

PROJECT:

NCDOT-Amtrak Station
Charlotte, North Carolina

WELL LOG**NO-1**

PROJECT NO.: 1040-98-110

ELEVATION: ft. NGVD

LOGGED BY: HFK

BORING DEPTH: 3 FEET

DATE DRILLED: 2-16-99

WATER LEVEL:

DRILLING METHOD: 1" Rod

DRILL RIG: Geoprobe

NOTES:

A soil sample from 1-3 feet below ground surface was submitted for TPH 3550 analysis.

DEPTH (ft)	GRAPHIC LOG	Description & Remarks	SAMPLE NUMBER	SAMPLE	OVM (ppm)	SPR	ELEV.	WELL DIAGRAM
0		CONCRETE Gravel Tan to orange sandy clayey SILT						
5		Termination Of Boring At 3.0 Feet						
10								
15								
20								

PROJECT:

NCDOT-Amtrak Station
Charlotte, North Carolina

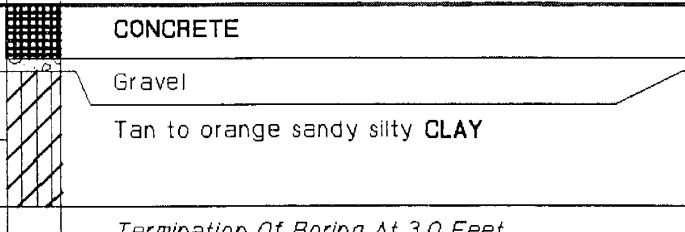
WELL LOG**NO-2**

PROJECT NO.: 1040-98-110		ELEVATION: ft. NGVD			NOTES: No soil sample was obtained.							
LOGGED BY: HFK		BORING DEPTH: 8 inches FEET										
DATE DRILLED: 2-16-99		WATER LEVEL:										
DRILLING METHOD: 1" Rod		DRILL RIG: Geoprobe										
DEPTH (ft)	GRAPHIC LOG	Description & Remarks		SAMPLE NUMBER	SAMPLE	OVM (ppm)	SPR	ELEV.	WELL DIAGRAM			
		AUGER REFUSAL										
		Termination Of Boring At 0.8 Feet										
5												
10												
15												
20												

PROJECT:

NCDOT-Amtrak Station
Charlotte, North Carolina

WELL LOG**NO-3**

PROJECT NO.:	1040-98-110	ELEVATION:	ft. NGVD	NOTES: A soil sample from 1-3 feet below ground surface was submitted for TPH 3550 analysis.					
LOGGED BY:	HFK	BORING DEPTH:	3 FEET						
DATE DRILLED:	2-16-99	WATER LEVEL:							
DRILLING METHOD:	1" Rod	DRILL RIG:	Geoprobe						
DEPTH (ft)	GRAPHIC LOG	Description & Remarks		SAMPLE NUMBER	SAMPLE	OVN (ppm)	SPR	ELEV.	WELL DIAGRAM
		CONCRETE 		GP-01		2			
5									
10									
15									
20									

PROJECT:

**NCDOT-Amtrak Station
Charlotte, North Carolina**

WELL LOG**NO-5A**

PROJECT NO.: 1040-98-110	ELEVATION: ft. NGVD	NOTES: A soil sample from 1-3 feet below ground surface was submitted for TPH 3550 analysis.			
LOGGED BY: HFK	BORING DEPTH: 3 FEET				
DATE DRILLED: 2-16-99	WATER LEVEL:				
DRILLING METHOD: 1" Rod	DRILL RIG: Geoprobe				
DEPTH (ft)	GRAPHIC LOG	Description & Remarks	SAMPLE NUMBER	SAMPLE	OVM (ppm)
0		CONCRETE	GP-01		3
1		Gravel			
2		Tan to brown sandy silty CLAY			
3		<i>Termination Of Boring At 3.0 Feet</i>			
5					
10					
15					
20					

PROJECT:

NCDOT-Amtrak Station
Charlotte, North Carolina

WELL LOG**NO-6**

PROJECT NO.: 1040-98-110

ELEVATION: ft. NGVD

NOTES:

A soil sample from 1-3 feet below ground surface was submitted for TPH 3550 analysis.

LOGGED BY: HFK

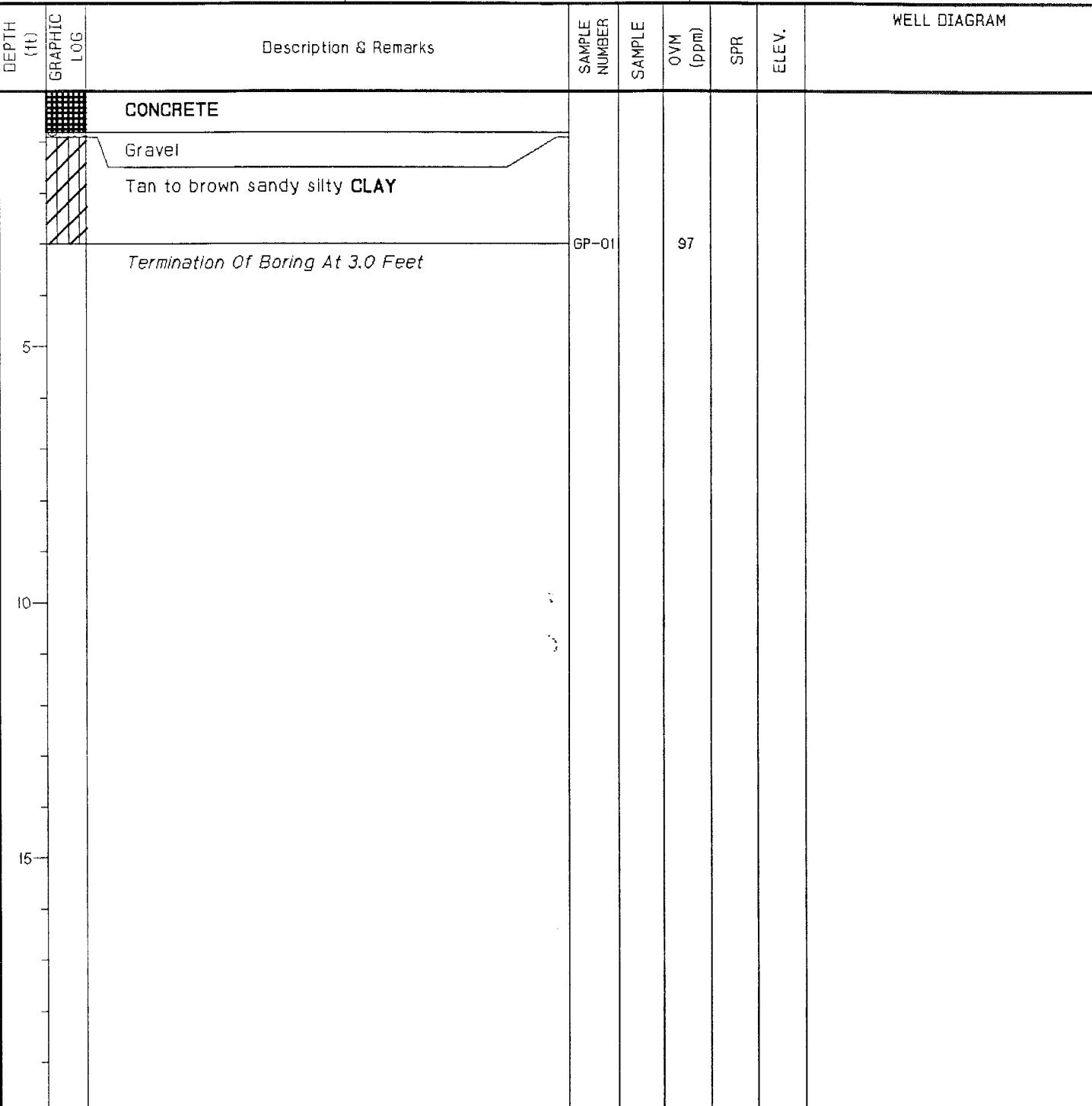
BORING DEPTH: 3 FEET

DATE DRILLED: 2-15-99

WATER LEVEL:

DRILLING METHOD: 1" Rod

DRILL RIG: Geoprobe



PROJECT:

**NCDOT-Amtrak Station
Charlotte, North Carolina**

WELL LOG**WO-1**

PROJECT NO.: 1040-98-110		ELEVATION: ft. NGVD		NOTES: A soil sample from 4-8 feet below ground surface was submitted for TPH 3550 and metals (cr & pb) analyses.							
LOGGED BY: HFK		BORING DEPTH: 8 FEET									
DATE DRILLED: 2-16-99		WATER LEVEL:									
DRILLING METHOD: 1" Rod		DRILL RIG: Geoprobe									
DEPTH (ft)	GRAPHIC LOG	Description & Remarks	SAMPLE NUMBER	SAMPLE	QVM (ppm)	SPR	ELEV.	WELL DIAGRAM			
		CONCRETE									
		Gravel									
		Tan to brown fine sandy clayey SILT									
5			GP-01		4						
		Tan to orange fine clayey sandy SILT									
			GP-02		12						
		Termination Of Boring At 8.0 Feet									
10											
15											
20											

PROJECT:

NCDOT-Amtrak Station
Charlotte, North Carolina

WELL LOG

WO-2

PROJECT NO.: 1040-98-110

ELEVATION: ft. NGVD

NOTES:

A soil sample from 4-8 feet below ground surface was submitted for TPH 3550 and metals (cr & pb) analyses.

LOGGED BY: HFK

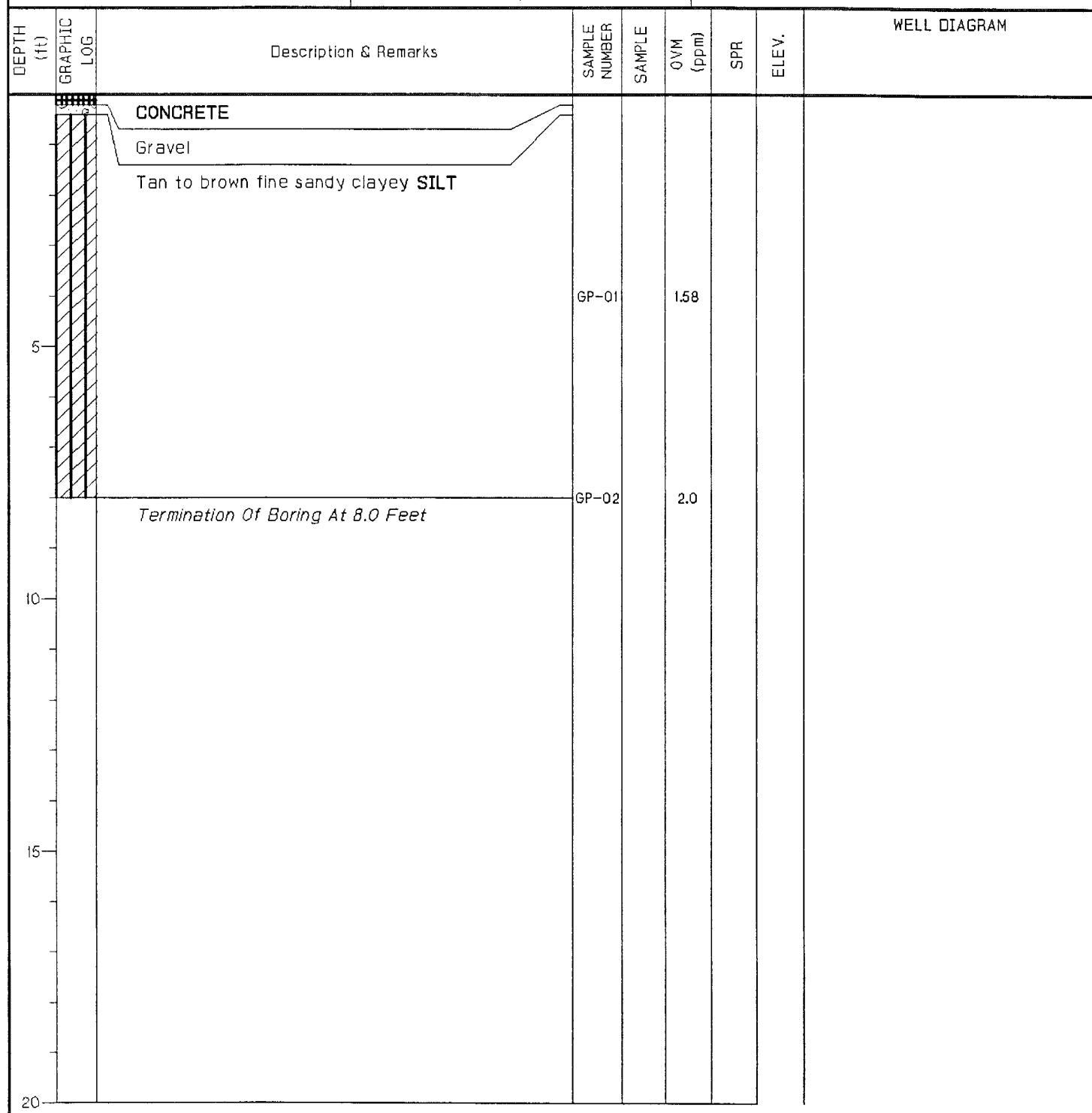
BORING DEPTH: 8 FEET

DATE DRILLED: 2-16-99

WATER LEVEL:

DRILLING METHOD: 1" Rod

DRILL RIG: Geoprobe



PROJECT:

NCDOT-Amtrak Station
Charlotte, North Carolina

WELL LOG**WO-3**

PROJECT NO. :	1040-98-110	ELEVATION:	ft. NGVD	NOTES: A soil sample from 4-8 feet below ground surface was submitted for TPH 3550 and metals (cr & pb) analyses.					
LOGGED BY:	HFK	BORING DEPTH:	8 FEET						
DATE DRILLED:	2-16-99	WATER LEVEL:							
DRILLING METHOD:	1" Rod	DRILL RIG:	Geoprobe						
DEPTH (ft)	GRAPHIC LOG	Description & Remarks		SAMPLE NUMBER	SAMPLE	OVM (ppm)	SPR	ELEV.	WELL DIAGRAM
		CONCRETE							
		Gravel							
		Tan to brown fine sandy silty CLAY							
5				GP-01		42			
		Tan to orange fine sandy clayey SILT							
				GP-02		68			
		Termination Of Boring At 8.0 Feet							
10									
15									
20									

PROJECT:

NCDOT-Amtrak Station
Charlotte, North Carolina

WELL LOG**WO-4S**

PROJECT NO.:	1040-98-110	ELEVATION:	ft. NGVD	NOTES: A soil sample from 8-12 feet below ground surface was submitted for TPH 3550 and metals (cr & pb) analyses. A water sample was also submitted for analysis.				
LOGGED BY:	HFK	BORING DEPTH:	12 FEET					
DATE DRILLED:	2-16-99	WATER LEVEL:						
DRILLING METHOD:	1" Rod	DRILL RIG:	Geoprobe					
DEPTH (ft)	GRAPHIC LOG	Description & Remarks	SAMPLE NUMBER	SAMPLE	OVM (ppm)	SPR	ELEV.	WELL DIAGRAM
		CONCRETE						
		Gravel						
		Dark gray, fill material						
		Tan brown fine sandy silty CLAY						
5		Tan brown sandy silty CLAY, (wet)	GP-01		10.0			
10		Tan to white fine sandy clayey SILT	GP-02		4.0			
15		Termination Of Boring At 12.0 Feet	GP-03		8.0			
20								

Appendix II

Soil Samples Taken from Areas with Suspected Diesel USTs

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

MAR 04 1999

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/03/99

AMTRAK STATION / NCDOT# 9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156834 SAMPLE ID- HA-1
DATE SAMPLED- 02/15/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1045
RECEIVED BY- HLH

Page 1 of 1

PROJECT NAME : NCDOT/AM STATN

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	PQL
		DATE	BY	DATE		
PERCENT SOLIDS	2540G		02/22/99	HLH	78.1 NA	
HIGH FRACTION HYDROCARBON/COMB	3550	02/25/99	AEK	03/01/99	JBR	335 mg/kg
LOW FRACTION HYDROCARBON/COMB	5030		02/23/99	JBR	< 0.10 mg/kg	0.10

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

HIGH FRACTION HYDROCARBON CONTAMINANT WAS IDENTIFIED AS DEGRADED FUEL OIL #2.
QUANTITATED AS FUEL OIL #2.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

Jane Hitzberger

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/03/99

AMTRAK STATION / NCDOT# 9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156835 SAMPLE ID- D-1
DATE SAMPLED- 02/15/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1130
RECEIVED BY- HLH

Page 1 of 1

PROJECT NAME : NCDOT/AM STATN

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	PQL
		DATE	BY DATE	BY		
PERCENT SOLIDS	2540G		02/22/99	HLH	84.9 NA	
HIGH FRACTION HYDROCARBON/COMB	3550	02/25/99	AEK	02/26/99	JBR	< 10.0 mg/kg
LOW FRACTION HYDROCARBON/COMB	5030			02/22/99	JBR	< 0.10 mg/kg

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

Julie Fitzhugh

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/03/99

AMTRAK STATION / NCDOT# 9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156836 SAMPLE ID- D-2
DATE SAMPLED- 02/15/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1315
RECEIVED BY- HLH

Page 1 of 1 PROJECT NAME : NCDOT/AM STATN

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	PQL
		DATE	BY DATE	BY		
PERCENT SOLIDS	2540G		02/22/99	HLH	77.2 NA	
HIGH FRACTION HYDROCARBON/COMB	3550	02/25/99	AEK	02/26/99	JBR	< 10.0 mg/kg
LOW FRACTION HYDROCARBON/COMB	5030			02/22/99	JBR	< 0.10 mg/kg

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

Jeanne Fitzhugh

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/03/99

AMTRAK STATION / NCDOT# 9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156838 SAMPLE ID- D-3
DATE SAMPLED- 02/15/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1430
RECEIVED BY- HLH

Page 1 of 1

PROJECT NAME : NCDOT/AM STATN

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	PQL
		DATE	BY	DATE		
PERCENT SOLIDS	2540G		02/22/99	HLH	70.7 NA	
HIGH FRACTION HYDROCARBON/COMB	3550	02/25/99	AEK	02/26/99	JBR	< 10.0 mg/kg
LOW FRACTION HYDROCARBON/COMB	5030		02/22/99	JBR	< 0.10 mg/kg	0.10

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

Eric Litzbeyer

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/03/99

AMTRAK STATION / NCDOT# 9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156837 SAMPLE ID- D-4
DATE SAMPLED- 02/15/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1355
RECEIVED BY- HLH

Page 1 of 1 PROJECT NAME : NCDOT/AM STATN

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	PQL
		DATE	BY DATE	BY		
PERCENT SOLIDS	2540G		02/22/99	HLH	91.5 NA	
HIGH FRACTION HYDROCARBON/COMB	3550	02/25/99	AEK	02/26/99	JBR	< 10.0 mg/kg
LOW FRACTION HYDROCARBON/COMB	5030		02/22/99	JBR	< 0.10 mg/kg	10.0 0.10

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

Jeanne Fitzhauer

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/03/99

AMTRAK STATION / NCDOT# 9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156840 SAMPLE ID- D-5
DATE SAMPLED- 02/15/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1530
RECEIVED BY- HLH

Page 1 of 1

PROJECT NAME : NCDOT/AM STATN

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	PQL
		DATE	BY DATE	BY		
PERCENT SOLIDS	2540G		02/22/99	HLH	80.1 NA	
HIGH FRACTION HYDROCARBON/COMB	3550	02/25/99	AEK	02/26/99	JBR	264 mg/kg
LOW FRACTION HYDROCARBON/COMB	5030		02/22/99	JBR	13.8 mg/kg	0.10

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids) /100.

LOW FRACTION HYDROCARBON CONTAMINANT UNKNOWN; POSSIBLY DEGRADED GASOLINE;
QUANTITATED AS GASOLINE.

HIGH FRACTION HYDROCARBON CONTAMINANT WAS IDENTIFIED AS DEGRADED FUEL OIL #2.
QUANTITATED AS FUEL OIL #2.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

Terrie Fitzhugh

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/03/99

AMTRAK STATION / NCDOT# 9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156839 SAMPLE ID- D-6
DATE SAMPLED- 02/15/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1500
RECEIVED BY- HLH

Page 1 of 1

PROJECT NAME : NCDOT/AM STATN

ANALYSIS	METHOD	SAMPLE PREP		ANALYSIS		RESULT UNITS	PQL
		DATE	BY	DATE	BY		
PERCENT SOLIDS	2540G			02/22/99	HLH	82.2 NA	
HIGH FRACTION HYDROCARBON/COMB	3550	02/25/99	AEK	02/26/99	JBR	< 10.0 mg/kg	10.0
LOW FRACTION HYDROCARBON/COMB	5030			02/22/99	JBR	< 0.10 mg/kg	0.10

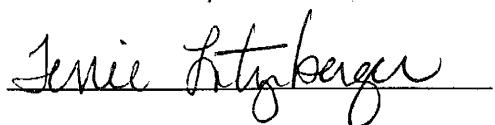
PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR



CTE

Chemical & Environmental Technology, Inc.

102-A Woodwinds Industrial Ct. Cary, NC 27511
 (919) 467-3090 FAX: (919) 467-3515

CHAIN OF CUSTODY

Page 1 of 2

ANALYSES REQUIRED									
CLIENT NAME:	NC DOT								
ADDRESS:	ADDRESS: Raleigh, NC								
PROJECT NO:	PROJECT NO: 9.908024P								
COLLECTED BY: (Signature)	PRINTED NAME: Miles Berndt								
CET SAMPLE #	DATE / TIME	SAMPLE TYPE / COM	SAMPLE I.D.	SAMPLE MATRIX	# OF CONTAINERS	REMARKS	PRESERVED IN FIELD	PRESERVED IN LAB	PRESERVED ON ICE
1040-18-110	2/15/99 10:45	X	HA-1 1'-2'	soil	1		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2/15/99 11:30	X	D-1 @ 8'-12'	soil	1	X	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	2/15/99 1:15	X	D-2 @ 8'-12'	soil	1	X	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	2/15/99 1:55	X	D-4 @ 8'-12'	soil	1	X	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	2/15/99 2:30	X	D-3 @ 8'-12'	soil	1	X	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	2/15/99 3:00	X	D-6 @ 1'-3'	soil	1	X	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	2/15/99 3:30	X	D-5 @ 1'-3'	soil	1	X	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	2/15/99 3:45	X	N0-6 01'-3'	soil	1	X	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
RELINQUISHED BY (Signature)	DATE	TIME	RECEIVED BY (Signature)	RELINQUISHED BY (Signature)					
RELINQUISHED BY (Signature)	DATE	TIME	RECEIVED FOR LABORATORY BY:	DATE	TIME	ADDITIONAL INSTRUCTIONS:			
Randy	2/19/99	10:16	John	19:09	10:16	Received at 20C M			

*Rush work requires laboratory approval prior to sample submission. Additional charges may apply.

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

METHOD REFERENCES

Federal Register, Vol. 59, 40 CFR Part 136.3, January 31, 1994

--Metals, Inorganics, and Organics for groundwater and wastewater

Federal Register, Vol. 56, 40 CFR Parts 141-143, January 30, 1991

--Metals, Inorganics, and Organics for drinking water

"Groundwater Section Guidelines for the Investigation and Remediation of Soils and Groundwater", NCDEHNR, DEM, March 1993.

--High Fraction Hydrocarbon and Low Fraction Hydrocarbon for groundwater and soil

SW-846, Third Edition, Revision I, July 1992

--Inorganics and Organics in soil or sludges. Metals in soil, sludge, or groundwater.
(Metals in groundwater are digested by **Method 3030C, Standard Methods, 18th Edition**)

40 CFR Part 261, Appendix II and III

--Toxic Characteristic Leaching Procedure

Standard Methods, 18th Edition, 1992

--Total and Fecal Coliform in wastewater, streams, and lakes

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC /NC DOT
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/16/99

NCDOT AMTRAK STATION #9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156842 SAMPLE ID- D-3A
DATE SAMPLED- 02/17/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1400
RECEIVED BY- HLH

Page 1 of 6

PROJECT NAME : NCDOT/AM STATN

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
PERCENT SOLIDS	2540G			02/22/99 HLH	71.1	NA	
MADEP EPH / COMBINED	EPH			03/02/99 TEL			
C9-C18 ALIPHATICS	EPH				< 35	mg/kg	35
C19-C36 ALIPHATICS	EPH				< 25	mg/kg	25
C11-C22 AROMATICS	EPH				< 13	mg/kg	13
SURROGATE 1 % RECOVERY	EPH				72	percent	
SURROGATE 2 % RECOVERY	EPH				65	percent	
FRACTION.SURR#1 % RECOVERY	EPH				59	percent	
FRACTION.SURR#2 % RECOVERY	EPH				99	percent	
MADEP VPH/COMBINED	VPH			03/03/99 JBR			
C5-C8 ALIPHATICS	VPH				< 10.0	mg/kg	10.0
C9-C12 ALIPHATICS	VPH				< 10.0	mg/kg	10.0
C9-C10 AROMATICS	VPH				< 10.0	mg/kg	10.0
SURROGATE % RECOVERY - PID	VPH				105	percent	
SURROGATE % RECOVERY - FID	VPH				97.8	percent	
VOLATILE ORGANIC CMPNDS - SOIL	8021			03/02/99 ALT			
BENZENE	8021				< 5.0	ug/kg	5.0
BROMOBENZENE	8021				< 5.0	ug/kg	5.0
BROMOCHLOROMETHANE	8021				< 5.0	ug/kg	5.0
BROMODICHLOROMETHANE	8021				< 5.0	ug/kg	5.0
BROMOFORM	8021				< 5.0	ug/kg	5.0

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 2 of 6

PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156842

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			PQL
		DATE	BY DATE	BY	
BROMOMETHANE	8021			< 5.0 ug/kg	5.0
n-BUTYLBENZENE	8021			< 5.0 ug/kg	5.0
sec-BUTYLBENZENE	8021			< 5.0 ug/kg	5.0
tert-BUTYLBENZENE	8021			< 5.0 ug/kg	5.0
CARBON TETRACHLORIDE	8021			< 5.0 ug/kg	5.0
CHLOROBENZENE	8021			< 5.0 ug/kg	5.0
CHLOROETHANE	8021			< 5.0 ug/kg	5.0
CHLOROFORM	8021			< 5.0 ug/kg	5.0
CHLOROMETHANE	8021			< 5.0 ug/kg	5.0
2-CHLOROTOLUENE	8021			< 5.0 ug/kg	5.0
4-CHLOROTOLUENE	8021			< 5.0 ug/kg	5.0
DIBROMOCHLOROMETHANE	8021			< 5.0 ug/kg	5.0
1,2-DIBROMO-3-CHLOROPROPANE	8021			< 5.0 ug/kg	5.0
1,2-DIBROMOETHANE	8021			< 5.0 ug/kg	5.0
DIBROMOMETHANE	8021			< 5.0 ug/kg	5.0
1,2-DICHLOROBENZENE	8021			< 5.0 ug/kg	5.0
1,3-DICHLOROBENZENE	8021			< 5.0 ug/kg	5.0
1,4-DICHLOROBENZENE	8021			< 5.0 ug/kg	5.0
DICHLORODIFLUOROMETHANE	8021			< 5.0 ug/kg	5.0
1,1-DICHLOROETHANE	8021			< 5.0 ug/kg	5.0
1,2-DICHLOROETHANE	8021			< 5.0 ug/kg	5.0
1,1 DICHLOROETHENE	8021			< 5.0 ug/kg	5.0
cis-1,2-DICHLOROETHENE	8021			< 5.0 ug/kg	5.0
trans-1,2-DICHLOROETHENE	8021			< 5.0 ug/kg	5.0
1,2-DICHLOROPROPANE	8021			< 5.0 ug/kg	5.0
1,3-DICHLOROPROPANE	8021			< 5.0 ug/kg	5.0
2,2-DICHLOROPROPANE	8021			< 5.0 ug/kg	5.0
1,1-DICHLOROPROPENE	8021			< 5.0 ug/kg	5.0
cis-1,3-DICHLOROPROPENE	8021			< 5.0 ug/kg	5.0
trans-1,3-DICHLOROPROPENE	8021			< 5.0 ug/kg	5.0
ETHYLBENZENE	8021			< 5.0 ug/kg	5.0

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 3 of 6

PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156842

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	PQL
		DATE	BY DATE	BY		
HEXACHLOROBUTADIENE	8021			< 5.0 ug/kg	5.0	
ISOPROPYLBENZENE	8021			< 5.0 ug/kg	5.0	
p-ISOPROPYLtoluene	8021			< 5.0 ug/kg	5.0	
METHLYENE CHLORIDE	8021			< 5.0 ug/kg	5.0	
NAPHTHALENE	8021			< 5.0 ug/kg	5.0	
n-PROPYLBENZENE	8021			< 5.0 ug/kg	5.0	
STYRENE	8021			< 5.0 ug/kg	5.0	
1,1,1,2-TETRACHLOROETHANE	8021			< 5.0 ug/kg	5.0	
1,1,2,2-TETRACHLOROETHANE	8021			< 5.0 ug/kg	5.0	
TETRACHLOROETHENE	8021			< 5.0 ug/kg	5.0	
TOLUENE	8021			< 5.0 ug/kg	5.0	
1,2,3-TRICHLOROBENZENE	8021			< 5.0 ug/kg	5.0	
1,2,4-TRICHLOROBENZENE	8021			< 5.0 ug/kg	5.0	
1,1,1-TRICHLOROETHANE	8021			< 5.0 ug/kg	5.0	
1,1,2-TRICHLOROETHANE	8021			< 5.0 ug/kg	5.0	
TRICHLOROETHENE	8021			< 5.0 ug/kg	5.0	
TRICHLOROFLUOROMETHANE	8021			< 5.0 ug/kg	5.0	
1,2,3-TRICHLOROPROPANE	8021			< 5.0 ug/kg	5.0	
1,2,4-TRIMETHYLBENZENE	8021			< 5.0 ug/kg	5.0	
1,3,5-TRIMETHYLBENZENE	8021			< 5.0 ug/kg	5.0	
VINYL CHLORIDE	8021			< 5.0 ug/kg	5.0	
o-XYLENE	8021			< 5.0 ug/kg	5.0	
m,p-XYLENES	8021			< 5.0 ug/kg	5.0	
ISOPROPYL ETHER (IPE)	8021			< 5.0 ug/kg	5.0	
METHYLTERT-BUTYLETHER (MTBE)	8021			< 5.0 ug/kg	5.0	
SURROGATE a	8021			96.9 percent		-
SURROGATE b	8021			98.6 percent		-
BASE NEUTRAL/ACIDS IN SOLIDS	8270	03/02/99	AEK	03/12/99 ***		
BASE NEUTRAL	8270				*	
ACENAPHTHENE	8270				* ug/kg	
ACENAPHTHYLENE	8270				* ug/kg	

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 4 of 6

PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156842

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
ANILINE	8270				*	ug/kg	
ANTHRACENE	8270				*	ug/kg	
BENZIDINE	8270				*	ug/kg	
BENZO(a) ANTHRACENE	8270				*	ug/kg	
BENZO(b) FLUORANTHENE	8270				*	ug/kg	
BENZO(k) FLUORANTHENE	8270				*	ug/kg	
BENZO(g, h, i) PERYLENE	8270				*	ug/kg	
BENZO(a) PYRENE	8270				*	ug/kg	
BENZYL ALCOHOL	8270				*	ug/kg	
bis-(2-CHLOROETHYL) ETHER	8270				*	ug/kg	
bis-(2-CHLOROETHOXY) METHANE	8270				*	ug/kg	
bis-(2-CHLOROISOPROPYL) ETHER	8270				*	ug/kg	
bis-(2-ETHYLHEXYL) PHTHALATE	8270				*	ug/kg	
4-BROMOPHENYL PHENYL ETHER	8270				*	ug/kg	
BUTYL BENZYL PHTHALATE	8270				*	ug/kg	
4-CHLOROANILINE	8270				*	ug/kg	
2-CHLORONAPHTHALENE	8270				*	ug/kg	
4-CHLOROPHENYL PHENYL ETHER	8270				*	ug/kg	
CHRYSENE	8270				*	ug/kg	
DIBENZO(a, h) ANTHRACENE	8270				*	ug/kg	
DIBENZOFURAN	8270				*	ug/kg	
di-n-BUTYLPHTHALATE	8270				*	ug/kg	
1, 2-DICHLOROBENZENE	8270				*	ug/kg	
1, 3-DICHLOROBENZENE	8270				*	ug/kg	
1, 4-DICHLOROBENZENE	8270				*	ug/kg	
3, 3'-DICHLOROBENZIDINE	8270				*	ug/kg	
DIETHYL PHTHALATE	8270				*	ug/kg	
DIMETHYL PHTHALATE	8270				*	ug/kg	
2, 4-DINITROTOLUENE	8270				*	ug/kg	
2, 6-DINITROTOLUENE	8270				*	ug/kg	
di-n-OCTYLPHTHALATE	8270				*	ug/kg	

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

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PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156842

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
FLUORANTHENE	8270				*	ug/kg	
FLUORENE	8270				*	ug/kg	
HEXACHLOROBENZENE	8270				*	ug/kg	
HEXACHLOROBUTADIENE	8270				*	ug/kg	
HEXACHLOROCYCLOPENTADIENE	8270				*	ug/kg	
HEXACHLOROETHANE	8270				*	ug/kg	
INDENO(1, 2, 3-cd) PYRENE	8270				*	ug/kg	
ISOPHORONE	8270				*	ug/kg	
2-METHYLNAPHTHALENE	8270				*	ug/kg	
NAPHTHALENE	8270				*	ug/kg	
2-NITROANILINE	8270				*	ug/kg	
3-NITROANILINE	8270				*	ug/kg	
4-NITROANILINE	8270				*	ug/kg	
NITROBENZENE	8270				*	ug/kg	
N-NITROSODIMETHYLAMINE	8270				*	ug/kg	
N-NITROSODIPHENYLAMINE	8270				*	ug/kg	
N-NITROSODI-n-PROPYLAMINE	8270				*	ug/kg	
PHENANTHRENE	8270				*	ug/kg	
PYRENE	8270				*	ug/kg	
1, 2, 4-TRICHLOROBENZENE	8270				*	ug/kg	
ACIDS	8270				*		
BENZOIC ACID	8270				*	ug/kg	
4-CHLORO-3-METHYLPHENOL	8270				*	ug/kg	
2-CHLOROPHENOL	8270				*	ug/kg	
2, 4-DICHLOROPHENOL	8270				*	ug/kg	
2, 6-DICHLOROPHENOL	8270				*	ug/kg	
2, 4-DIMETHYLPHENOL	8270				*	ug/kg	
2, 4-DINITROPHENOL	8270				*	ug/kg	
2-METHYL-4, 6-DINITROPHENOL	8270				*	ug/kg	
2-METHYLPHENOL	8270				*	ug/kg	
4-METHYLPHENOL	8270				*	ug/kg	

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 6 of 6

PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156842

ANALYSIS	METHOD	SAMPLE DATE	PREP BY DATE	ANALYSIS BY	RESULT	UNITS	PQL
2-NITROPHENOL	8270				*	ug/kg	
4-NITROPHENOL	8270				*	ug/kg	
PENTACHLOROPHENOL	8270				*	ug/kg	
PHENOL	8270				*	ug/kg	
2,3,4,6-TETRACHLOROPHENOL	8270				*	ug/kg	
2,4,5-TRICHLOROPHENOL	8270				*	ug/kg	
2,4,6-TRICHLOROPHENOL	8270				*	ug/kg	
10 HIGHEST PEAKS	MASS SPEC			03/12/99 ***		*	

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

PLEASE REFER TO ENCLOSED REPORT FROM TOXICON FOR MADEP-EPH RESULTS.

* PLEASE REFER TO ENCLOSED REPORT FROM PRISM LABORATORIES FOR EPA 8270 RESULTS.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

Jenifer Styerberger

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC /NC DOT
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/16/99

NCDOT AMTRAK STATION #9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156843 SAMPLE ID- D-5A
DATE SAMPLED- 02/17/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1615
RECEIVED BY- HLH

Page 1 of 6

PROJECT NAME : NCDOT/AM STATN

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
PERCENT SOLIDS	2540G			02/22/99 HLH	74.8	NA	
MADEP EPH / COMBINED	EPH			03/02/99 TEL			
C9-C18 ALIPHATICS	EPH				< 35	mg/kg	35
C19-C36 ALIPHATICS	EPH				< 25	mg/kg	25
C11-C22 AROMATICS	EPH				< 13	mg/kg	13
SURROGATE 1 % RECOVERY	EPH				76	percent	
SURROGATE 2 % RECOVERY	EPH				73	percent	
FRACTION.SURR#1 % RECOVERY	EPH				65	percent	
FRACTION.SURR#2 % RECOVERY	EPH				92	percent	
MADEP VPH/COMBINED	VPH			03/04/99 JBR			
C5-C8 ALIPHATICS	VPH				15.5	mg/kg	10.0
C9-C12 ALIPHATICS	VPH				75.6	mg/kg	10.0
C9-C10 AROMATICS	VPH				43.9	mg/kg	10.0
SURROGATE % RECOVERY - PID	VPH				114	percent	
SURROGATE % RECOVERY - FID	VPH				105	percent	
VOLATILE ORGANIC CMPNDS - SOIL	8021			03/02/99 ALT			
BENZENE	8021				<61	ug/kg	61
BROMOBENZENE	8021				<61	ug/kg	61
BROMOCHLOROMETHANE	8021				<61	ug/kg	61
BROMODICHLOROMETHANE	8021				<61	ug/kg	61
BROMOFORM	8021				<61	ug/kg	61

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 2 of 6

PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156843

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT	UNITS	PQL
		DATE	BY	DATE			
BROMOMETHANE	8021				<61	ug/kg	61
n-BUTYLBENZENE	8021				728	ug/kg	61
sec-BUTYLBENZENE	8021				889	ug/kg	61
tert-BUTYLBENZENE	8021				194	ug/kg	61
CARBON TETRACHLORIDE	8021				<61	ug/kg	61
CHLOROBENZENE	8021				<61	ug/kg	61
CHLOROETHANE	8021				<61	ug/kg	61
CHLOROFORM	8021				<61	ug/kg	61
CHLOROMETHANE	8021				<61	ug/kg	61
2-CHLOROTOLUENE	8021				<61	ug/kg	61
4-CHLOROTOLUENE	8021				<61	ug/kg	61
DIBROMOCHLOROMETHANE	8021				<61	ug/kg	61
1, 2-DIBROMO-3-CHLOROPROPANE	8021				<61	ug/kg	61
1, 2-DIBROMOETHANE	8021				<61	ug/kg	61
DIBROMOMETHANE	8021				<61	ug/kg	61
1, 2-DICHLOROBENZENE	8021				<61	ug/kg	61
1, 3-DICHLOROBENZENE	8021				<61	ug/kg	61
1, 4-DICHLOROBENZENE	8021				<61	ug/kg	61
DICHLORODIFLUOROMETHANE	8021				<61	ug/kg	61
1, 1-DICHLOROETHANE	8021				<61	ug/kg	61
1, 2-DICHLOROETHANE	8021				<61	ug/kg	61
1, 1 DICHLOROETHENE	8021				<61	ug/kg	61
cis-1, 2-DICHLOROETHENE	8021				<61	ug/kg	61
trans-1, 2-DICHLOROETHENE	8021				<61	ug/kg	61
1, 2-DICHLOROPROPANE	8021				<61	ug/kg	61
1, 3-DICHLOROPROPANE	8021				<61	ug/kg	61
2, 2-DICHLOROPROPANE	8021				<61	ug/kg	61
1, 1-DICHLOROPROPENE	8021				<61	ug/kg	61
cis-1, 3-DICHLOROPROPENE	8021				<61	ug/kg	61
trans-1, 3-DICHLOROPROPENE	8021				<61	ug/kg	61
ETHYLBENZENE	8021				112	ug/kg	61

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 3 of 6

PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156843

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT UNITS	PQL
HEXACHLOROBUTADIENE	8021				<61 ug/kg	61
ISOPROPYLBENZENE	8021				270 ug/kg	61
p-ISOPROPYLTOLEUENE	8021				329 ug/kg	61
METHLYENE CHLORIDE	8021				<61 ug/kg	61
NAPHTHALENE	8021				1150 ug/kg	61
n-PROPYLBENZENE	8021				133 ug/kg	61
STYRENE	8021				<61 ug/kg	61
1,1,1,2-TETRACHLOROETHANE	8021				<61 ug/kg	61
1,1,2,2-TETRACHLOROETHANE	8021				<61 ug/kg	61
TETRACHLOROETHENE	8021				<61 ug/kg	61
TOLUENE	8021				<61 ug/kg	61
1,2,3-TRICHLOROBENZENE	8021				<61 ug/kg	61
1,2,4-TRICHLOROBENZENE	8021				<61 ug/kg	61
1,1,1-TRICHLOROETHANE	8021				<61 ug/kg	61
1,1,2-TRICHLOROETHANE	8021				<61 ug/kg	61
TRICHLOROETHENE	8021				<61 ug/kg	61
TRICHLOROFLUOROMETHANE	8021				<61 ug/kg	61
1,2,3-TRICHLOROPROPANE	8021				<61 ug/kg	61
1,2,4-TRIMETHYLBENZENE	8021				136 ug/kg	61
1,3,5-TRIMETHYLBENZENE	8021				132 ug/kg	61
VINYL CHLORIDE	8021				<61 ug/kg	61
o-XYLENE	8021				<61 ug/kg	61
m,p-KYLENES	8021				135 ug/kg	61
ISOPROPYL ETHER (IPE)	8021				<61 ug/kg	61
METHYLTERT-BUTYLETHER (MTBE)	8021				<61 ug/kg	61
SURROGATE a	8021				104 percent	
SURROGATE b	8021				87.1 percent	
BASE NEUTRAL/ACIDS IN SOLIDS	8270	03/02/99	AEK	03/12/99 ***		
BASE NEUTRAL	8270				*	
ACENAPHTHENE	8270				* ug/kg	
ACENAPHTHYLENE	8270				* ug/kg	

*
* ug/kg
* ug/kg

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

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PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156843

ANALYSIS	METHOD	SAMPLE	PREP	ANALYSIS	RESULT	UNITS	PQL
		DATE	BY DATE	BY			
ANILINE	8270				*	ug/kg	
ANTHRACENE	8270				*	ug/kg	
BENZIDINE	8270				*	ug/kg	
BENZO(a) ANTHRACENE	8270				*	ug/kg	
BENZO(b) FLUORANTHENE	8270				*	ug/kg	
BENZO(k) FLUORANTHENE	8270				*	ug/kg	
BENZO(g, h, i) PERYLENE	8270				*	ug/kg	
BENZO(a) PYRENE	8270				*	ug/kg	
BENZYL ALCOHOL	8270				*	ug/kg	
bis-(2-CHLOROETHYL) ETHER	8270				*	ug/kg	
bis-(2-CHLOROETHOXY) METHANE	8270				*	ug/kg	
bis-(2-CHLOROISOPROPYL) ETHER	8270				*	ug/kg	
bis-(2-ETHYLHEXYL) PHTHALATE	8270				*	ug/kg	
4-BROMOPHENYL PHENYL ETHER	8270				*	ug/kg	
BUTYL BENZYL PHTHALATE	8270				*	ug/kg	
4-CHLOROANILINE	8270				*	ug/kg	
2-CHLORONAPHTHALENE	8270				*	ug/kg	
4-CHLOROPHENYL PHENYL ETHER	8270				*	ug/kg	
CHRYSENE	8270				*	ug/kg	
DIBENZO(a, h) ANTHRACENE	8270				*	ug/kg	
DIBENZOFURAN	8270				*	ug/kg	
di-n-BUTYLPHTHALATE	8270				*	ug/kg	
1, 2-DICHLOROBENZENE	8270				*	ug/kg	
1, 3-DICHLOROBENZENE	8270				*	ug/kg	
1, 4-DICHLOROBENZENE	8270				*	ug/kg	
3, 3'-DICHLOROBENZIDINE	8270				*	ug/kg	
DIETHYL PHTHALATE	8270				*	ug/kg	
DIMETHYL PHTHALATE	8270				*	ug/kg	
2, 4-DINITROTOLUENE	8270				*	ug/kg	
2, 6-DINITROTOLUENE	8270				*	ug/kg	
di-n-OCTYLPHTHALATE	8270				*	ug/kg	

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 5 of 6

PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156843

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
FLUORANTHENE	8270				*	ug/kg	
FLUORENE	8270				*	ug/kg	
HEXACHLOROBENZENE	8270				*	ug/kg	
HEXACHLOROBUTADIENE	8270				*	ug/kg	
HEXACHLOROCYCLOPENTADIENE	8270				*	ug/kg	
HEXACHLOROETHANE	8270				*	ug/kg	
INDENO(1, 2, 3-cd) PYRENE	8270				*	ug/kg	
ISOPHORONE	8270				*	ug/kg	
2-METHYLNAPHTHALENE	8270				*	ug/kg	
NAPHTHALENE	8270				*	ug/kg	
2-NITROANILINE	8270				*	ug/kg	
3-NITROANILINE	8270				*	ug/kg	
4-NITROANILINE	8270				*	ug/kg	
NITROBENZENE	8270				*	ug/kg	
N-NITROSODIMETHYLAMINE	8270				*	ug/kg	
N-NITROSODIPHENYLAMINE	8270				*	ug/kg	
N-NITROSODI-n-PROPYLAMINE	8270				*	ug/kg	
PHENANTHRENE	8270				*	ug/kg	
PYRENE	8270				*	ug/kg	
1, 2, 4-TRICHLOROBENZENE	8270				*	ug/kg	
ACIDS	8270				*		
BENZOIC ACID	8270				*	ug/kg	
4-CHLORO-3-METHYLPHENOL	8270				*	ug/kg	
2-CHLOROPHENOL	8270				*	ug/kg	
2, 4-DICHLOROPHENOL	8270				*	ug/kg	
2, 6-DICHLOROPHENOL	8270				*	ug/kg	
2, 4-DIMETHYLPHENOL	8270				*	ug/kg	
2, 4-DINITROPHENOL	8270				*	ug/kg	
2-METHYL-4, 6-DINITROPHENOL	8270				*	ug/kg	
2-METHYLPHENOL	8270				*	ug/kg	
4-METHYLPHENOL	8270				*	ug/kg	

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

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PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156843

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			PQL
		DATE	BY DATE	BY	
2-NITROPHENOL	8270			* ug/kg	
4-NITROPHENOL	8270			* ug/kg	
PENTACHLOROPHENOL	8270			* ug/kg	
PHENOL	8270			* ug/kg	
2,3,4,6-TETRACHLOROPHENOL	8270			* ug/kg	
2,4,5-TRICHLOROPHENOL	8270			* ug/kg	
2,4,6-TRICHLOROPHENOL	8270			* ug/kg	
10 HIGHEST PEAKS	MASS SPEC		03/12/99 ***	*	

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

PLEASE REFER TO ENCLOSED REPORT FROM TOXICON FOR MADEP-EPH RESULTS.

* PLEASE REFER TO ENCLOSED REPORT FROM PRISM LABORATORIES FOR EPA 8270 RESULTS.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

Jenice Litzberger

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC /NC DOT
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/16/99

NCDOT AMTRAK STATION #9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156844 SAMPLE ID- D-5A 8'-10'
DATE SAMPLED- 02/17/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1615
RECEIVED BY- HLH

Page 1 of 6

PROJECT NAME : NCDOT/AM STATN

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
PERCENT SOLIDS	2540G		02/22/99	HLH	73.2	NA	
MADEP EPH / COMBINED	EPH		03/02/99	TEL	472	mg/kg	35
C9-C18 ALIPHATICS	EPH				< 25	mg/kg	25
C19-C36 ALIPHATICS	EPH				72	mg/kg	13
C11-C22 AROMATICS	EPH				67	percent	
SURROGATE 1 % RECOVERY	EPH				int	percent	
SURROGATE 2 % RECOVERY	EPH				60	percent	
FRACTION.SURR#1 % RECOVERY	EPH				117	percent	
FRACTION.SURR#2 % RECOVERY	EPH						
MADEP VPH/COMBINED	VPH		03/03/99	JBR	44.5	mg/kg	10.0
C5-C8 ALIPHATICS	VPH				182	mg/kg	10.0
C9-C12 ALIPHATICS	VPH				99.2	mg/kg	10.0
C9-C10 AROMATICS	VPH				118	percent	
SURROGATE % RECOVERY - PID	VPH				114	percent	
SURROGATE % RECOVERY - FID	VPH						
VOLATILE ORGANIC CMPNDS - SOIL	8021		03/02/99	ALT	<55	ug/kg	55
BENZENE	8021				<55	ug/kg	55
BROMOBENZENE	8021				<55	ug/kg	55
BROMOCHLOROMETHANE	8021				<55	ug/kg	55
BROMODICHLOROMETHANE	8021				<55	ug/kg	55
BROMOFORM	8021				<55	ug/kg	55

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

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PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156844

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	PQL
		DATE	BY DATE	BY		
BROMOMETHANE	8021			<55	ug/kg	55
n-BUTYLBENZENE	8021			571	ug/kg	55
sec-BUTYLBENZENE	8021			556	ug/kg	55
tert-BUTYLBENZENE	8021			345	ug/kg	55
CARBON TETRACHLORIDE	8021			<55	ug/kg	55
CHLOROBENZENE	8021			<55	ug/kg	55
CHLOROETHANE	8021			<55	ug/kg	55
CHLOROFORM	8021			<55	ug/kg	55
CHLOROMETHANE	8021			<55	ug/kg	55
2-CHLOROTOLUENE	8021			<55	ug/kg	55
4-CHLOROTOLUENE	8021			<55	ug/kg	55
DIBROMOCHLOROMETHANE	8021			<55	ug/kg	55
1,2-DIBROMO-3-CHLOROPROPANE	8021			<55	ug/kg	55
1,2-DIBROMOETHANE	8021			<55	ug/kg	55
DIBROMOMETHANE	8021			<55	ug/kg	55
1,2-DICHLOROBENZENE	8021			<55	ug/kg	55
1,3-DICHLOROBENZENE	8021			<55	ug/kg	55
1,4-DICHLOROBENZENE	8021			<55	ug/kg	55
DICHLORODIFLUOROMETHANE	8021			<55	ug/kg	55
1,1-DICHLOROETHANE	8021			<55	ug/kg	55
1,2-DICHLOROETHANE	8021			<55	ug/kg	55
1,1 DICHLOROETHENE	8021			<55	ug/kg	55
cis-1,2-DICHLOROETHENE	8021			<55	ug/kg	55
trans-1,2-DICHLOROETHENE	8021			<55	ug/kg	55
1,2-DICHLOROPROPANE	8021			<55	ug/kg	55
1,3-DICHLOROPROPANE	8021			<55	ug/kg	55
2,2-DICHLOROPROPANE	8021			<55	ug/kg	55
1,1-DICHLOROPROPENE	8021			<55	ug/kg	55
cis-1,3-DICHLOROPROPENE	8021			<55	ug/kg	55
trans-1,3-DICHLOROPROPENE	8021			<55	ug/kg	55
ETHYLBENZENE	8021			106	ug/kg	55

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

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PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156844

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
HEXACHLOROBUTADIENE	8021				<55	ug/kg	5E
ISOPROPYLBENZENE	8021				337	ug/kg	5E
p-ISOPROPYLTOLUENE	8021				195	ug/kg	5E
METHLYENE CHLORIDE	8021				<55	ug/kg	5E
NAPHTHALENE	8021				584	ug/kg	5E
n-PROPYLBENZENE	8021				176	ug/kg	5E
STYRENE	8021				<55	ug/kg	5E
1,1,1,2-TETRACHLOROETHANE	8021				<55	ug/kg	5E
1,1,2,2-TETRACHLOROETHANE	8021				<55	ug/kg	5E
TETRACHLOROETHENE	8021				<55	ug/kg	5E
TOLUENE	8021				<55	ug/kg	5E
1,2,3-TRICHLOROBENZENE	8021				<55	ug/kg	5E
1,2,4-TRICHLOROBENZENE	8021				<55	ug/kg	5E
1,1,1-TRICHLOROETHANE	8021				<55	ug/kg	5E
1,1,2-TRICHLOROETHANE	8021				<55	ug/kg	5E
TRICHLOROETHENE	8021				<55	ug/kg	5E
TRICHLOROFLUOROMETHANE	8021				<55	ug/kg	5E
1,2,3-TRICHLOROPROPANE	8021				<55	ug/kg	5E
1,2,4-TRIMETHYLBENZENE	8021				244	ug/kg	5E
1,3,5-TRIMETHYLBENZENE	8021				261	ug/kg	5E
VINYL CHLORIDE	8021				<55	ug/kg	5E
o-XYLENE	8021				70.2	ug/kg	5E
m,p-XYLENES	8021				117	ug/kg	5E
ISOPROPYL ETHER (IPE)	8021				<55	ug/kg	5E
METHYLTERT-BUTYLETHER (MTBE)	8021				<55	ug/kg	5E
SURROGATE a	8021				102	percent	
SURROGATE b	8021				86.4	percent	
BASE NEUTRAL/ACIDS IN SOLIDS	8270	03/02/99	AEK	03/12/99	***		
BASE NEUTRAL	8270					*	
ACENAPHTHENE	8270					* ug/kg	
ACENAPHTHYLENE	8270					* ug/kg	

*
* ug/kg
* ug/kg

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

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PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156844

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
ANILINE	8270				*	ug/kg	
ANTHRACENE	8270				*	ug/kg	
BENZIDINE	8270				*	ug/kg	
BENZO (a) ANTHRACENE	8270				*	ug/kg	
BENZO (b) FLUORANTHENE	8270				*	ug/kg	
BENZO (k) FLUORANTHENE	8270				*	ug/kg	
BENZO (g, h, i) PERYLENE	8270				*	ug/kg	
BENZO(a) PYRENE	8270				*	ug/kg	
BENZYL ALCOHOL	8270				*	ug/kg	
bis-(2-CHLOROETHYL) ETHER	8270				*	ug/kg	
bis-(2-CHLOROETHOXY) METHANE	8270				*	ug/kg	
bis-(2-CHLOROISOPROPYL) ETHER	8270				*	ug/kg	
bis-(2-ETHYLHEXYL) PHTHALATE	8270				*	ug/kg	
4-BROMOPHENYL PHENYL ETHER	8270				*	ug/kg	
BUTYL BENZYL PHTHALATE	8270				*	ug/kg	
4-CHLOROANILINE	8270				*	ug/kg	
2-CHLORONAPHTHALENE	8270				*	ug/kg	
4-CHLOROPHENYL PHENYL ETHER	8270				*	ug/kg	
CHRYSENE	8270				*	ug/kg	
DIBENZO(a, h) ANTHRACENE	8270				*	ug/kg	
DIBENZOFURAN	8270				*	ug/kg	
di-n-BUTYLPHthalate	8270				*	ug/kg	
1, 2-DICHLOROBENZENE	8270				*	ug/kg	
1, 3-DICHLOROBENZENE	8270				*	ug/kg	
1, 4-DICHLOROBENZENE	8270				*	ug/kg	
3, 3'-DICHLOROBENZIDINE	8270				*	ug/kg	
DIETHYL PHTHALATE	8270				*	ug/kg	
DIMETHYL PHTHALATE	8270				*	ug/kg	
2, 4-DINITROTOLUENE	8270				*	ug/kg	
2, 6-DINITROTOLUENE	8270				*	ug/kg	
di-n-OCTYLPHTHALATE	8270				*	ug/kg	

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

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PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156844

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	PQL
		DATE	BY DATE	BY		
FLUORANTHENE	8270			* ug/kg		
FLUORENE	8270			* ug/kg		
HEXACHLOROBENZENE	8270			* ug/kg		
HEXACHLOROBUTADIENE	8270			* ug/kg		
HEXACHLOROCYCLOPENTADIENE	8270			* ug/kg		
HEXACHLOROETHANE	8270			* ug/kg		
INDENO(1, 2, 3-cd) PYRENE	8270			* ug/kg		
ISOPHORONE	8270			* ug/kg		
2-METHYLNAPHTHALENE	8270			* ug/kg		
NAPHTHALENE	8270			* ug/kg		
2-NITROANILINE	8270			* ug/kg		
3-NITROANILINE	8270			* ug/kg		
4-NITROANILINE	8270			* ug/kg		
NITROBENZENE	8270			* ug/kg		
N-NITROSODIMETHYLAMINE	8270			* ug/kg		
N-NITROSODIPHENYLAMINE	8270			* ug/kg		
N-NITROSODI-n-PROPYLAMINE	8270			* ug/kg		
PHENANTHRENE	8270			* ug/kg		
PYRENE	8270			* ug/kg		
1, 2, 4-TRICHLOROBENZENE	8270			* ug/kg		
ACIDS	8270			*		
BENZOIC ACID	8270			* ug/kg		
4-CHLORO-3-METHYLPHENOL	8270			* ug/kg		
2-CHLOROPHENOL	8270			* ug/kg		
2, 4-DICHLOROPHENOL	8270			* ug/kg		
2, 6-DICHLOROPHENOL	8270			* ug/kg		
2, 4-DIMETHYLPHENOL	8270			* ug/kg		
2, 4-DINITROPHENOL	8270			* ug/kg		
2-METHYL-4, 6-DINITROPHENOL	8270			* ug/kg		
2-METHYLPHENOL	8270			* ug/kg		
4-METHYLPHENOL	8270			* ug/kg		

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 6 of 6

PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156844

ANALYSIS	METHOD	SAMPLE	PREP	ANALYSIS	RESULT	UNITS	PQL
		DATE	BY DATE	BY			
2-NITROPHENOL	8270				*	ug/kg	
4-NITROPHENOL	8270				*	ug/kg	
PENTACHLOROPHENOL	8270				*	ug/kg	
PHENOL	8270				*	ug/kg	
2,3,4,6-TETRACHLOROPHENOL	8270				*	ug/kg	
2,4,5-TRICHLOROPHENOL	8270				*	ug/kg	
2,4,6-TRICHLOROPHENOL	8270				*	ug/kg	
10 HIGHEST PEAKS	MASS SPEC			03/12/99 ***		*	

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

PLEASE REFER TO ENCLOSED REPORT FROM TOXICON FOR MADEP-EPH RESULTS.

* PLEASE REFER TO ENCLOSED REPORT FROM PRISM LABORATORIES FOR EPA 8270 RESULTS.

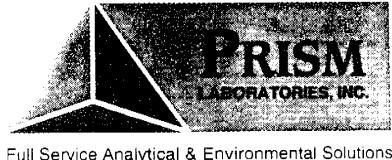
NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

Kevin L. Tybarger

Lab Report

From: NC Certification No. 402
SC Certification No. 99012
NC Drinking Water Cert. No. 37735
FL Certification No. E87519



March 15, 1999

To: Mr. Greg Melia
Chemical & Environmental Tech
102-A Woodwinds Industrial Ct
Cary, NC 27511
Project: Amtrack (1040-98-110)

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. AB22504 Customer Code: CET
Login Group #: 4865E5 Customer Reference: CET
Phone Number: (919)467-3090/fax(919)467-3515
Customer Sample I.D#: 156842 D-3A
Sample collection date: 02/17/99 Time: 14:00
Lab submittal date: 03/10/99 Time: 10:30
Received by: KJE Validated by: ADO

Parameter: TICs BY SEMIVOLATILE GC/MS
Method reference: 625/8270 Unit:
Result: see below
Date started: 03/12/99 Date finished: 03/15/99
Time started: 17:09 Analyst: HC

Parameter: SEMI-VOLATILE ORGANICS BY 8270
Method reference: SW846-8270 Unit: ug/kg
Result: see below
Date started: 03/12/99 Date finished: 03/15/99
Time started: 17:09 Analyst: HWC

Data for SEMI-VOLATILE ORGANICS BY 8270 ug/kg:

Component Name	Result	Component MDL
ACENAPHTHENE	Not detected	280.0
ACENAPHTHYLENE	Not detected	280.0
ANTHRACENE	Not detected	280.0
BENZO(A)ANTHRACENE	Not detected	280.0
BENZO(B)FLUORANTHENE	Not detected	280.0
BENZO(K)FLUORANTHENE	Not detected	280.0
BENZO(A)PYRENE	Not detected	280.0
BENZO(GHI)PERYLENE	Not detected	280.0
BIS(2-CHLOROETHOXY)METHANE	Not detected	280.0
BIS(2-CHLOROETHYL)ETHER	Not detected	280.0
BIS(2-CHLOROISOPROPYL)ETHER	Not detected	280.0
BIS(2-ETHYLHEXYL)PHTHALATE	Not detected	280.0
4-BROMOPHENYL PHENYL ETHER	Not detected	280.0
BUTYL BENZYL PHTHALATE	Not detected	280.0
4-CHLORO-3-METHYLPHENOL	Not detected	280.0

Lab Report

Mr. Greg Melia

Sample I.D. AB22504 (continued)

Page: 2

March 15, 1999



Full Service Analytical & Environmental Solutions

Data for SEMI-VOLATILE ORGANICS BY 8270 (continued):

Component Name	Result	Component MDL
2-CHLORONAPHTHALENE	Not detected	280.0
2-CHLOROPHENOL	Not detected	280.0
4-CHLOROPHENYL PHENYL ETHER	Not detected	280.0
CHRYSENE	Not detected	280.0
DIBENZO(A, H)ANTHRACENE	Not detected	280.0
DIBENZOFURAN	Not detected	280.0
DI-N-BUTYLPHTHALATE	Not detected	280.0
1, 2-DICHLOROBENZENE	Not detected	280.0
1, 3-DICHLOROBENZENE	Not detected	280.0
1, 4-DICHLOROBENZENE	Not detected	280.0
2, 4-DICHLOROPHENOL	Not detected	280.0
DIETHYL PHTHALATE	Not detected	280.0
2, 4-DIMETHYLPHENOL	Not detected	280.0
DIMETHYL PHTHALATE	Not detected	280.0
2, 4-DINITROPHENOL	Not detected	1400.0
2, 4-DINITROTOLUENE	Not detected	280.0
2, 6-DINITROTOLUENE	Not detected	280.0
DI-N-OCTYLPHTHALATE	Not detected	280.0
FLUORANTHENE	Not detected	280.0
FLUORENE	Not detected	280.0
HEXACHLOROBENZENE	Not detected	280.0
HEXACHLOROBUTADIENE	Not detected	280.0
HEXACHLOROCYCLOPENTADIENE	Not detected	280.0
HEXACHLOROETHANE	Not detected	280.0
INDENO(1, 2, 3-CD)PYRENE	Not detected	280.0
ISOPHORONE	Not detected	280.0
2-METHYL-4, 6-DINITROPHENOL	Not detected	1400.0
2-METHYL NAPHTHALENE	Not detected	280.0
2-METHYL-PHENOL	Not detected	280.0
4-METHYL-PHENOL	Not detected	280.0
NAPHTHALENE	Not detected	280.0
NITROBENZENE	Not detected	280.0
2-NITROPHENOL	Not detected	280.0
4-NITROPHENOL	Not detected	1400.0
N-NITROSODIPHENYLAMINE	Not detected	280.0
N-NITROSODI-N-PROPYLAMINE	Not detected	280.0
PENTACHLOROPHENOL	Not detected	1400.0
PHENANTHRENE	Not detected	280.0
PHENOL	Not detected	280.0
PYRENE	Not detected	280.0
1, 2, 4-TRICHLOROBENZENE	Not detected	280.0
2, 4, 5-TRICHLOROPHENOL	Not detected	280.0
2, 4, 6-TRICHLOROPHENOL	Not detected	280.0

Data for TICs BY SEMIVOLATILE GC/MS:

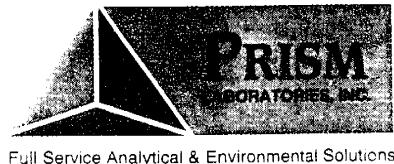
625/8270 Tentatively Identified Compounds (10-largest TICs):

<Identification Class>	<Closest Spectral Fit>	<Est. Conc.>
=====	=====	=====

Lab Report

Mr. Greg Melia
Page: 3
March 15, 1999

Sample I.D. AB22504 (continued)



Full Service Analytical & Environmental Solutions

Data for TICs BY SEMIVOLATILE GC/MS (continued):

No TICs found

Sample comments:

Project name: Amtrack (1040-98-110)
Sample extracted by CET.

If there are any questions regarding this data, please call.

A handwritten signature in black ink, appearing to read "AO".

Angela D. Overcash
Laboratory Director

Lab Report

From: NC Certification No. 402
SC Certification No. 99012
NC Drinking Water Cert. No. 37735
FL Certification No. E87519



Full Service Analytical & Environmental Solutions

March 15, 1999

To: Mr. Greg Melia
Chemical & Environmental Tech
102-A Woodwinds Industrial Ct
Cary, NC 27511
Project: Amtrack (1040-98-110)

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. AB22505 Customer Code: CET
Login Group #: 4865E5 Customer Reference: CET
Phone Number: (919)467-3090/fax(919)467-3515
Customer Sample I.D#: 156843 D-5A 4-6 ft
Sample collection date: 02/17/99 Time: 16:15
Lab submittal date: 03/10/99 Time: 10:30
Received by: KJE Validated by: ADO

Parameter: SEMI-VOLATILE ORGANICS BY 8270
Method reference: SW846-8270 Unit: ug/kg
Result: see below
Date started: 03/11/99 Date finished: 03/12/99
Time started: 19:15 Analyst: HWC

Parameter: TICs BY SEMIVOLATILE GC/MS
Method reference: 625/8270 Unit:
Result: see below
Date started: 03/11/99 Date finished: 03/12/99
Time started: 19:15 Analyst: HWC

Data for SEMI-VOLATILE ORGANICS BY 8270 ug/kg:

Component Name	Result	Component MDL
ACENAPHTHENE	Not detected	270.0
ACENAPHTHYLENE	Not detected	270.0
ANTHRACENE	Not detected	270.0
BENZO(A)ANTHRACENE	Not detected	270.0
BENZO(B)FLUORANTHENE	Not detected	270.0
BENZO(K)FLUORANTHENE	Not detected	270.0
BENZO(A)PYRENE	Not detected	270.0
BENZO(GHI)PERYLENE	Not detected	270.0
BIS(2-CHLOROETHOXY)METHANE	Not detected	270.0
BIS(2-CHLOROETHYL)ETHER	Not detected	270.0
BIS(2-CHLOROISOPROPYL)ETHER	Not detected	270.0
BIS(2-ETHYLHEXYL)PHTHALATE	Not detected	270.0
4-BROMOPHENYL PHENYL ETHER	Not detected	270.0
BUTYL BENZYL PHTHALATE	Not detected	270.0
4-CHLORO-3-METHYLPHENOL	Not detected	270.0

Lab Report

Mr. Greg Melia Sample I.D. AB22505 (continued)
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March 15, 1999



Data for SEMI-VOLATILE ORGANICS BY 8270 (continued):

Component Name	Result	Component MDL
2-CHLORONAPHTHALENE	Not detected	270.0
2-CHLOROPHENOL	Not detected	270.0
4-CHLOROPHENYL PHENYL ETHER	Not detected	270.0
CHRYSENE	Not detected	270.0
DIBENZO(A, H)ANTHRACENE	Not detected	270.0
DIBENZOFURAN	Not detected	270.0
DI-N-BUTYLPHTHALATE	Not detected	270.0
1, 2-DICHLOROBENZENE	Not detected	270.0
1, 3-DICHLOROBENZENE	Not detected	270.0
1, 4-DICHLOROBENZENE	Not detected	270.0
2, 4-DICHLOROPHENOL	Not detected	270.0
DIETHYL PHTHALATE	Not detected	270.0
2, 4-DIMETHYLPHENOL	Not detected	270.0
DIMETHYL PHTHALATE	Not detected	270.0
2, 4-DINITROPHENOL	Not detected	1350.0
2, 4-DINITROTOLUENE	Not detected	270.0
2, 6-DINITROTOLUENE	Not detected	270.0
DI-N-OCTYLPHTHALATE	Not detected	270.0
FLUORANTHENE	Not detected	270.0
FLUORENE	Not detected	270.0
HEXACHLOROBENZENE	Not detected	270.0
HEXACHLOROBUTADIENE	Not detected	270.0
HEXACHLOROCYCLOPENTADIENE	Not detected	270.0
HEXACHLOROETHANE	Not detected	270.0
INDENO(1, 2, 3-CD)PYRENE	Not detected	270.0
ISOPHORONE	Not detected	270.0
2-METHYL-4, 6-DINITROPHENOL	Not detected	1350.0
2-METHYL NAPHTHALENE	Not detected	270.0
2-METHYL-PHENOL	Not detected	270.0
4-METHYL-PHENOL	Not detected	270.0
NAPHTHALENE	Not detected	270.0
NITROBENZENE	Not detected	270.0
2-NITROPHENOL	Not detected	270.0
4-NITROPHENOL	Not detected	1350.0
N-NITROSODIPHENYLAMINE	Not detected	270.0
N-NITROSODI-N-PROPYLAMINE	Not detected	270.0
PENTACHLOROPHENOL	Not detected	1350.0
PHENANTHRENE	Not detected	270.0
PHENOL	Not detected	270.0
PYRENE	Not detected	270.0
1, 2, 4-TRICHLOROBENZENE	Not detected	270.0
2, 4, 5-TRICHLOROPHENOL	Not detected	270.0
2, 4, 6-TRICHLOROPHENOL	Not detected	270.0

Data for TICs BY SEMIVOLATILE GC/MS:

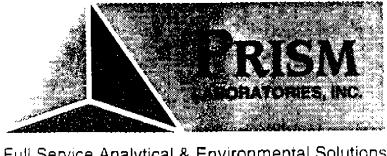
625/8270 Tentatively Identified Compounds (10-largest TICs):

<Identification Class>	<Closest Spectral Fit>	<Est. Conc.>
=====	=====	=====

Lab Report

Mr. Greg Melia
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March 15, 1999

Sample I.D. AB22505 (continued)



Full Service Analytical & Environmental Solutions

Data for TICs BY SEMIVOLATILE GC/MS (continued):

Unknown aliphatic hydrocarbon	(Unknown)	770 ug/L
Unknown aliphatic hydrocarbon	(Unknown)	3900 ug/L
Unknown aromatic hydrocarbon	(1-ethylnaphthalene)	720 ug/L
Unknown aromatic hydrocarbon	(2, 7-dimethylnaphthalene)	880 ug/L
Unknown aromatic hydrocarbon	(2, 3-dimethylnaphthalene)	1400 ug/L
Unknown aromatic hydrocarbon	(Unknown)	2100 ug/L
Unknown aromatic hydrocarbon	(1, 4, 6-trimethylnaphthalene)	2400 ug/L
Unknown aromatic hydrocarbon	(1, 6, 7-trimethylnaphthalene)	4300 ug/L
Unknown aromatic hydrocarbon	(2, 6-dimethyloctadecane)	1700 ug/L
Unknown aromatic hydrocarbon	(tetramethylhexadecane)	860 ug/L

Sample comments:

Project name: Amtrack (1040-98-110)
Sample extracted by CET.

If there are any questions regarding this data, please call.

A handwritten signature in black ink, appearing to read "AO".

Angela D. Overcash
Laboratory Director

Lab Report

From: NC Certification No. 402
SC Certification No. 99012
NC Drinking Water Cert. No. 37735
FL Certification No. E87519



March 15, 1999

To: Mr. Greg Melia
Chemical & Environmental Tech
102-A Woodwinds Industrial Ct
Cary, NC 27511
Project: Amtrack (1040-98-110)

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. AB22506 Customer Code: CET
Login Group #: 4865E5 Customer Reference: CET
Phone Number: (919)467-3090/fax(919)467-3515
Customer Sample I.D#: 156844 D-5A 8-10'
Sample collection date: 02/17/99 Time: 16:15
Lab submittal date: 03/10/99 Time: 10:30
Received by: KJE Validated by: ADO

Parameter: SEMI-VOLATILE ORGANICS BY 8270
Method reference: SW846-8270 Unit: ug/kg
Result: see below
Date started: 03/11/99 Date finished: 03/12/99
Time started: 20:00 Analyst: HWC

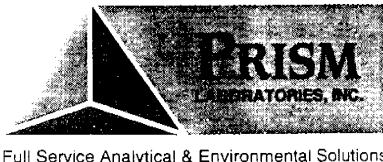
Parameter: TICs BY SEMIVOLATILE GC/MS
Method reference: 625/8270 Unit:
Result: see below
Date started: 03/11/99 Date finished: 03/12/99
Time started: 20:00 Analyst: HWC

Data for SEMI-VOLATILE ORGANICS BY 8270 ug/kg:

Component Name	Result	Component MDL
ACENAPHTHENE	Not detected	270.0
ACENAPHTHYLENE	Not detected	270.0
ANTHRACENE	Not detected	270.0
BENZO(A)ANTHRACENE	Not detected	270.0
BENZO(B)FLUORANTHENE	Not detected	270.0
BENZO(K)FLUORANTHENE	Not detected	270.0
BENZO(A)PYRENE	Not detected	270.0
BENZO(GHI)PERYLENE	Not detected	270.0
BIS(2-CHLOROETHOXY)METHANE	Not detected	270.0
BIS(2-CHLOROETHYL)ETHER	Not detected	270.0
BIS(2-CHLOROISOPROPYL)ETHER	Not detected	270.0
BIS(2-ETHYLHEXYL)PHTHALATE	Not detected	270.0
4-BROMOPHENYL PHENYL ETHER	Not detected	270.0
BUTYL BENZYL PHTHALATE	Not detected	270.0
4-CHLORO-3-METHYLPHENOL	Not detected	270.0

Lab Report

Mr. Greg Melia Sample I.D. AB22506 (continued)
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Full Service Analytical & Environmental Solutions

Data for SEMI-VOLATILE ORGANICS BY 8270 (continued):

Component Name	Result	Component MDL
2-CHLORONAPHTHALENE	Not detected	270.0
2-CHLOROPHENOL	Not detected	270.0
4-CHLOROPHENYL PHENYL ETHER	Not detected	270.0
CHRYSENE	Not detected	270.0
DIBENZO(A, H)ANTHRACENE	Not detected	270.0
DIBENZOFURAN	Not detected	270.0
DI-N-BUTYLPHTHALATE	Not detected	270.0
1, 2-DICHLOROBENZENE	Not detected	270.0
1, 3-DICHLOROBENZENE	Not detected	270.0
1, 4-DICHLOROBENZENE	Not detected	270.0
2, 4-DICHLOROPHENOL	Not detected	270.0
DIETHYL PHTHALATE	Not detected	270.0
2, 4-DIMETHYLPHENOL	Not detected	270.0
DIMETHYL PHTHALATE	Not detected	270.0
2, 4-DINITROPHENOL	Not detected	1350.0
2, 4-DINITROTOLUENE	Not detected	270.0
2, 6-DINITROTOLUENE	Not detected	270.0
DI-N-OCTYLPHTHALATE	Not detected	270.0
FLUORANTHENE	Not detected	270.0
FLUORENE	Not detected	270.0
HEXACHLOROBENZENE	Not detected	270.0
HEXACHLOROBUTADIENE	Not detected	270.0
HEXACHLOROCYCLOPENTADIENE	Not detected	270.0
HEXACHLOROETHANE	Not detected	270.0
INDENO(1, 2, 3-CD)PYRENE	Not detected	270.0
ISOPHORONE	Not detected	270.0
2-METHYL-4, 6-DINITROPHENOL	Not detected	1350.0
2-METHYL NAPHTHALENE	300	270.0
2-METHYL-PHENOL	Not detected	270.0
4-METHYL-PHENOL	Not detected	270.0
NAPHTHALENE	Not detected	270.0
NITROBENZENE	Not detected	270.0
2-NITROPHENOL	Not detected	270.0
4-NITROPHENOL	Not detected	1350.0
N-NITROSODIPHENYLAMINE	Not detected	270.0
N-NITROSODI-N-PROPYLAMINE	Not detected	270.0
PENTACHLOROPHENOL	Not detected	1350.0
PHENANTHRENE	650	270.0
PHENOL	Not detected	270.0
PYRENE	Not detected	270.0
1, 2, 4-TRICHLOROBENZENE	Not detected	270.0
2, 4, 5-TRICHLOROPHENOL	Not detected	270.0
2, 4, 6-TRICHLOROPHENOL	Not detected	270.0

Data for TICs BY SEMIVOLATILE GC/MS:

625/8270 Tentatively Identified Compounds (10-largest TICs):

<Identification Class>	<Closest Spectral Fit>	<Est. Conc.>
=====	=====	=====

Lab Report

Mr. Greg Melia Sample I.D. AB22506 (continued)
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March 15, 1999



Data for TICs BY SEMIVOLATILE GC/MS (continued):

Unknown aliphatic hydrocarbon	(Unknown)	1500 ug/L
Unknown aliphatic hydrocarbon	(Unknown)	1900 ug/L
Unknown aliphatic hydrocarbon	(Unknown)	2300 ug/L
Unknown aliphatic hydrocarbon	(Unknown)	3000 ug/L
Unknown aliphatic hydrocarbon	(Unknown)	1400 ug/L
Unknown aromatic hydrocarbon	(1, 2, 3, 5-tetrmethylbenzene)	1300ug/L
Unknown aromatic hydrocarbon	(Unknown)	2000ug/L
Unknown aromatic hydrocarbon	(2,6-dimethylundecane)	3500ug/L
Unknown aromatic hydrocarbon	(tetramethylpentadecane)	2400ug/L
Unknown aromatic hydrocarbon	(trimethyldodecane)	1100ug/L

Sample comments:

Project name: Amtrack (1040-98-110)
Sample extracted by CET.

If there are any questions regarding this data, please call.



Angela D. Overcash
Laboratory Director

Lab Report

From: NC Certification No. 402
SC Certification No. 99012
NC Drinking Water Cert. No. 37735
FL Certification No. E87519



Full Service Analytical & Environmental Solutions

March 15, 1999

To: Mr. Greg Melia
Chemical & Environmental Tech
102-A Woodwinds Industrial Ct
Cary, NC 27511
Project: Amtrack (1040-98-110)

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. AB22507 Customer Code: CET
Login Group #: 4865E5 Customer Reference: CET
Phone Number: (919)467-3090/fax(919)467-3515
Customer Sample I.D#: 156845 N05A
Sample collection date: 02/17/99 Time: 17:30
Lab submittal date: 03/10/99 Time: 10:30
Received by: KJE Validated by: ADO

Parameter: SEMI-VOLATILE ORGANICS BY 8270
Method reference: SW846-8270 Unit: ug/kg
Result: see below
Date started: 03/11/99 Date finished: 03/12/99
Time started: 20:46 Analyst: HWC

Parameter: TICs BY SEMIVOLATILE GC/MS
Method reference: 625/8270 Unit:
Result: see below
Date started: 03/11/99 Date finished: 03/12/99
Time started: 20:46 Analyst: HWC

Data for SEMI-VOLATILE ORGANICS BY 8270 ug/kg:

Component Name	Result	Component MDL
ACENAPHTHENE	Not detected	260.0
ACENAPHTHYLENE	Not detected	260.0
ANTHRACENE	Not detected	260.0
BENZO(A)ANTHRACENE	Not detected	260.0
BENZO(B)FLUORANTHENE	Not detected	260.0
BENZO(K)FLUORANTHENE	Not detected	260.0
BENZO(A)PYRENE	Not detected	260.0
BENZO(GHI)PERYLENE	Not detected	260.0
BIS(2-CHLOROETHOXY)METHANE	Not detected	260.0
BIS(2-CHLOROETHYL)ETHER	Not detected	260.0
BIS(2-CHLOROISOPROPYL)ETHER	Not detected	260.0
BIS(2-ETHYLHEXYL)PHTHALATE	Not detected	260.0
4-BROMOPHENYL PHENYL ETHER	Not detected	260.0
BUTYL BENZYL PHTHALATE	Not detected	260.0
4-CHLORO-3-METHYLPHENOL	Not detected	260.0

Lab Report

Mr. Greg Melia Sample I.D. AB22507 (continued)
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March 15, 1999



Data for SEMI-VOLATILE ORGANICS BY 8270 (continued):

Component Name	Result	Component MDL
2-CHLORONAPHTHALENE	Not detected	260.0
2-CHLOROPHENOL	Not detected	260.0
4-CHLOROPHENYL PHENYL ETHER	Not detected	260.0
CHRYSENE	Not detected	260.0
DIBENZO(A, H)ANTHRACENE	Not detected	260.0
DIBENZOFURAN	Not detected	260.0
DI-N-BUTYLPHTHALATE	Not detected	260.0
1, 2-DICHLOROBENZENE	Not detected	260.0
1, 3-DICHLOROBENZENE	Not detected	260.0
1, 4-DICHLOROBENZENE	Not detected	260.0
2, 4-DICHLOROPHENOL	Not detected	260.0
DIETHYL PHTHALATE	Not detected	260.0
2, 4-DIMETHYLPHENOL	Not detected	260.0
DIMETHYL PHTHALATE	Not detected	260.0
2, 4-DINITROPHENOL	Not detected	1300.0
2, 4-DINITROTOLUENE	Not detected	260.0
2, 6-DINITROTOLUENE	Not detected	260.0
DI-N-OCTYLPHTHALATE	Not detected	260.0
FLUORANTHENE	Not detected	260.0
FLUORENE	Not detected	260.0
HEXACHLOROBENZENE	Not detected	260.0
HEXACHLOROBUTADIENE	Not detected	260.0
HEXACHLOROCYCLOPENTADIENE	Not detected	260.0
HEXACHLOROETHANE	Not detected	260.0
INDENO(1, 2, 3-CD)PYRENE	Not detected	260.0
ISOPHORONE	Not detected	260.0
2-METHYL-4, 6-DINITROPHENOL	Not detected	1300.0
2-METHYL NAPHTHALENE	Not detected	260.0
2-METHYL-PHENOL	Not detected	260.0
4-METHYL-PHENOL	Not detected	260.0
NAPHTHALENE	Not detected	260.0
NITROBENZENE	Not detected	260.0
2-NITROPHENOL	Not detected	260.0
4-NITROPHENOL	Not detected	1300.0
N-NITROSODIPHENYLAMINE	Not detected	260.0
N-NITROSODI-N-PROPYLAMINE	Not detected	260.0
PENTACHLOROPHENOL	Not detected	1300.0
PHENANTHRENE	290	260.0
PHENOL	Not detected	260.0
PYRENE	Not detected	260.0
1, 2, 4-TRICHLOROBENZENE	Not detected	260.0
2, 4, 5-TRICHLOROPHENOL	Not detected	260.0
2, 4, 6-TRICHLOROPHENOL	Not detected	260.0

Data for TICs BY SEMIVOLATILE GC/MS:

625/8270 Tentatively Identified Compounds (10-largest TICs):

<Identification Class>	<Closest Spectral Fit>	<Est. Conc.>
=====	=====	=====

Lab Report

Mr. Greg Melia
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March 15, 1999

Sample I.D. AB22507 (continued)



Full Service Analytical & Environmental Solutions

Data for TICs BY SEMIVOLATILE GC/MS (continued):

Unknown aliphatic hydrocarbon	(Unknown)	1600	ug/L
Unknown aliphatic hydrocarbon	(Unknown)	1400	ug/L
Unknown aromatic hydrocarbon	(Unknown)	960	ug/L
Unknown aromatic hydrocarbon	(2,3,7-trimethyloctane)	1500	ug/L
Unknown aromatic hydrocarbon	(1-methylnaphthalene)	1300	ug/L
Unknown aromatic hydrocarbon	(2,7,10-trimethyldodecane)	1300	ug/L
Unknown aromatic hydrocarbon	(trimethylbenzene)	1100	ug/L
Unknown aromatic hydrocarbon	(Unknown)	1600	ug/L
Unknown aromatic hydrocarbon	(trimethylbenzene)	3400	ug/L
Unknown aromatic hydrocarbon	(tetramethylbenzene)	5700	ug/L
Unknown aromatic hydrocarbon	(tetramethylheptadecane)	2600	ug/L

Sample comments:

Project name: Amtrack (1040-98-110)

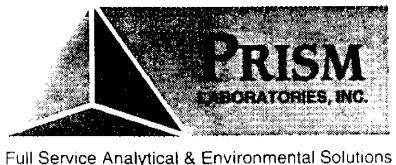
Sample extracted by CET.

If there are any questions regarding this data, please call.

Angela D. Overcash
Laboratory Director

Lab Report

From: NC Certification No. 402
SC Certification No. 99012
NC Drinking Water Cert. No. 37735
FL Certification No. E87519



Full Service Analytical & Environmental Solutions

March 15, 1999

To: Mr. Greg Melia
Chemical & Environmental Tech
102-A Woodwinds Industrial Ct
Cary, NC 27511
Project: Amtrack (1040-98-110)

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. AB22508 Customer Code: CET
Login Group #: 4865E5 Customer Reference: CET
Phone Number: (919)467-3090/fax(919)467-3515
Customer Sample I.D#: 156846 N05A
Sample collection date: 02/17/99 Time: 17:30
Lab submittal date: 03/10/99 Time: 10:30
Received by: KJE Validated by: ADO

Parameter: SEMI-VOLATILE ORGANICS BY 8270
Method reference: SW846-8270 Unit: ug/kg
Result: see below
Date started: 03/11/99 Date finished: 03/12/99
Time started: 21:31 Analyst: HWC

Parameter: TICs BY SEMIVOLATILE GC/MS
Method reference: 625/8270 Unit:
Result: see below
Date started: 03/11/99 Date finished: 03/12/99
Time started: 21:31 Analyst: HWC

Data for SEMI-VOLATILE ORGANICS BY 8270 ug/kg:

Component Name	Result	Component MDL
ACENAPHTHENE	Not detected	270.0
ACENAPHTHYLENE	Not detected	270.0
ANTHRACENE	Not detected	270.0
BENZO(A)ANTHRACENE	Not detected	270.0
BENZO(B)FLUORANTHENE	Not detected	270.0
BENZO(K)FLUORANTHENE	Not detected	270.0
BENZO(A)PYRENE	Not detected	270.0
BENZO(GHI)PERYLENE	Not detected	270.0
BIS(2-CHLOROETHOXY)METHANE	Not detected	270.0
BIS(2-CHLOROETHYL)ETHER	Not detected	270.0
BIS(2-CHLOROISOPROPYL)ETHER	Not detected	270.0
BIS(2-ETHYLHEXYL)PHTHALATE	Not detected	270.0
4-BROMOPHENYL PHENYL ETHER	Not detected	270.0
BUTYL BENZYL PHTHALATE	Not detected	270.0
4-CHLORO-3-METHYLPHENOL	Not detected	270.0

Lab Report

Mr. Greg Melia

Sample I.D. AB22508 (continued)

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Data for SEMI-VOLATILE ORGANICS BY 8270 (continued):

Component Name	Result	Component MDL
2-CHLORONAPHTHALENE	Not detected	270.0
2-CHLOROPHENOL	Not detected	270.0
4-CHLOROPHENYL PHENYL ETHER	Not detected	270.0
CHRYSENE	Not detected	270.0
DIBENZO(A, H)ANTHRACENE	Not detected	270.0
DIBENZOFURAN	Not detected	270.0
DI-N-BUTYLPHTHALATE	Not detected	270.0
1, 2-DICHLOROBENZENE	Not detected	270.0
1, 3-DICHLOROBENZENE	Not detected	270.0
1, 4-DICHLOROBENZENE	Not detected	270.0
2, 4-DICHLOROPHENOL	Not detected	270.0
DIETHYL PHTHALATE	Not detected	270.0
2, 4-DIMETHYLPHENOL	Not detected	270.0
DIMETHYL PHTHALATE	Not detected	270.0
2, 4-DINITROPHENOL	Not detected	1350.0
2, 4-DINITROTOLUENE	Not detected	270.0
2, 6-DINITROTOLUENE	Not detected	270.0
DI-N-OCTYLPHTHALATE	Not detected	270.0
FLUORANTHENE	Not detected	270.0
FLUORENE	Not detected	270.0
HEXACHLOROBENZENE	Not detected	270.0
HEXACHLOROBUTADIENE	Not detected	270.0
HEXACHLOROCYCLOPENTADIENE	Not detected	270.0
HEXACHLOROETHANE	Not detected	270.0
INDENO(1, 2, 3-CD)PYRENE	Not detected	270.0
ISOPHORONE	Not detected	270.0
2-METHYL-4, 6-DINITROPHENOL	Not detected	1350.0
2-METHYL NAPHTHALENE	Not detected	270.0
2-METHYL-PHENOL	Not detected	270.0
4-METHYL-PHENOL	Not detected	270.0
NAPHTHALENE	Not detected	270.0
NITROBENZENE	Not detected	270.0
2-NITROPHENOL	Not detected	270.0
4-NITROPHENOL	Not detected	1350.0
N-NITROSODIPHENYLAMINE	Not detected	270.0
N-NITROSODI-N-PROPYLAMINE	Not detected	270.0
PENTACHLOROPHENOL	Not detected	1350.0
PHENANTHRENE	Not detected	270.0
PHENOL	Not detected	270.0
PYRENE	Not detected	270.0
1, 2, 4-TRICHLOROBENZENE	Not detected	270.0
2, 4, 5-TRICHLOROPHENOL	Not detected	270.0
2, 4, 6-TRICHLOROPHENOL	Not detected	270.0

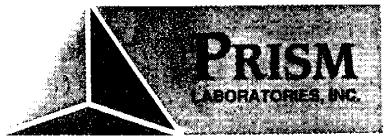
Data for TICs BY SEMIVOLATILE GC/MS:

625/8270 Tentatively Identified Compounds (10-largest TICs):

<Identification Class>	<Closest Spectral Fit>	<Est. Conc.>
=====	=====	=====

Lab Report

Mr. Greg Melia Sample I.D. AB22508 (continued)
Page: 3
March 15, 1999



Full Service Analytical & Environmental Solutions

Data for TICs BY SEMIVOLATILE GC/MS (continued):

Unknown (Unknown) 220 ug/L

Sample comments:

Project name: Amtrack (1040-98-110)
Sample extracted by CET.

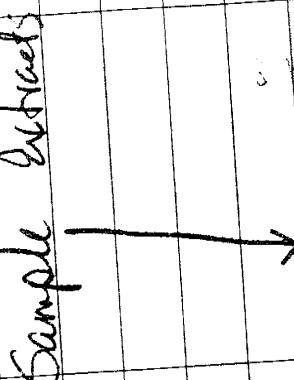
If there are any questions regarding this data, please call.

1

Angela D. Overcash
Laboratory Director

Chemical & Environmental Services
 102-A Woodwinds Industrial Ct. Cary, NC 27511
 (919) 467-3090 FAX: (919) 467-3515

2nd Priority

ANALYSES REQUIRED									
PROJECT NO:		PROJECT NAME:		SAMPLE I.D.		SAMPLE MATRIX		# OF CONTAINERS	
CET		Antrack (1040-98-110)		156842 D-3A		8-12 S		1 X	
ATTENTION:		PRINTED NAME		156843 D-5A		4-6 S		1 X	
COLLECTED BY: (Signature)		PHONE:		156844 D-5A		8-10 S		1 X	
ADDRESS:		FAX:		156845 NOSA		7 S		1 X	
JENT NAME:		Turnaround Time:		156846 NOSA		10-12 S		1 X	
ADDRESS:		<input type="checkbox"/> Normal (2 weeks) <input type="checkbox"/> Rush (1 week)* <input type="checkbox"/> Rush (48 hours)* <input type="checkbox"/> Rush (24 hours)*							
BILL TO:									
PURCHASE ORDER NO:									
PRESERVATIVES									
ASCORBIC ACID									
H ₂ SO ₄									
ZnO									
Na ₂ S ₂ O ₃									
None									
REMARKS									
<i>Sample Insects</i> 									
CET SAMPLE #	DATE	TIME	SAMPLE TYPE COM	SAMPLE I.D.	SAMPLE MATRIX	# OF CONTAINERS			
22504	4/1/99	14:00	X	156842 D-3A	8-12 S	1			
22505	1/1/99	16:15	X	156843 D-5A	4-6 S	1			
22506	1/1/99	16:15	X	156844 D-5A	8-10 S	1			
22507	1/1/99	17:30	X	156845 NOSA	7 S	1			
22508	1/1/99	17:30	X	156846 NOSA	10-12 S	1			
RELINQUISHED BY (Signature) DATE TIME RECEIVED BY (Signature) DATE TIME RECEIVED BY (Signature) DATE TIME June 19th 3/19/99 11:00 RECEIVED FOR LABORATORY BY: DATE TIME RELINQUISHED BY (Signature) DATE TIME <i>See enclosed sheet for information</i> 3/19/99 10:20 <i>for extraction info</i> 3/19/99 10:20 486565									

*Rush work requires laboratory approval prior to sample submission. Additional charges may apply.

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

METHOD REFERENCES

Federal Register, Vol. 59, 40 CFR Part 136.3, January 31, 1994

--Metals, Inorganics, and Organics for groundwater and wastewater

Federal Register, Vol. 56, 40 CFR Parts 141-143, January 30, 1991

--Metals, Inorganics, and Organics for drinking water

"Groundwater Section Guidelines for the Investigation and Remediation of Soils and Groundwater", NCDEHNR, DEM, March 1993.

--High Fraction Hydrocarbon and Low Fraction Hydrocarbon for groundwater and soil

SW-846, Third Edition, Revision I, July 1992

--Inorganics and Organics in soil or sludges. Metals in soil, sludge, or groundwater.
(Metals in groundwater are digested by **Method 3030C, Standard Methods, 18th Edition**)

40 CFR Part 261, Appendix II and III

--Toxic Characteristic Leaching Procedure

Standard Methods, 18th Edition, 1992

--Total and Fecal Coliform in wastewater, streams, and lakes

Received: 02/23/99

Results by Sample

SAMPLE ID 156842 D-3A 81-121 FRACTION 01A TEST CODE EPHNC NAME EXTRACTABLE PHC
Date & Time Collected 02/17/99 14:00:00 Category SOIL

EXTRACTABLE PETROLEUM HYDROCARBONS

	REPORTING	
	RESULT	LIMIT
C9-C18 Aliphatics	<u>ND</u>	<u>35</u>
C19-C36 Aliphatics	<u>ND</u>	<u>25</u>
C11-C22 Aromatics	<u>ND</u>	<u>13</u>

	SURROGATES	%RECOVERY	SURROGATE	LIMITS
Aliphatic Surrogate	<u>72</u>	<u>40</u>	-	<u>140</u>
Aliphatic Fractionation Surrogate	<u>65</u>	<u>40</u>	-	<u>140</u>
Aromatic Surrogate	<u>59</u>	<u>40</u>	-	<u>140</u>
Aromatic Fractionation Surrogate	<u>99</u>	<u>40</u>	-	<u>140</u>

Notes and Definitions for this Report:

EXTRACTED 02/24/99
DATE RUN 03/02/99
ANALYST CK
INSTRUMENT HP 7
DIL. FACTOR: 1
UNITS mg/Kg
MATRIX: _____
DRY WEIGHT: 73.0

ND = not detected at detection limit

D = diluted out

INT = matrix interference

Hydrocarbon Range data exclude concentrations of surrogate(s) eluting in that range

Hydrocarbon Range data are unadjusted for target analytes

Received: 02/23/99

Results by Sample

SAMPLE ID 156843 D-5A 4¹-6¹FRACTION 02A TEST CODE EPHNC NAME EXTRACTABLE PHCDate & Time Collected 02/17/99 16:15:00Category SOILEXTRACTABLE PETROLEUM HYDROCARBONS

	REPORTING	
	RESULT	LIMIT
C9-C18 Aliphatics	<u>ND</u>	<u>35</u>
C19-C36 Aliphatics	<u>ND</u>	<u>25</u>
C11-C22 Aromatics	<u>ND</u>	<u>13</u>

Surrogates	%Recovery	Surrogate	Limits
Aliphatic Surrogate	<u>76</u>	40	- 140
Aliphatic Fractionation Surrogate	<u>73</u>	40	- 140
Aromatic Surrogate	<u>65</u>	40	- 140
Aromatic Fractionation Surrogate	<u>92</u>	40	- 140

Notes and Definitions for this Report:

EXTRACTED 02/24/99
DATE RUN 03/02/99
ANALYST CK
INSTRUMENT HP 7
DIL. FACTOR: 1
UNITS mg/Kg
MATRIX:
DRY WEIGHT: 74.6

ND = not detected at detection limit

D = diluted out

INT = matrix interference

Hydrocarbon Range data exclude concentrations of surrogate(s) eluting in that range

Hydrocarbon Range data are unadjusted for target analytes

Received: 02/23/99

Results by Sample

SAMPLE ID 156844 D-5A 8'-10'FRACTION 03A TEST CODE EPHNC NAME EXTRACTABLE PHCDate & Time Collected 02/17/99 16:15:00Category SOILEXTRACTABLE PETROLEUM HYDROCARBONS

	REPORTING	
	RESULT	LIMIT
C9-C18 Aliphatics	<u>472</u>	<u>35</u>
C19-C36 Aliphatics	<u>ND</u>	<u>25</u>
C11-C22 Aromatics	<u>72</u>	<u>13</u>

Surrogates	%Recovery	Surrogate Limits		
Aliphatic Surrogate	<u>67</u>	40	-	140
Aliphatic Fractionation Surrogate	<u>INT</u>	40	-	140
Aromatic Surrogate	<u>60</u>	40	-	140
Aromatic Fractionation Surrogate	<u>117</u>	40	-	140

Notes and Definitions for this Report:

EXTRACTED 02/24/99
DATE RUN 03/02/99
ANALYST CK
INSTRUMENT HP 7
DIL. FACTOR: 1
UNITS mg/Kg
MATRIX:
DRY WEIGHT: 71.5

ND = not detected at detection limit

D = diluted out

INT = matrix interference

Hydrocarbon Range data exclude concentrations of surrogate(s) eluting in that range

Hydrocarbon Range data are unadjusted for target analytes

Appendix III

Groundwater Samples Taken from Areas with Suspected Diesel USTs

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

JAN 10 1999

FINAL REPORT OF ANALYSES

S & ME, INC /NC DOT
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/16/99

NCDOT AMTRAK STATION #9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156821 SAMPLE ID- D-3A
DATE SAMPLED- 02/17/99
DATE RECEIVED- 02/19/99 SAMPLER- HAYTHEM KASEM
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- GW
TIME SAMPLED- 1430
RECEIVED BY- HLH

Page 1 of 3

PROJECT NAME : NCDOT/AM.STATN

ANALYSIS	METHOD	SAMPLE PREP	ANALYSIS	BY	RESULT UNITS	PQL
MADEP EPH / COMBINED	MADEP EPH	02/24/99 TEL	03/02/99 TEL			
C9-C18 ALIPHATICS	MADEP EPH				135 ug/L	10
C19-C36 ALIPHATICS	MADEP EPH				< 100 ug/L	10
C11-C22 AROMATICS	MADEP EPH				< 100 ug/L	10
SURROGATE#1 % RECOVERY	MADEP EPH				39 percent	
SURROGATE#2 % RECOVERY	MADEP EPH				84 percent	
FRACTION.SURR#1 % RECOVERY	MADEP EPH				72 percent	
FRACTION.SURR#2 % RECOVERY	MADEP EPH				116 percent	
MADEP VPH / COMBINED	MADEP VPH	02/25/99	JBR			
C5-C8 ALIPHATICS	MADEP VPH				< 100 ug/L	10
C9-C12 ALIPHATICS	MADEP VPH				< 100 ug/L	10
C9-C10 AROMATICS	MADEP VPH				< 100 ug/L	10
SURROGATE % RECOVERY - PID	MADEP VPH				103 percent	
SURROGATE % RECOVERY - FID	MADEP VPH				96.4 percent	
PURGEABLE AROMATIC EPA 602	EPA 602	02/23/99	ALT			
BENZENE	EPA 602				< 1.0 ug/L	1.
CHLOROBENZENE	EPA 602				< 1.0 ug/L	1.
1, 2-DICHLOROBENZENE	EPA 602				< 1.0 ug/L	1.
1, 3-DICHLOROBENZENE	EPA 602				< 1.0 ug/L	1.
1, 4-DICHLOROBENZENE	EPA 602				< 1.0 ug/L	1.
ETHYLBENZENE	EPA 602				< 1.0 ug/L	1.

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 2 of 3

PROJECT NAME : NCDOT/AM.STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156821

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT UNITS	PQL
TOLUENE	EPA 602			< 1.0 ug/L		1.0
TOTAL XYLEMES	EPA 602			< 1.0 ug/L		1.0
SURROGATE	EPA 602			102 percent		-
BASE NEUTRAL/ACIDS	EPA 625	02/23/99	AEK 03/12/99 ***			
ACENAPHTHENE	EPA 625			* ug/L		
ACENAPHTHYLENE	EPA 625			* ug/L		
ANTHRACENE	EPA 625			* ug/L		
BENZIDINE	EPA 625			* ug/L		
BENZO (a) ANTHRACENE	EPA 625			* ug/L		
BENZO (b) FLUORANTHENE	EPA 625			* ug/L		
BENZO (k) FLUORANTHENE	EPA 625			* ug/L		
BENZO (g, h, i) PERYLENE	EPA 625			* ug/L		
BENZO (a) PYRENE	EPA 625			* ug/L		
bis-(2-CHLOROETHYL) ETHER	EPA 625			* ug/L		
bis-(2-CHLOROETHOXY) METHANE	EPA 625			* ug/L		
bis-(2-CHLOROISOPROPYL) ETHER	EPA 625			* ug/L		
bis-(2-ETHYLHEXYL) PHTHALATE	EPA 625			* ug/L		
4-BROMOPHENYL PHENYL ETHER	EPA 625			* ug/L		
BUTYL BENZYL PHTHALATE	EPA 625			* ug/L		
2-CHLORONAPHTHALENE	EPA 625			* ug/L		
4-CHLOROPHENYL PHENYL ETHER	EPA 625			* ug/L		
CHRYSENE	EPA 625			* ug/L		
DIBENZO (a, h) ANTHRACENE	EPA 625			* ug/L		
di-n-BUTYLPHthalate	EPA 625			* ug/L		
1,2-DICHLOROBENZENE	EPA 625			* ug/L		
1,3-DICHLOROBENZENE	EPA 625			* ug/L		
1,4-DICHLOROBENZENE	EPA 625			* ug/L		
3,3'-DICHLOROBENZIDINE	EPA 625			* ug/L		
DIETHYL PHTHALATE	EPA 625			* ug/L		
DIMETHYL PHTHALATE	EPA 625			* ug/L		
2,4-DINTROTOLUENE	EPA 625			* ug/L		

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 3 of 3

PROJECT NAME : NCDOT/AM.STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156821

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
2,6-DINITROTOLUENE	EPA 625				*	ug/L	
di-n-OCTYLPHthalate	EPA 625				*	ug/L	
FLUORANTHENE	EPA 625				*	ug/L	
FLUORENE	EPA 625				*	ug/L	
HEXACHLOROBENZENE	EPA 625				*	ug/L	
HEXACHLOROBUTADIENE	EPA 625				*	ug/L	
HEXACHLOROCYCLOPENTADIENE	EPA 625				*	ug/L	
HEXACHLOROETHANE	EPA 625				*	ug/L	
INDENO(1,2,3-cd) PYRENE	EPA 625				*	ug/L	
ISOPHORONE	EPA 625				*	ug/L	
NAPHTHALENE	EPA 625				*	ug/L	
NITROBENZENE	EPA 625				*	ug/L	
N-NITROSODIMETHYLAMINE	EPA 625				*	ug/L	
N-NITROSODIPHENYLAMINE	EPA 625				*	ug/L	
N-NITROSODI-n-PROPYLAMINE	EPA 625				*	ug/L	
PHENANTHRENE	EPA 625				*	ug/L	
PYRENE	EPA 625				*	ug/L	
1,2,4-TRICHLOROBENZENE	EPA 625				*	ug/L	
4-CHLORO-3-METHYLPHENOL	EPA 625				*	ug/L	
2-CHLOROPHENOL	EPA 625				*	ug/L	
2,4-DICHLOROPHENOL	EPA 625				*	ug/L	
2,4-DIMETHYLPHENOL	EPA 625				*	ug/L	
2,4-DINITROPHENOL	EPA 625				*	ug/L	
2-METHYL-4,6-DINITROPHENOL	EPA 625				*	ug/L	
2-NITROPHENOL	EPA 625				*	ug/L	
4-NITROPHENOL	EPA 625				*	ug/L	
PENTACHLOROPHENOL	EPA 625				*	ug/L	
PHENOL	EPA 625				*	ug/L	
2,4,6-TRICHLOROPHENOL	EPA 625				*	ug/L	
10 HIGHEST PEAKS	MASS SPEC			03/12/99 ***	*		

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

* PLEASE REFER TO ENCLOSED REPORT FROM PRISM LABORATORIES FOR EPA 625 RESULTS.
PLEASE REFER TO ENCLOSED REPORT FROM TOXICON FOR MADEP-EPH RESULTS.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

Min Fetzberger

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC /NC DOT
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/16/99

NCDOT AMTRAK STATION #9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156822 SAMPLE ID- D-5A
DATE SAMPLED- 02/18/99
DATE RECEIVED- 02/19/99 SAMPLER- HAYTHEM KASEM
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- GW
TIME SAMPLED- 1100
RECEIVED BY- HLH

Page 1 of 3

PROJECT NAME : NCDOT/AM.STATN

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
MADEP VPH	MADEP VPH		02/25/99	JBR			
C5-C8 ALIPHATICS	MADEP VPH			92	J	ug/L	100
C9-C12 ALIPHATICS	MADEP VPH				658	ug/L	100
C9-C10 AROMATICS	MADEP VPH				374	ug/L	100
SURROGATE % RECOVERY - PID	MADEP VPH				116	percent	
SURROGATE % RECOVERY - FID	MADEP VPH				119	percent	
PURGEABLE AROMATIC EPA 602	EPA 602		02/23/99	ALT			
BENZENE	EPA 602				< 1.0	ug/L	1.0
CHLOROBENZENE	EPA 602				< 1.0	ug/L	1.0
1, 2-DICHLOROBENZENE	EPA 602				< 1.0	ug/L	1.0
1, 3-DICHLOROBENZENE	EPA 602				< 1.0	ug/L	1.0
1, 4-DICHLOROBENZENE	EPA 602				< 1.0	ug/L	1.0
ETHYLBENZENE	EPA 602				1.1	ug/L	1.0
TOLUENE	EPA 602				< 1.0	ug/L	1.0
TOTAL XYLEMES	EPA 602				1.8	ug/L	1.0
SURROGATE	EPA 602				86.2	percent	-
BASE NEUTRAL/ACIDS	EPA 625	02/23/99	AEK 03/12/99	***			
ACENAPHTHENE	EPA 625				*	ug/L	
ACENAPHTHYLENE	EPA 625				*	ug/L	
ANTHRACENE	EPA 625				*	ug/L	
BENZIDINE	EPA 625				*	ug/L	

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 2 of 3

PROJECT NAME : NCDOT/AM.STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156822

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
BENZO(a) ANTHRACENE	EPA 625				*	ug/L	
BENZO(b) FLUORANTHENE	EPA 625				*	ug/L	
BENZO(k) FLUORANTHENE	EPA 625				*	ug/L	
BENZO(g,h,i) PERYLENE	EPA 625				*	ug/L	
BENZO(a) PYRENE	EPA 625				*	ug/L	
bis-(2-CHLOROETHYL) ETHER	EPA 625				*	ug/L	
bis-(2-CHLOROETHOXY) METHANE	EPA 625				*	ug/L	
bis-(2-CHLOROISOPROPYL) ETHER	EPA 625				*	ug/L	
bis-(2-ETHYLHEXYL) PHTHALATE	EPA 625				*	ug/L	
4-BROMOPHENYL PHENYL ETHER	EPA 625				*	ug/L	
BUTYL BENZYL PHTHALATE	EPA 625				*	ug/L	
2-CHLORONAPHTHALENE	EPA 625				*	ug/L	
4-CHLOROPHENYL PHENYL ETHER	EPA 625				*	ug/L	
CHRYSENE	EPA 625				*	ug/L	
DIBENZO(a, h) ANTHRACENE	EPA 625				*	ug/L	
di-n-BUTYLPHTHALATE	EPA 625				*	ug/L	
1, 2-DICHLOROBENZENE	EPA 625				*	ug/L	
1, 3-DICHLOROBENZENE	EPA 625				*	ug/L	
1, 4-DICHLOROBENZENE	EPA 625				*	ug/L	
3, 3'-DICHLOROBENZIDINE	EPA 625				*	ug/L	
DIETHYL PHTHALATE	EPA 625				*	ug/L	
DIMETHYL PHTHALATE	EPA 625				*	ug/L	
2, 4-DINTROTOLUENE	EPA 625				*	ug/L	
2, 6-DINITROTOLUENE	EPA 625				*	ug/L	
di-n-OCTYLPHTHALATE	EPA 625				*	ug/L	
FLUORANTHENE	EPA 625				*	ug/L	
FLUORENE	EPA 625				*	ug/L	
HEXACHLOROBENZENE	EPA 625				*	ug/L	
HEXACHLOROBUTADIENE	EPA 625				*	ug/L	
HEXACHLOROCYCLOPENTADIENE	EPA 625				*	ug/L	
HEXACHLOROETHANE	EPA 625				*	ug/L	

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 3 of 3

PROJECT NAME : NCDOT/AM.STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156822

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
INDENO (1, 2, 3-cd) PYRENE	EPA 625				*	ug/L	
ISOPHORONE	EPA 625				*	ug/L	
NAPHTHALENE	EPA 625				*	ug/L	
NITROBENZENE	EPA 625				*	ug/L	
N-NITROSODIMETHYLAMINE	EPA 625				*	ug/L	
N-NITROSODIPHENYLAMINE	EPA 625				*	ug/L	
N-NITROSODI-n-PROPYLAMINE	EPA 625				*	ug/L	
PHENANTHRENE	EPA 625				*	ug/L	
PYRENE	EPA 625				*	ug/L	
1, 2, 4-TRICHLOROBENZENE	EPA 625				*	ug/L	
4-CHLORO-3-METHYLPHENOL	EPA 625				*	ug/L	
2-CHLOROPHENOL	EPA 625				*	ug/L	
2, 4-DICHLOROPHENOL	EPA 625				*	ug/L	
2, 4-DIMETHYLPHENOL	EPA 625				*	ug/L	
2, 4-DINITROPHENOL	EPA 625				*	ug/L	
2-METHYL-4, 6-DINITROPHENOL	EPA 625				*	ug/L	
2-NITROPHENOL	EPA 625				*	ug/L	
4-NITROPHENOL	EPA 625				*	ug/L	
PENTACHLOROPHENOL	EPA 625				*	ug/L	
PHENOL	EPA 625				*	ug/L	
2, 4, 6-TRICHLOROPHENOL	EPA 625				*	ug/L	
10 HIGHEST PEAKS	MASS SPEC			03/12/99 ***	*		

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

* PLEASE REFER TO ENCLOSED REPORT FROM PRISM LABORATORIES FOR EPA 625 RESULTS.
NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

Jenice Lutzenberger

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

METHOD REFERENCES

Federal Register, Vol. 59, 40 CFR Part 136.3, January 31, 1994

--Metals, Inorganics, and Organics for groundwater and wastewater

Federal Register, Vol. 56, 40 CFR Parts 141-143, January 30, 1991

--Metals, Inorganics, and Organics for drinking water

"Groundwater Section Guidelines for the Investigation and Remediation of Soils and Groundwater", NCDEHNR, DEM, March 1993.

--High Fraction Hydrocarbon and Low Fraction Hydrocarbon for groundwater and soil

SW-846, Third Edition, Revision I, July 1992

--Inorganics and Organics in soil or sludges. Metals in soil, sludge, or groundwater.
(Metals in groundwater are digested by **Method 3030C, Standard Methods, 18th Edition**)

40 CFR Part 261, Appendix II and III

--Toxic Characteristic Leaching Procedure

Standard Methods, 18th Edition, 1992

--Total and Fecal Coliform in wastewater, streams, and lakes

VPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date 1/29/99

Calibration Ranges and Limits

Range	MDL	ML	RL
C5 - C8 Aliphatics	0.731 ug/L	2.32 ug/L	100 ug/L
C9 - C12 Aliphatics	0.365 ug/L	1.16 ug/L	100 ug/L
C9 - C10 Aromatics	0.739 ug/L	2.35 ug/L	100 ug/L

NOTE: Please include units as appropriate

Method of Quantitation (circle one): Curve or Average Response Factor

Calibration Concentration Levels

Range	Levels	CCC
C5 - C8 Aliphatics	30 ngs	0.9982
	60 ngs	
	240 ngs	
	300 ngs	
	450 ngs	
	750 ngs	
C9 - C12 Aliphatics	10 ngs	0.9960
	20 ngs	
	40 ngs	
	60 ngs	
	80 ngs	
	100 ngs	
	150 ngs	
	250 ngs	
C9 - C10 Aromatics	10 ngs	0.9952
	20 ngs	
	40 ngs	
	60 ngs	
	80 ngs	
	100 ngs	
	250 ngs	
	400 ngs	

NOTE: Please include units as appropriate

Calibration Check Date 3/3/99

Calibration Check

Range	Level	R/SD
C5 - C8 Aliphatics	251	16.3
C9 - C12 Aliphatics	97.4	2.6
C9 - C10 Aromatics	90.9	9.1

MDL = Method Detection Level

ML = Minimum Limit

RL = Reporting Limit

RPD = Relative Percent Difference

% RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

QC Date:

3/3/99

	SP-153	SP-152	SP-151
	Average	Range	SD
Percent Recovery - Fortified Blank (Spike) - PID			108
Relative Percent Difference - PID Duplicate			NA
Percent Recovery - Fortified Blank (Spike) - FID	83.0	72.9	
Relative Percent Difference - FID Duplicate	NA	NA	

156823 DUP

VPH Laboratory Reporting Form

Calibration Specific Information

Initial Calibration Date 1/29/99

Calibration Ranges and Limits

Range	MDL	ML	RL
C5 - C8 Aliphatics	0.073 mg/Kg	0.232 mg/Kg	10.0 mg/Kg
C9 - C12 Aliphatics	0.036 mg/Kg	0.114 mg/Kg	10.0 mg/Kg
C9 - C10 Aromatics	0.074 mg/Kg	0.235 mg/Kg	10.0 mg/Kg

NOTE: Please include units as appropriate

Method of Quantitation: Curve

Calibration Concentration Levels

Range	Levels	CCC
C5 - C8 Aliphatics	30 ngs	0.9982
	60 ngs	
	240 ngs	
	300 ngs	
	450 ngs	
	750 ngs	
C9 - C12 Aliphatics	10 ngs	0.9960
	20 ngs	
	40 ngs	
	60 ngs	
	80 ngs	
	100 ngs	
	150 ngs	
	250 ngs	
C9 - C10 Aromatics	10 ngs	0.9952
	20 ngs	
	40 ngs	
	60 ngs	
	80 ngs	
	100 ngs	
	250 ngs	
	400 ngs	

NOTE: Please include units as appropriate

Calibration Check Date 2/25/99

Calibration Check

Sample	Level	RPD
C5 - C8 Aliphatics	211	29.7
C9 - C12 Aliphatics	86.5	13.5
C9 - C10 Aromatics	95.7	4.3

MDL = Method Detection Level

ML = Minimum Limit

RL = Reporting Limit

RPD = Relative Percent Difference

% RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

QC Date:

2/25/99

	COLLECTED	TESTED	ACCEPTED
	NUMBER	NUMBER	NUMBER
Percent Recovery - Fortified Blank (Spike) - PID			107
Relative Percent Difference - PID Duplicate			0.49
Percent Recovery - Fortified Blank (Spike) - FID	77.3	71.7	
Relative Percent Difference - FID Duplicate	NA	0.71	

156573 dup

VPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date 1/29/99

Calibration Ranges and Limits

Range	MDL	ML	RL
C5 - C8 Aliphatics	0.073 mg/Kg	0.232 mg/Kg	10.0 mg/Kg
C9 - C12 Aliphatics	0.036 mg/Kg	0.114 mg/Kg	10.0 mg/Kg
C9 - C10 Aromatics	0.074 mg/Kg	0.235 mg/Kg	10.0 mg/Kg

NOTE: Please include units as appropriate

Method of Quantitation: Curve

Calibration Concentration Levels

Range	Levels	CCC
C5 - C8 Aliphatics	30 ngs	0.9982
	60 ngs	
	240 ngs	
	300 ngs	
	450 ngs	
	750 ngs	
C9 - C12 Aliphatics	10 ngs	0.9960
	20 ngs	
	40 ngs	
	60 ngs	
	80 ngs	
	100 ngs	
	150 ngs	
C9 - C10 Aromatics	250 ngs	0.9952
	10 ngs	
	20 ngs	
	40 ngs	
	60 ngs	
	80 ngs	
	100 ngs	

NOTE: Please include units as appropriate

Calibration Check Date 2/25/99

Calibration Check

Range	Level	RPD
C5 - C8 Aliphatics	211	29.7
C9 - C12 Aliphatics	86.5	13.5
C9 - C10 Aromatics	95.7	4.3

MDL = Method Detection Level

ML = Minimum Limit

RL = Reporting Limit

RPD = Relative Percent Difference

% RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

QC Date:

2/25/99

	ANALYST		SPECIES
	ANALYST A	ANALYST B	
Percent Recovery - Fortified Blank (Spike) - PID			107
Relative Percent Difference - PID Duplicate			0.49
Percent Recovery - Fortified Blank (Spike) - FID	77.3	71.7	
Relative Percent Difference - FID Duplicate	NA	0.71	

156573 dup

Page 7

TOXIKON CORP.

REPORT

Work Order # 99-02-400

Received: 02/23/99

Results by Sample

SAMPLE ID 156821 D-3A

FRACTION 06A TEST CODE EPHNC NAME EXTRACTABLE PHC

Date & Time Collected 02/17/99 14:30:00

Category WATER

EXTRACTABLE PETROLEUM HYDROCARBONS

		REPORTING	
	RESULT	LIMIT	
C9-C18 Aliphatics	<u>135</u>	<u>100</u>	
C19-C36 Aliphatics	<u>ND</u>	<u>100</u>	
C11-C22 Aromatics	<u>ND</u>	<u>100</u>	
Surrogates	%Recovery	Surrogate Limits	
Aliphatic Surrogate	<u>39</u>	40	-
Aliphatic Fractionation Surrogate	<u>84</u>	40	-
Aromatic Surrogate	<u>72</u>	40	-
Aromatic Fractionation Surrogate	<u>116</u>	40	-
140	140	140	

Notes and Definitions for this Report:

EXTRACTED 02/24/99
DATE RUN 03/02/99
ANALYST CK
INSTRUMENT HP 7
DIL. FACTOR: 1
UNITS ug/L
MATRIX: _____
DRY WEIGHT: _____

ND = not detected at detection limit

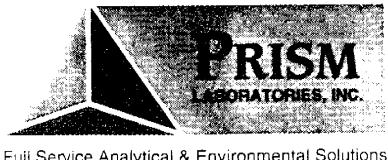
D = diluted out

INT = matrix interference

Hydrocarbon Range data exclude concentrations of surrogate(s) eluting in that range
Hydrocarbon Range data are unadjusted for target analytes

Lab Report

From: NC Certification No. 402
SC Certification No. 99012
NC Drinking Water Cert. No. 37735
FL Certification No. E87519



Full Service Analytical & Environmental Solutions

March 15, 1999

To: Mr. Greg Melia
Chemical & Environmental Tech
102-A Woodwinds Industrial Ct
Cary, NC 27511
Project: Amtrack (1040-98-110)

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. AB22477 Customer Code: CET
Login Group #: 4858E4 Customer Reference: CET
Phone Number: (919)467-3090/fax(919)467-3515
Customer Sample I.D#: 156821-D3A
Sample collection date: 02/17/99 Time: 14:30
Lab submittal date: 03/10/99 Time: 10:30
Received by: KJE Validated by: ADO

Parameter: SEMI-VOLATILE ORGANICS BY 625
Method reference: EPA 625 Unit: ug/L
Result: see below
Date started: 03/12/99 Date finished: 03/12/99
Time started: 01:10 Analyst: HWC

Parameter: TICs BY SEMIVOLATILE GC/MS
Method reference: 625/8270 Unit:
Result: see below
Date started: 03/12/99 Date finished: 03/12/99
Time started: 01:10 Analyst: HWC

Data for SEMI-VOLATILE ORGANICS BY 625 ug/L:

Component Name	Result	Component MDL
ACENAPHTHENE	Not detected	10
ACENAPHTHYLENE	Not detected	10
ANTHRACENE	Not detected	10
BENZO(A)ANTHRACENE	Not detected	10
BENZO(B)FLUORANTHENE	Not detected	10
BENZO(K)FLUORANTHENE	Not detected	10
BENZO(A)PYRENE	Not detected	10
BENZO(GHI)PERYLENE	Not detected	10
BIS(2-CHLOROETHOXY)METHANE	Not detected	10
BIS(2-CHLOROETHYL)ETHER	Not detected	10
BIS(2-CHLOROISOPROPYL)ETHER	Not detected	10
BIS(2-ETHYLHEXYL)PHTHALATE	Not detected	10
4-BROMOPHENYL PHENYL ETHER	Not detected	10
BUTYL BENZYL PHTHALATE	Not detected	10
4-CHLORO-3-METHYLPHENOL	Not detected	10

Lab Report

Mr. Greg Melia
Page: 2
March 15, 1999

Sample I.D. AB22477 (continued)



Full Service Analytical & Environmental Solutions

Data for SEMI-VOLATILE ORGANICS BY 625 (continued):

Component Name	Result	Component MDL
2-CHLORONAPHTHALENE	Not detected	10
2-CHLOROPHENOL	Not detected	10
4-CHLOROPHENYL PHENYL ETHER	Not detected	10
CHRYSENE	Not detected	10
DIBENZO(A, H)ANTHRACENE	Not detected	10
DI-N-BUTYLPHTHALATE	Not detected	10
1, 2-DICHLOROBENZENE	Not detected	10
1, 3-DICHLOROBENZENE	Not detected	10
1, 4-DICHLOROBENZENE	Not detected	10
2, 4-DICHLOROPHENOL	Not detected	10
DIETHYL PHTHALATE	Not detected	10
2, 4-DIMETHYLPHENOL	Not detected	10
DIMETHYL PHTHALATE	Not detected	10
2, 4-DINITROPHENOL	Not detected	50
2, 4-DINITROTOLUENE	Not detected	10
2, 6-DINITROTOLUENE	Not detected	10
DI-N-OCTYLPHTHALATE	Not detected	10
FLUORANTHENE	Not detected	10
FLUORENE	Not detected	10
HEXACHLOROBENZENE	Not detected	10
HEXACHLOROBUTADIENE	Not detected	10
HEXACHLOROCYCLOPENTADIENE	Not detected	10
HEXACHLOROETHANE	Not detected	10
INDENO(1, 2, 3-CD)PYRENE	Not detected	10
ISOPHORONE	Not detected	10
2-METHYL-4, 6-DINITROPHENOL	Not detected	50
NAPHTHALENE	Not detected	10
NITROBENZENE	Not detected	10
2-NITROPHENOL	Not detected	10
4-NITROPHENOL	Not detected	50
N-NITROSODIPHENYLAMINE	Not detected	10
N-NITROSODI-N-PROPYLAMINE	Not detected	10
PENTACHLOROPHENOL	Not detected	50
PHENANTHRENE	Not detected	10
PHENOL	Not detected	10
PYRENE	Not detected	10
1, 2, 4-TRICHLOROBENZENE	Not detected	10
2, 4, 6-TRICHLOROPHENOL	Not detected	10
BENZIDINE	Not detected	100
1, 2-DIPHENYLHYDRAZINE	Not detected	100

Data for TICs BY SEMIVOLATILE GC/MS:

625/8270 Tentatively Identified Compounds (10-largest TICs):

<Identification Class>	<Closest Spectral Fit>	<Est. Conc.>
=====	=====	=====
Unknown	(Unknown)	22 ug/L
Unknown	(Unknown)	8 ug/L

Lab Report

Mr. Greg Melia Sample I.D. AB22477 (continued)
Page: 3
March 15, 1999



Full Service Analytical & Environmental Solutions

Sample comments:

Project name: Amtrack (1040-98-110)
Sample extracted by CET.

If there are any questions regarding this data, please call.



Angela D. Overcash
Laboratory Director

Lab Report

From: NC Certification No. 402
SC Certification No. 99012
NC Drinking Water Cert. No. 37735
FL Certification No. E87519



March 15, 1999

To: Mr. Greg Melia
Chemical & Environmental Tech
102-A Woodwinds Industrial Ct
Cary, NC 27511
Project: Amtrack (1040-98-110)

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. AB22478 Customer Code: CET
Login Group #: 4858E4 Customer Reference: CET
Phone Number: (919)467-3090/fax(919)467-3515
Customer Sample I.D#: 156822-D5A
Sample collection date: 02/18/99 Time: 11:00
Lab submittal date: 03/10/99 Time: 10:30
Received by: KJE Validated by: ADO

Parameter: SEMI-VOLATILE ORGANICS BY 625
Method reference: EPA 625 Unit: ug/L
Result: see below
Date started: 03/12/99 Date finished: 03/12/99
Time started: 02:46 Analyst: HWC

Parameter: TICs BY SEMIVOLATILE GC/MS
Method reference: 625/8270 Unit:
Result: see below
Date started: 03/12/99 Date finished: 03/12/99
Time started: 02:46 Analyst: HWC

Data for SEMI-VOLATILE ORGANICS BY 625 ug/L:

Component Name	Result	Component MDL
ACENAPHTHENE	Not detected	10
ACENAPHTHYLENE	Not detected	10
ANTHRACENE	Not detected	10
BENZO(A)ANTHRACENE	Not detected	10
BENZO(B)FLUORANTHENE	Not detected	10
BENZO(K)FLUORANTHENE	Not detected	10
BENZO(A)PYRENE	Not detected	10
BENZO(GHI)PERYLENE	Not detected	10
BIS(2-CHLOROETHOXY)METHANE	Not detected	10
BIS(2-CHLOROETHYL)ETHER	Not detected	10
BIS(2-CHLOROISOPROPYL)ETHER	Not detected	10
BIS(2-ETHYLHEXYL)PHTHALATE	Not detected	10
4-BROMOPHENYL PHENYL ETHER	Not detected	10
BUTYL BENZYL PHTHALATE	Not detected	10
4-CHLORO-3-METHYLPHENOL	Not detected	10

Lab Report

Mr. Greg Melia Sample I.D. AB22478 (continued)
Page: 2
March 15, 1999



Data for SEMI-VOLATILE ORGANICS BY 625 (continued):

Component Name	Result	Component MDL
2-CHLORONAPHTHALENE	Not detected	10
2-CHLOROPHENOL	Not detected	10
4-CHLOROPHENYL PHENYL ETHER	Not detected	10
CHRYSENE	Not detected	10
DIBENZO(A, H)ANTHRACENE	Not detected	10
DI-N-BUTYLPHTHALATE	Not detected	10
1, 2-DICHLOROBENZENE	Not detected	10
1, 3-DICHLOROBENZENE	Not detected	10
1, 4-DICHLOROBENZENE	Not detected	10
2, 4-DICHLOROPHENOL	Not detected	10
DIETHYL PHTHALATE	Not detected	10
2, 4-DIMETHYLPHENOL	Not detected	10
DIMETHYL PHTHALATE	Not detected	10
2, 4-DINITROPHENOL	Not detected	50
2, 4-DINITROTOLUENE	Not detected	10
2, 6-DINITROTOLUENE	Not detected	10
DI-N-OCTYLPHTHALATE	Not detected	10
FLUORANTHENE	Not detected	10
FLUORENE	Not detected	10
HEXACHLOROBENZENE	Not detected	10
HEXACHLOROBUTADIENE	Not detected	10
HEXACHLOROCYCLOPENTADIENE	Not detected	10
HEXACHLOROETHANE	Not detected	10
INDENO(1, 2, 3-CD)PYRENE	Not detected	10
ISOPHORONE	Not detected	10
2-METHYL-4, 6-DINITROPHENOL	Not detected	50
NAPHTHALENE	Not detected	10
NITROBENZENE	Not detected	10
2-NITROPHENOL	Not detected	10
4-NITROPHENOL	Not detected	50
N-NITROSODIPHENYLAMINE	Not detected	10
N-NITROSODI-N-PROPYLAMINE	Not detected	10
PENTACHLOROPHENOL	Not detected	50
PHENANTHRENE	Not detected	10
PHENOL	Not detected	10
PYRENE	Not detected	10
1, 2, 4-TRICHLOROBENZENE	Not detected	10
2, 4, 6-TRICHLOROPHENOL	Not detected	10
BENZIDINE	Not detected	100
1, 2-DIPHENYLHYDRAZINE	Not detected	100

Data for TICs BY SEMIVOLATILE GC/MS:

625/8270 Tentatively Identified Compounds (10-largest TICs):

<Identification Class>	<Closest Spectral Fit>	<Est. Conc.>
(Unknown)	(2, 4-dichlorobenzoic Acid)	30 ug/L
(Unknown)	(Unknown)	8 ug/L

Lab Report

Mr. Greg Melia Sample I.D. AB22478 (continued)
Page: 3
March 15, 1999



Full Service Analytical & Environmental Solutions

Sample comments:

Project name: Amtrack (1040-98-110)
Sample extracted by CET.

If there are any questions regarding this data, please call.



Angela D. Overcash
Laboratory Director

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC /NC DOT
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/17/99

NCDOT AMTRAK STATION #9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156829 SAMPLE ID- NO-1
DATE SAMPLED- 02/16/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1450
RECEIVED BY- HLH

Page 1 of 1

PROJECT NAME : NCDOT/AM.STATN

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	PQL
		DATE	BY	DATE		
PERCENT SOLIDS	2540G		02/22/99	HLH	76.3 NA	
HIGH FRACTION HYDROCARBON	3550	02/24/99	AEK	02/25/99 JBR	43.0 mg/kg	10.0

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

HIGH FRACTION HYDROCARBON CONTAMINANT WAS IDENTIFIED AS MOTOR OIL;
QUANTITATED AS MOTOR OIL.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR



CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC /NC DOT
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/17/99

NCDOT AMTRAK STATION #9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156830 SAMPLE ID- NO-3
DATE SAMPLED- 02/16/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1505
RECEIVED BY- HLH

Page 1 of 1 PROJECT NAME : NCDOT/AM.STATN

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	PQL
		DATE	BY	DATE		
PERCENT SOLIDS	2540G		02/22/99	HLH	77.8 NA	
HIGH FRACTION HYDROCARBON	3550	02/24/99	AEK	02/25/99	JBR	< 10.0 mg/kg
						10.0

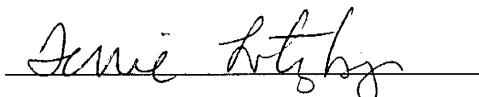
PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR



CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC /NC DOT
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/17/99

NCDOT AMTRAK STATION #9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156831 SAMPLE ID- NO-4
DATE SAMPLED- 02/16/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1515
RECEIVED BY- HLH

Page 1 of 1

PROJECT NAME : NCDOT/AM.STATN

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	PQL
		DATE	BY DATE	BY		
PERCENT SOLIDS	2540G	02/22/99	HLH	72.3	NA	
HIGH FRACTION HYDROCARBON	3550	02/24/99	AEK	02/25/99	JBR	< 10.0 mg/kg
						10.0

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR



CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC /NC DOT
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/17/99

NCDOT AMTRAK STATION #9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156832 SAMPLE ID- NO-5A
DATE SAMPLED- 02/16/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1545
RECEIVED BY- HLH

Page 1 of 1 PROJECT NAME : NCDOT/AM.STATN

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	PQL
		DATE	BY	DATE		
PERCENT SOLIDS	2540G		02/22/99	HLH	74.0 NA	
HIGH FRACTION HYDROCARBON	3550	02/25/99	AEK	02/26/99	JBR	< 10.0 mg/kg
						10.0

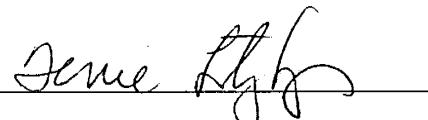
PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR



CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/03/99

AMTRAK STATION / NCDOT# 9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156841 SAMPLE ID- NO-6
DATE SAMPLED- 02/15/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1545
RECEIVED BY- HLH

Page 1 of 1

PROJECT NAME : NCDOT/AM STATN

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	PQL
		DATE	BY	DATE		
PERCENT SOLIDS	2540G		02/22/99	HLH	75.1 NA	
HIGH FRACTION HYDROCARBON/COMB	3550	02/25/99	AEK	02/26/99	JBR	107 mg/kg
						10.0

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

HIGH FRACTION HYDROCARBON CONTAMINANT WAS IDENTIFIED AS DEGRADED FUEL OIL #2.
QUANTITATED AS FUEL OIL #2.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

Joni Fitzberger

Lab Report

From: NC Certification No. 402
 SC Certification No. 99012
 NC Drinking Water Cert. No. 37735
 FL Certification No. E87519



March 15, 1999

To: Mr. Greg Melia
 Chemical & Environmental Tech
 102-A Woodwinds Industrial Ct
 Cary, NC 27511
 Project: Amtrack (1040-98-110)

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. AB22507	Customer Code: CET
Login Group #: 4865ES	Customer Reference: CET
Phone Number: (919)467-3090/fax(919)467-3515	
Customer Sample I.D#: 15684S NOSAT e7'	
Sample collection date: 02/17/99	Time: 17:30
Lab submittal date: 03/10/99	Time: 10:30
Received by: KJE	Validated by: ADO

Parameter: SEMI-VOLATILE ORGANICS BY 8270	
Method reference: SW846-8270	Unit: ug/kg
Result: see below	
Date started: 03/11/99	Date finished: 03/12/99
Time started: 20:46	Analyst: HWC

Parameter: TICs BY SEMIVOLATILE GC/MS	
Method reference: 625/8270	Unit:
Result: see below	
Date started: 03/11/99	Date finished: 03/12/99
Time started: 20:46	Analyst: HWC

Data for SEMI-VOLATILE ORGANICS BY 8270 ug/kg:

Component Name	Result	Component MDL
ACENAPHTHENE	Not detected	260.0
ACENAPHTHYLENE	Not detected	260.0
ANTHRACENE	Not detected	260.0
BENZO(A)ANTHRACENE	Not detected	260.0
BENZO(B)FLUORANTHENE	Not detected	260.0
BENZO(K)FLUORANTHENE	Not detected	260.0
BENZO(A)PYRENE	Not detected	260.0
BENZO(GHI)PERYLENE	Not detected	260.0
BIS(2-CHLOROETHOXY)METHANE	Not detected	260.0
BIS(2-CHLOROETHYL)ETHER	Not detected	260.0
BIS(2-CHLOROISOPROPYL)ETHER	Not detected	260.0
BIS(2-ETHYLHEXYL)PHTHALATE	Not detected	260.0
4-BROMOPHENYL PHENYL ETHER	Not detected	260.0
BUTYL BENZYL PHTHALATE	Not detected	260.0
4-CHLORO-3-METHYLPHENOL	Not detected	260.0

Lab Report

Mr. Greg Melia Sample I.D. AB22507 (continued)
 Page: 2
 March 15, 1999

**Data for SEMI-VOLATILE ORGANICS BY 8270 (continued):**

Component Name	Result	Component MDL
2-CHLORONAPHTHALENE	Not detected	260.0
2-CHLOROPHENOL	Not detected	260.0
4-CHLOROPHENYL PHENYL ETHER	Not detected	260.0
CHRYSENE	Not detected	260.0
DIBENZO(A, H)ANTHRACENE	Not detected	260.0
DIBENZOFURAN	Not detected	260.0
DI-N-BUTYLPHTHALATE	Not detected	260.0
1, 2-DICHLOROBENZENE	Not detected	260.0
1, 3-DICHLOROBENZENE	Not detected	260.0
1, 4-DICHLOROBENZENE	Not detected	260.0
2, 4-DICHLOROPHENOL	Not detected	260.0
DIETHYL PHTHALATE	Not detected	260.0
2, 4-DIMETHYLPHENOL	Not detected	260.0
DIMETHYL PHTHALATE	Not detected	260.0
2, 4-DINITROPHENOL	Not detected	1300.0
2, 4-DINITROTOLUENE	Not detected	260.0
2, 6-DINITROTOLUENE	Not detected	260.0
DI-N-OCTYLPHTHALATE	Not detected	260.0
FLUORANTHENE	Not detected	260.0
FLUORENE	Not detected	260.0
HEXACHLOROBENZENE	Not detected	260.0
HEXACHLOROBUTADIENE	Not detected	260.0
HEXACHLOROCYCLOPENTADIENE	Not detected	260.0
HEXACHLOROETHANE	Not detected	260.0
INDENO(1, 2, 3-CD)PYRENE	Not detected	260.0
ISOPHORONE	Not detected	260.0
2-METHYL-4, 6-DINITROPHENOL	Not detected	1300.0
2-METHYL NAPHTHALENE	Not detected	260.0
2-METHYL-PHENOL	Not detected	260.0
4-METHYL-PHENOL	Not detected	260.0
NAPHTHALENE	Not detected	260.0
NITROBENZENE	Not detected	260.0
2-NITROPHENOL	Not detected	260.0
4-NITROPHENOL	Not detected	1300.0
N-NITROSODIPHENYLAMINE	Not detected	260.0
N-NITROSODI-N-PROPYLAMINE	Not detected	260.0
PENTACHLOROPHENOL	Not detected	1300.0
PHENANTHRENE	290	260.0
PHENOL	Not detected	260.0
PYRENE	Not detected	260.0
1, 2, 4-TRICHLOROBENZENE	Not detected	260.0
2, 4, 5-TRICHLOROPHENOL	Not detected	260.0
2, 4, 6-TRICHLOROPHENOL	Not detected	260.0

Data for TICs BY SEMIVOLATILE GC/MS:**625/8270 Tentatively Identified Compounds (10-largest TICs):**

<Identification Class>	<Closest Spectral Fit>	<Est. Conc.>
=====	=====	=====

Lab Report

Mr. Greg Melia Sample I.D. AB22507 (continued)
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March 15, 1999



Data for TICs BY SEMIVOLATILE GC/MS (continued):

Unknown aliphatic hydrocarbon	(Unknown)	1600 ug/L
Unknown aliphatic hydrocarbon	(Unknown)	1400 ug/L
Unknown aromatic hydrocarbon	(Unknown)	960 ug/L
Unknown aromatic hydrocarbon	(2,3,7-trimethyloctane)	1500 ug/L
Unknown aromatic hydrocarbon	(1-methylnaphthalene)	1300 ug/L
Unknown aromatic hydrocarbon	(2,7,10-trimethyldodecane)	1300 ug/L
Unknown aromatic hydrocarbon	(trimethylbenzene)	1100 ug/L
Unknown aromatic hydrocarbon	(Unknown)	1600 ug/L
Unknown aromatic hydrocarbon	(trimethylbenzene)	3400 ug/L
Unknown aromatic hydrocarbon	(tetramethylbenzene)	5700 ug/L
Unknown aromatic hydrocarbon	(tetramethylheptadecane)	2600 ug/L

Sample comments:

Project name: Amtrack (1040-98-110)
Sample extracted by CET.

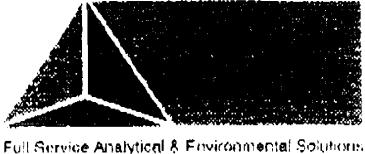
If there are any questions regarding this data, please call.

A handwritten signature in black ink, appearing to read "AD".

Angela D. Overcash
Laboratory Director

Lab Report

From: NC Certification No. 402
 SC Certification No. 99012
 NC Drinking Water Cert. No. 3773S
 FL Certification No. E87519



March 15, 1999

To: Mr. Greg Melia
 Chemical & Environmental Tech
 102-A Woodwinds Industrial Ct
 Cary, NC 27511
 Project: Amtrack (1040-98-110)

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. AB22508	Customer Code: CET
Login Group #: 4865E5	Customer Reference: CET
Phone Number: (919)467-3090/fax(919)467-3515	
Customer Sample I.D#: 156846 N05A from 10-12	
Sample collection date: 02/17/99	Time: 17:30
Lab submittal date: 03/10/99	Time: 10:30
Received by: KJE	Validated by: ADO

Parameter: SEMI-VOLATILE ORGANICS BY 8270	
Method reference: SW846-8270	Unit: ug/kg
Result: see below	
Date started: 03/11/99	Date finished: 03/12/99
Time started: 21:31	Analyst: HWC

Parameter: TICs BY SEMIVOLATILE GC/MS	
Method reference: 625/8270	Unit:
Result: see below	
Date started: 03/11/99	Date finished: 03/12/99
Time started: 21:31	Analyst: HWC

Data for SEMI-VOLATILE ORGANICS BY 8270 ug/kg:

Component Name	Result	Component MDL
ACENAPHTHENE	Not detected	270.0
ACENAPHTHYLENE	Not detected	270.0
ANTHRACENE	Not detected	270.0
BENZO(A)ANTHRACENE	Not detected	270.0
BENZO(B)FLUORANTHENE	Not detected	270.0
BENZO(K)FLUORANTHENE	Not detected	270.0
BENZO(A)PYRENE	Not detected	270.0
BENZO(GHI)PERYLENE	Not detected	270.0
BIS(2-CHLOROETHOXY)METHANE	Not detected	270.0
BIS(2-CHLOROETHYL)ETHER	Not detected	270.0
BIS(2-CHLOROISOPROPYL)ETHER	Not detected	270.0
BIS(2-ETHYLHEXYL)PHTHALATE	Not detected	270.0
4-BROMOPHENYL PHENYL ETHER	Not detected	270.0
BUTYL BENZYL PHTHALATE	Not detected	270.0
4-CHLORO-3-METHYLPHENOL	Not detected	270.0

Lab Report

Mr. Greg Melia Sample I.D. AB22508 (continued)
 Page: 2
 March 15, 1999



Data for SEMI-VOLATILE ORGANICS BY 8270 (continued):

Component Name	Result	Component MDL
2-CHLORONAPHTHALENE	Not detected	270.0
2-CHLOROPHENOL	Not detected	270.0
4-CHLOROPHENYL PHENYL ETHER	Not detected	270.0
CHRYSENE	Not detected	270.0
DIBENZO(A, H)ANTHACENE	Not detected	270.0
DIBENZOFURAN	Not detected	270.0
DI-N-BUTYLPHTHALATE	Not detected	270.0
1, 2-DICHLOROBENZENE	Not detected	270.0
1, 3-DICHLOROBENZENE	Not detected	270.0
1, 4-DICHLOROBENZENE	Not detected	270.0
2, 4-DICHLOROPHENOL	Not detected	270.0
DIETHYL PHTHALATE	Not detected	270.0
2, 4-DIMETHYLPHENOL	Not detected	270.0
DIMETHYL PHTHALATE	Not detected	270.0
2, 4-DINITROPHENOL	Not detected	1350.0
2, 4-DINITROTOLUENE	Not detected	270.0
2, 6-DINITROTOLUENE	Not detected	270.0
DI-N-OCTYLPHTHALATE	Not detected	270.0
FLUORANTHENE	Not detected	270.0
FLUORENE	Not detected	270.0
HEXACHLOROBENZENE	Not detected	270.0
HEXACHLOROBUTADIENE	Not detected	270.0
HEXACHLOROCYCLOPENTADIENE	Not detected	270.0
HEXACHLOROETHANE	Not detected	270.0
INDENO(1, 2, 3-CD)PYRENE	Not detected	270.0
ISOPHORONE	Not detected	270.0
2-METHYL-4, 6-DINITROPHENOL	Not detected	1350.0
2-METHYL NAPHTHALENE	Not detected	270.0
2-METHYL-PHENOL	Not detected	270.0
4-METHYL-PHENOL	Not detected	270.0
NAPHTHALENE	Not detected	270.0
NITROBENZENE	Not detected	270.0
2-NITROPHENOL	Not detected	270.0
4-NITROPHENOL	Not detected	1350.0
N-NITROSODIPHENYLAMINE	Not detected	270.0
N-NITROSODI-N-PROPYLAMINE	Not detected	270.0
PENTACHLOROPHENOL	Not detected	1350.0
PHENANTHRENE	Not detected	270.0
PHENOL	Not detected	270.0
PYRENE	Not detected	270.0
1, 2, 4-TRICHLOROBENZENE	Not detected	270.0
2, 4, 5-TRICHLOROPHENOL	Not detected	270.0
2, 4, 6-TRICHLOROPHENOL	Not detected	270.0

Data for TICs BY SEMIVOLATILE GC/MS:

625/8270 Tentatively Identified Compounds (10-largest TICs):

<Identification Class>	<Closest Spectral Fit>	<Est. Conc.>
=====	=====	=====

Lab Report

Mr. Greg Melia Sample I.D. AB22508 (continued)
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March 15, 1999



Full Service Analytical & Environmental Solutions

Data for TICs BY SEMIVOLATILE GC/MS (continued):

Unknown **(Unknown)**

Sample comments:

Project name: Amtrack (1040-98-110)
Sample extracted by CET.

If there are any questions regarding this data, please call.

✓

Angela D. Overcash
Laboratory Director

Chemical & Environmental Technology, Inc.

102-A Woodwinds Industrial Ct. Cary, NC 27511

(919) 467-3090 FAX: (919) 467-3515

CHAIN OF CUSTODY

Page 1 of 1

ATTENTION: A1 Quarles
 PROJECT NO: 1040-98-110 PROJECT NAME: NCDOT-Amtrak Station
 COLLECTED BY: Mike Baumbach
 DATE: 2/16/99 TIME: 9:50 SAMPLE I.D.: W0-45 # OF CONTAINERS: 1

COLLECTED BY: (Signature)

PRINTED NAME: Matthew Kaseem
Miles Baumbach
 SAMPLE TYPE: COM SAMPLE I.D.: W0-45 # OF CONTAINERS: 1

CET SAMPLE #	DATE	TIME	SAMPLE I.D.	# OF CONTAINERS	ANALYSES REQUIRED				REMARKS	PRESERVED IN FIELD	PRESERVED IN LAB	RECEIVED ON ICE	PURCHASE ORDER NO:	PROJECT	BILL TO:
					ASCORBIC ACID	H ₂ SO ₄	HNO ₃	HCl							
150825	2/16/99	9:50	X	W0-45	@ 8'-12'	Soil	X	X						X	
150826	2/16/99	1:15	X	W0-2	@ 4'-8'	Soil	X	X						X	
150827	2/16/99	1:45	X	W0-1	@ 4'-8'	Soil	X	X						X	
150828	2/16/99	2:30	X	W0-3	@ 4'-8'	Soil	X	X						X	
150829	2/16/99	2:50	X	No. 1	@ 1'-3'	Soil	X							X	
150830	2/16/99	3:05	X	No. 2	@ 1'-3'	Soil	X							X	
150831	2/16/99	3:15	X	No. 4	@ 1'-3'	Soil	X							X	
150832	2/16/99	3:45	X	No. 5A	@ 1'-3'	Soil	X							X	
150833	2/17/99	1:15	X	TCLP-1	Soil	X	X	X						X	
RELINQUISHED BY (Signature)		DATE	TIME	RECEIVED BY (Signature)											RECEIVED BY (Signature)
<u>John</u>		2/18/99	5:00												
RELINQUISHED BY (Signature)		DATE	TIME	RECEIVED FOR LABORATORY BY:		DATE	TIME	ADDITIONAL INSTRUCTIONS:							
<u>John</u>				<u>John</u>											

*Rush work requires laboratory approval prior to sample submission. Additional charges may apply.

Rec'd at 2°C

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

METHOD REFERENCES

Federal Register, Vol. 59, 40 CFR Part 136.3, January 31, 1994

--Metals, Inorganics, and Organics for groundwater and wastewater

Federal Register, Vol. 56, 40 CFR Parts 141-143, January 30, 1991

--Metals, Inorganics, and Organics for drinking water

"Groundwater Section Guidelines for the Investigation and Remediation of Soils and Groundwater", NCDEHNR, DEM, March 1993.

--High Fraction Hydrocarbon and Low Fraction Hydrocarbon for groundwater and soil

SW-846, Third Edition, Revision I, July 1992

--Inorganics and Organics in soil or sludges. Metals in soil, sludge, or groundwater.
(Metals in groundwater are digested by Method 3030C, Standard Methods, 18th Edition)

40 CFR Part 261, Appendix II and III

--Toxic Characteristic Leaching Procedure

Standard Methods, 18th Edition, 1992

--Total and Fecal Coliform in wastewater, streams, and lakes

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC /NC DOT
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/16/99

NCDOT AMTRAK STATION #9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156845 SAMPLE ID- NO-5A
DATE SAMPLED- 02/17/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1730
RECEIVED BY- HLH

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PROJECT NAME : NCDOT/AM STATN

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
PERCENT SOLIDS	2540G		02/22/99	HLH	77.1	NA	
MADEP EPH / COMBINED C9-C18 ALIPHATICS	EPH		03/02/99	TEL	102	mg/kg	35
C19-C36 ALIPHATICS	EPH				< 25	mg/kg	25
C11-C22 AROMATICS	EPH				38	mg/kg	13
SURROGATE 1 % RECOVERY	EPH				67	percent	
SURROGATE 2 % RECOVERY	EPH				69	percent	
FRACTION.SURR#1 % RECOVERY	EPH				59	percent	
FRACTION.SURR#2 % RECOVERY	EPH				107	percent	
MADEP VPH/COMBINED C5-C8 ALIPHATICS	VPH		03/03/99	JBR	< 10.0	mg/kg	10.0
C9-C12 ALIPHATICS	VPH				< 10.0	mg/kg	10.0
C9-C10 AROMATICS	VPH				< 10.0	mg/kg	10.0
SURROGATE % RECOVERY - PID	VPH				104	percent	
SURROGATE % RECOVERY - FID	VPH				95.7	percent	
VOLATILE ORGANIC CMPNDS - SOIL	8021		03/02/99	ALT			
BENZENE	8021				<49	ug/kg	49
BROMOBENZENE	8021				<49	ug/kg	49
BROMOCHLOROMETHANE	8021				<49	ug/kg	49
BROMODICHLOROMETHANE	8021				<49	ug/kg	49
BROMOFORM	8021				<49	ug/kg	49

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 2 of 6

PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156845

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
BROMOMETHANE	8021				<49	ug/kg	49
n-BUTYLBENZENE	8021				296	ug/kg	49
sec-BUTYLBENZENE	8021				471	ug/kg	49
tert-BUTYLBENZENE	8021				202	ug/kg	49
CARBON TETRACHLORIDE	8021				<49	ug/kg	49
CHLOROBENZENE	8021				<49	ug/kg	49
CHLOROETHANE	8021				<49	ug/kg	49
CHLOROFORM	8021				<49	ug/kg	49
CHLOROMETHANE	8021				<49	ug/kg	49
2-CHLOROTOLUENE	8021				<49	ug/kg	49
4-CHLOROTOLUENE	8021				<49	ug/kg	49
DIBROMOCHLOROMETHANE	8021				<49	ug/kg	49
1, 2-DIBROMO-3-CHLOROPROPANE	8021				<49	ug/kg	49
1, 2-DIBROMOETHANE	8021				<49	ug/kg	49
DIBROMOMETHANE	8021				<49	ug/kg	49
1, 2-DICHLOROBENZENE	8021				<49	ug/kg	49
1, 3-DICHLOROBENZENE	8021				<49	ug/kg	49
1, 4-DICHLOROBENZENE	8021				<49	ug/kg	49
DICHLORODIFLUOROMETHANE	8021				<49	ug/kg	49
1, 1-DICHLOROETHANE	8021				<49	ug/kg	49
1, 2-DICHLOROETHANE	8021				<49	ug/kg	49
1, 1 DICHLOROETHENE	8021				<49	ug/kg	49
cis-1, 2-DICHLOROETHENE	8021				<49	ug/kg	49
trans-1, 2-DICHLOROETHENE	8021				<49	ug/kg	49
1, 2-DICHLOROPROPANE	8021				<49	ug/kg	49
1, 3-DICHLOROPROPANE	8021				<49	ug/kg	49
2, 2-DICHLOROPROPANE	8021				<49	ug/kg	49
1, 1-DICHLOROPROPENE	8021				<49	ug/kg	49
cis-1, 3-DICHLOROPROPENE	8021				<49	ug/kg	49
trans-1, 3-DICHLOROPROPENE	8021				<49	ug/kg	49
ETHYLBENZENE	8021				<49	ug/kg	49

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 3 of 6

PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156845

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	PQL
		DATE	BY DATE	BY		
HEXACHLOROBUTADIENE	8021			<49	ug/kg	49
ISOPROPYLBENZENE	8021			127	ug/kg	49
p-ISOPROPYLtolUENE	8021			125	ug/kg	49
METHLYENE CHLORIDE	8021			<49	ug/kg	49
NAPHTHALENE	8021			866	ug/kg	49
n-PROPYLBENZENE	8021			54.2	ug/kg	49
STYRENE	8021			<49	ug/kg	49
1,1,1,2-TETRACHLOROETHANE	8021			<49	ug/kg	49
1,1,2,2-TETRACHLOROETHANE	8021			<49	ug/kg	49
TETRACHLOROETHENE	8021			<49	ug/kg	49
TOLUENE	8021			<49	ug/kg	49
1,2,3-TRICHLOROBENZENE	8021			<49	ug/kg	49
1,2,4-TRICHLOROBENZENE	8021			<49	ug/kg	49
1,1,1-TRICHLOROETHANE	8021			<49	ug/kg	49
1,1,2-TRICHLOROETHANE	8021			<49	ug/kg	49
TRICHLOROETHENE	8021			<49	ug/kg	49
TRICHLOROFLUOROMETHANE	8021			<49	ug/kg	49
1,2,3-TRICHLOROPROPANE	8021			<49	ug/kg	49
1,2,4-TRIMETHYLBENZENE	8021			95.4	ug/kg	49
1,3,5-TRIMETHYLBENZENE	8021			127	ug/kg	49
VINYL CHLORIDE	8021			<49	ug/kg	49
o-XYLENE	8021			<49	ug/kg	49
m,p-XYLENES	8021			<49	ug/kg	49
ISOPROPYL ETHER (IPE)	8021			<49	ug/kg	49
METHYLTERT-BUTYLETHER (MTBE)	8021			<49	ug/kg	49
SURROGATE a	8021			103	percent	
SURROGATE b	8021			93.2	percent	
BASE NEUTRAL/ACIDS IN SOLIDS	8270	03/02/99	AEK	03/12/99	***	*
BASE NEUTRAL	8270					* ug/kg
ACENAPHTHENE	8270					* ug/kg
ACENAPHTHYLENE	8270					* ug/kg

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 4 of 6

PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156845

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
ANILINE		8270			*	ug/kg	
ANTHRACENE		8270			*	ug/kg	
BENZIDINE		8270			*	ug/kg	
BENZO (a) ANTHRACENE		8270			*	ug/kg	
BENZO (b) FLUORANTHENE		8270			*	ug/kg	
BENZO (k) FLUORANTHENE		8270			*	ug/kg	
BENZO (g, h, i) PERYLENE		8270			*	ug/kg	
BENZO (a) PYRENE		8270			*	ug/kg	
BENZYL ALCOHOL		8270			*	ug/kg	
bis-(2-CHLOROETHYL) ETHER		8270			*	ug/kg	
bis-(2-CHLOROETHOXY) METHANE		8270			*	ug/kg	
bis-(2-CHLOROISOPROPYL) ETHER		8270			*	ug/kg	
bis-(2-ETHYLHEXYL) PHTHALATE		8270			*	ug/kg	
4-BROMOPHENYL PHENYL ETHER		8270			*	ug/kg	
BUTYL BENZYL PHTHALATE		8270			*	ug/kg	
4-CHLOROANILINE		8270			*	ug/kg	
2-CHLORONAPHTHALENE		8270			*	ug/kg	
4-CHLOROPHENYL PHENYL ETHER		8270			*	ug/kg	
CHRYSENE		8270			*	ug/kg	
DIBENZO (a, h) ANTHRACENE		8270			*	ug/kg	
DIBENZOFURAN		8270			*	ug/kg	
di-n-BUTYLPHthalate		8270			*	ug/kg	
1, 2-DICHLOROBENZENE		8270			*	ug/kg	
1, 3-DICHLOROBENZENE		8270			*	ug/kg	
1, 4-DICHLOROBENZENE		8270			*	ug/kg	
3, 3'-DICHLOROBENZIDINE		8270			*	ug/kg	
DIETHYL PHTHALATE		8270			*	ug/kg	
DIMETHYL PHTHALATE		8270			*	ug/kg	
2, 4-DINITROTOLUENE		8270			*	ug/kg	
2, 6-DINITROTOLUENE		8270			*	ug/kg	
di-n-OCTYLPHthalate		8270			*	ug/kg	

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 5 of 6

PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156845

ANALYSIS	METHOD	SAMPLE DATE	PREP BY DATE	ANALYSIS BY	RESULT UNITS	PQL
FLUORANTHENE	8270				* ug/kg	
FLUORENE	8270				* ug/kg	
HEXACHLOROBENZENE	8270				* ug/kg	
HEXACHLOROBUTADIENE	8270				* ug/kg	
HEXACHLOROCYCLOPENTADIENE	8270				* ug/kg	
HEXACHLOROETHANE	8270				* ug/kg	
INDENO(1, 2, 3-cd) PYRENE	8270				* ug/kg	
ISOPHORONE	8270				* ug/kg	
2-METHYLNAPHTHALENE	8270				* ug/kg	
NAPHTHALENE	8270				* ug/kg	
2-NITROANILINE	8270				* ug/kg	
3-NITROANILINE	8270				* ug/kg	
4-NITROANILINE	8270				* ug/kg	
NITROBENZENE	8270				* ug/kg	
N-NITROSODIMETHYLAMINE	8270				* ug/kg	
N-NITROSODIPHENYLAMINE	8270				* ug/kg	
N-NITROSODI-n-PROPYLAMINE	8270				* ug/kg	
PHENANTHRENE	8270				* ug/kg	
PYRENE	8270				* ug/kg	
1, 2, 4-TRICHLOROBENZENE	8270				* ug/kg	
ACIDS	8270				*	
BENZOIC ACID	8270				* ug/kg	
4-CHLORO-3-METHYLPHENOL	8270				* ug/kg	
2-CHLOROPHENOL	8270				* ug/kg	
2, 4-DICHLOROPHENOL	8270				* ug/kg	
2, 6-DICHLOROPHENOL	8270				* ug/kg	
2, 4-DIMETHYLPHENOL	8270				* ug/kg	
2, 4-DINITROPHENOL	8270				* ug/kg	
2-METHYL-4, 6-DINITROPHENOL	8270				* ug/kg	
2-METHYLPHENOL	8270				* ug/kg	
4-METHYLPHENOL	8270				* ug/kg	

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 6 of 6

PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156845

ANALYSIS	METHOD	SAMPLE DATE	PREP BY DATE	ANALYSIS BY	RESULT UNITS	PQL
2-NITROPHENOL	8270				* ug/kg	
4-NITROPHENOL	8270				* ug/kg	
PENTACHLOROPHENOL	8270				* ug/kg	
PHENOL	8270				* ug/kg	
2,3,4,6-TETRACHLOROPHENOL	8270				* ug/kg	
2,4,5-TRICHLOROPHENOL	8270				* ug/kg	
2,4,6-TRICHLOROPHENOL	8270				* ug/kg	
10 HIGHEST PEAKS	MASS SPEC			03/12/99 ***	*	

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

PLEASE REFER TO ENCLOSED REPORT FROM TOXICON FOR MADEP-EPH RESULTS.

* PLEASE REFER TO ENCLOSED REPORT FROM PRISM LABORATORIES FOR EPA 8270 RESULTS.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

Jenise Ritzberger

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC /NC DOT
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/16/99

NCDOT AMTRAK STATION #9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156846 SAMPLE ID- NO-5A 10'-12'
DATE SAMPLED- 02/17/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1730
RECEIVED BY- HLH

Page 1 of 6

PROJECT NAME : NCDOT/AM STATN

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
PERCENT SOLIDS	2540G			02/22/99 HLH	74.9	NA	
MADEP EPH / COMBINED	EPH			03/02/99 TEL			
C9-C18 ALIPHATICS	EPH				< 35	mg/kg	35
C19-C36 ALIPHATICS	EPH				< 25	mg/kg	25
C11-C22 AROMATICS	EPH				< 13	mg/kg	13
SURROGATE 1 % RECOVERY	EPH				73	percent	
SURROGATE 2 % RECOVERY	EPH				68	percent	
FRACTION.SURR#1 % RECOVERY	EPH				57	percent	
FRACTION.SURR#2 % RECOVERY	EPH				92	percent	
MADEP VPH/COMBINED	VPH			03/03/99 JBR			
C5-C8 ALIPHATICS	VPH				< 10.0	mg/kg	10.0
C9-C12 ALIPHATICS	VPH				< 10.0	mg/kg	10.0
C9-C10 AROMATICS	VPH				< 10.0	mg/kg	10.0
SURROGATE % RECOVERY - PID	VPH				106	percent	
SURROGATE % RECOVERY - FID	VPH				97.6	percent	
VOLATILE ORGANIC CMPNDS - SOIL	8021			03/02/99 ALT			
BENZENE	8021				< 5.0	ug/kg	5.0
BROMOBENZENE	8021				< 5.0	ug/kg	5.0
BROMOCHLOROMETHANE	8021				< 5.0	ug/kg	5.0
BROMODICHLOROMETHANE	8021				< 5.0	ug/kg	5.0
BROMOFORM	8021				< 5.0	ug/kg	5.0

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 2 of 6

PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156846

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT UNITS	PQL
BROMOMETHANE	8021			< 5.0 ug/kg	5.0	
n-BUTYLBENZENE	8021			< 5.0 ug/kg	5.0	
sec-BUTYLBENZENE	8021			< 5.0 ug/kg	5.0	
tert-BUTYLBENZENE	8021			< 5.0 ug/kg	5.0	
CARBON TETRACHLORIDE	8021			< 5.0 ug/kg	5.0	
CHLOROBENZENE	8021			< 5.0 ug/kg	5.0	
CHLOROETHANE	8021			< 5.0 ug/kg	5.0	
CHLOROFORM	8021			< 5.0 ug/kg	5.0	
CHLOROMETHANE	8021			< 5.0 ug/kg	5.0	
2-CHLOROTOLUENE	8021			< 5.0 ug/kg	5.0	
4-CHLOROTOLUENE	8021			< 5.0 ug/kg	5.0	
DIBROMOCHLOROMETHANE	8021			< 5.0 ug/kg	5.0	
1,2-DIBROMO-3-CHLOROPROPANE	8021			< 5.0 ug/kg	5.0	
1,2-DIBROMOETHANE	8021			< 5.0 ug/kg	5.0	
DIBROMOMETHANE	8021			< 5.0 ug/kg	5.0	
1,2-DICHLOROBENZENE	8021			< 5.0 ug/kg	5.0	
1,3-DICHLOROBENZENE	8021			< 5.0 ug/kg	5.0	
1,4-DICHLOROBENZENE	8021			< 5.0 ug/kg	5.0	
DICHLORODIFLUOROMETHANE	8021			< 5.0 ug/kg	5.0	
1,1-DICHLOROETHANE	8021			< 5.0 ug/kg	5.0	
1,2-DICHLOROETHANE	8021			< 5.0 ug/kg	5.0	
1,1 DICHLOROETHENE	8021			< 5.0 ug/kg	5.0	
cis-1,2-DICHLOROETHENE	8021			< 5.0 ug/kg	5.0	
trans-1,2-DICHLOROETHENE	8021			< 5.0 ug/kg	5.0	
1,2-DICHLOROPROPANE	8021			< 5.0 ug/kg	5.0	
1,3-DICHLOROPROPANE	8021			< 5.0 ug/kg	5.0	
2,2-DICHLOROPROPANE	8021			< 5.0 ug/kg	5.0	
1,1-DICHLOROPROPENE	8021			< 5.0 ug/kg	5.0	
cis-1,3-DICHLOROPROPENE	8021			< 5.0 ug/kg	5.0	
trans-1,3-DICHLOROPROPENE	8021			< 5.0 ug/kg	5.0	
ETHYLBENZENE	8021			< 5.0 ug/kg	5.0	

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 3 of 6

PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156846

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT UNITS	PQL
HEXACHLOROBUTADIENE	8021				< 5.0 ug/kg	5.0
ISOPROPYLBENZENE	8021				< 5.0 ug/kg	5.0
p-ISOPROPYLtolUENE	8021				< 5.0 ug/kg	5.0
METHLYENE CHLORIDE	8021				< 5.0 ug/kg	5.0
NAPHTHALENE	8021				< 5.0 ug/kg	5.0
n-PROPYLBENZENE	8021				< 5.0 ug/kg	5.0
STYRENE	8021				< 5.0 ug/kg	5.0
1,1,1,2-TETRACHLOROETHANE	8021				< 5.0 ug/kg	5.0
1,1,2,2-TETRACHLOROETHANE	8021				< 5.0 ug/kg	5.0
TETRACHLOROETHENE	8021				< 5.0 ug/kg	5.0
TOLUENE	8021				< 5.0 ug/kg	5.0
1,2,3-TRICHLOROBENZENE	8021				< 5.0 ug/kg	5.0
1,2,4-TRICHLOROBENZENE	8021				< 5.0 ug/kg	5.0
1,1,1-TRICHLOROETHANE	8021				< 5.0 ug/kg	5.0
1,1,2-TRICHLOROETHANE	8021				< 5.0 ug/kg	5.0
TRICHLOROETHENE	8021				< 5.0 ug/kg	5.0
TRICHLOROFLUOROMETHANE	8021				< 5.0 ug/kg	5.0
1,2,3-TRICHLOROPROPANE	8021				< 5.0 ug/kg	5.0
1,2,4-TRIMETHYLBENZENE	8021				< 5.0 ug/kg	5.0
1,3,5-TRIMETHYLBENZENE	8021				< 5.0 ug/kg	5.0
VINYL CHLORIDE	8021				< 5.0 ug/kg	5.0
O-XYLENE	8021				< 5.0 ug/kg	5.0
m,p-XYLENES	8021				< 5.0 ug/kg	5.0
ISOPROPYL ETHER (IPE)	8021				< 5.0 ug/kg	5.0
METHYLTERT-BUTYLETHER (MTBE)	8021				< 5.0 ug/kg	5.0
SURROGATE a	8021				106 percent	-
SURROGATE b	8021				99.7 percent	-
BASE NEUTRAL/ACIDS IN SOLIDS	8270	03/02/99	AEK	03/12/99 ***	*	
BASE NEUTRAL	8270				* ug/kg	
ACENAPHTHENE	8270				* ug/kg	
ACENAPHTHYLENE	8270					

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 4 of 6

PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156846

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT UNITS	PQL
ANILINE		8270			* ug/kg	
ANTHRACENE		8270			* ug/kg	
BENZIDINE		8270			* ug/kg	
BENZO(a) ANTHRACENE		8270			* ug/kg	
BENZO(b) FLUORANTHENE		8270			* ug/kg	
BENZO(k) FLUORANTHENE		8270			* ug/kg	
BENZO(g, h, i) PERYLENE		8270			* ug/kg	
BENZO(a) PYRENE		8270			* ug/kg	
BENZYL ALCOHOL		8270			* ug/kg	
bis-(2-CHLOROETHYL) ETHER		8270			* ug/kg	
bis-(2-CHLOROETHOXY) METHANE		8270			* ug/kg	
bis-(2-CHLOROISOPROPYL) ETHER		8270			* ug/kg	
bis-(2-ETHYLHEXYL) PHTHALATE		8270			* ug/kg	
4-BROMOPHENYL PHENYL ETHER		8270			* ug/kg	
BUTYL BENZYL PHTHALATE		8270			* ug/kg	
4-CHLOROANILINE		8270			* ug/kg	
2-CHLORONAPHTHALENE		8270			* ug/kg	
4-CHLOROPHENYL PHENYL ETHER		8270			* ug/kg	
CHRYSENE		8270			* ug/kg	
DIBENZO(a, h) ANTHRACENE		8270			* ug/kg	
DIBENZOFURAN		8270			* ug/kg	
di-n-BUTYLPHthalate		8270			* ug/kg	
1, 2-DICHLOROBENZENE		8270			* ug/kg	
1, 3-DICHLOROBENZENE		8270			* ug/kg	
1, 4-DICHLOROBENZENE		8270			* ug/kg	
3, 3'-DICHLOROBENZIDINE		8270			* ug/kg	
DIETHYL PHTHALATE		8270			* ug/kg	
DIMETHYL PHTHALATE		8270			* ug/kg	
2, 4-DINITROTOLUENE		8270			* ug/kg	
2, 6-DINITROTOLUENE		8270			* ug/kg	
di-n-OCTYLPHTHALATE		8270			* ug/kg	

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 5 of 6

PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156846

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
FLUORANTHENE	8270				*	ug/kg	
FLUORENE	8270				*	ug/kg	
HEXACHLOROBENZENE	8270				*	ug/kg	
HEXACHLOROBUTADIENE	8270				*	ug/kg	
HEXACHLOROCYCLOPENTADIENE	8270				*	ug/kg	
HEXACHLOROETHANE	8270				*	ug/kg	
INDENO(1,2,3-cd) PYRENE	8270				*	ug/kg	
ISOPHORONE	8270				*	ug/kg	
2-METHYLNAPHTHALENE	8270				*	ug/kg	
NAPHTHALENE	8270				*	ug/kg	
2-NITROANILINE	8270				*	ug/kg	
3-NITROANILINE	8270				*	ug/kg	
4-NITROANILINE	8270				*	ug/kg	
NITROBENZENE	8270				*	ug/kg	
N-NITROSODIMETHYLAMINE	8270				*	ug/kg	
N-NITROSODIPHENYLAMINE	8270				*	ug/kg	
N-NITROSODI-n-PROPYLAMINE	8270				*	ug/kg	
PHENANTHRENE	8270				*	ug/kg	
PYRENE	8270				*	ug/kg	
1, 2, 4-TRICHLOROBENZENE	8270				*	ug/kg	
ACIDS	8270				*		
BENZOIC ACID	8270				*	ug/kg	
4-CHLORO-3-METHYLPHENOL	8270				*	ug/kg	
2-CHLOROPHENOL	8270				*	ug/kg	
2, 4-DICHLOROPHENOL	8270				*	ug/kg	
2, 6-DICHLOROPHENOL	8270				*	ug/kg	
2, 4-DIMETHYLPHENOL	8270				*	ug/kg	
2, 4-DINITROPHENOL	8270				*	ug/kg	
2-METHYL-4, 6-DINITROPHENOL	8270				*	ug/kg	
2-METHYLPHENOL	8270				*	ug/kg	
4-METHYLPHENOL	8270				*	ug/kg	

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 6 of 6

PROJECT NAME : NCDOT/AM STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156846

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	PQL
		DATE	BY DATE	BY		
2-NITROPHENOL	8270				* ug/kg	
4-NITROPHENOL	8270				* ug/kg	
PENTACHLOROPHENOL	8270				* ug/kg	
PHENOL	8270				* ug/kg	
2,3,4,6-TETRACHLOROPHENOL	8270				* ug/kg	
2,4,5-TRICHLOROPHENOL	8270				* ug/kg	
2,4,6-TRICHLOROPHENOL	8270				* ug/kg	
10 HIGHEST PEAKS	MASS SPEC		03/12/99 ***		*	

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids) /100.

PLEASE REFER TO ENCLOSED REPORT FROM TOXICON FOR MADEP-EPH RESULTS.

* PLEASE REFER TO ENCLOSED REPORT FROM PRISM LABORATORIES FOR EPA 8270 RESULTS.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

Jenie Fitzberger

Chemical & Environmental Technology, Inc.

102-A Woodwinds Industrial Ct. Cary, NC 27511
(919) 467-3090 FAX: (919) 467-3515

CHAIN OF CUSTODY

Page 2 of ~~2~~ 2

*Rush work requires laboratory approval prior to sample submission. Additional charges may apply.

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

METHOD REFERENCES

Federal Register, Vol. 59, 40 CFR Part 136.3, January 31, 1994

--Metals, Inorganics, and Organics for groundwater and wastewater

Federal Register, Vol. 56, 40 CFR Parts 141-143, January 30, 1991

--Metals, Inorganics, and Organics for drinking water

"Groundwater Section Guidelines for the Investigation and Remediation of Soils and Groundwater", NCDEHNR, DEM, March 1993.

--High Fraction Hydrocarbon and Low Fraction Hydrocarbon for groundwater and soil

SW-846, Third Edition, Revision I, July 1992

--Inorganics and Organics in soil or sludges. Metals in soil, sludge, or groundwater.
(Metals in groundwater are digested by **Method 3030C, Standard Methods, 18th Edition**)

40 CFR Part 261, Appendix II and III

--Toxic Characteristic Leaching Procedure

Standard Methods, 18th Edition, 1992

--Total and Fecal Coliform in wastewater, streams, and lakes

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Received: 02/23/99

TOXIKON CORP. REPORT

Work Order # 99-02-400

Results by Sample

SAMPLE ID 156845 NO-5A 7'

FRACTION 04A TEST CODE EPHNC NAME EXTRACTABLE PHC

Date & Time Collected 02/17/99 17:30:00

Category SOIL

EXTRACTABLE PETROLEUM HYDROCARBONS

	REPORTING	
	RESULT	LIMIT
C9-C18 Aliphatics	<u>102</u>	<u>35</u>
C19-C36 Aliphatics	<u>ND</u>	<u>25</u>
C11-C22 Aromatics	<u>38</u>	<u>13</u>

Surrogates	%Recovery	Surrogate	Limits
Aliphatic Surrogate	<u>67</u>	40	- 140
Aliphatic Fractionation Surrogate	<u>69</u>	40	- 140
Aromatic Surrogate	<u>59</u>	40	- 140
Aromatic Fractionation Surrogate	<u>107</u>	40	- 140

Notes and Definitions for this Report:

EXTRACTED 02/24/99
DATE RUN 03/02/99
ANALYST CK
INSTRUMENT HP 7
DIL. FACTOR: 1
UNITS mg/Kg
MATRIX: _____
DRY WEIGHT: 76.9

ND = not detected at detection limit

D = diluted out

INT = matrix interference

Hydrocarbon Range data exclude concentrations of surrogate(s) eluting in that range

Hydrocarbon Range data are unadjusted for target analytes

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Received: 02/23/99

TOXIKON CORP. REPORT

Work Order # 99-02-400

Results by Sample

SAMPLE ID 156846 NO-5A 10¹-12¹ FRACTION 05A TEST CODE EPHNC NAME EXTRACTABLE PHC
Date & Time Collected 02/17/99 17:30:00 Category SOIL

EXTRACTABLE PETROLEUM HYDROCARBONS

	REPORTING	
	RESULT	LIMIT
C9-C18 Aliphatics	<u>ND</u>	<u>35</u>
C19-C36 Aliphatics	<u>ND</u>	<u>25</u>
C11-C22 Aromatics	<u>ND</u>	<u>13</u>

Surrogates	%Recovery	Surrogate	Limits
Aliphatic Surrogate	<u>73</u>	40	- 140
Aliphatic Fractionation Surrogate	<u>68</u>	40	- 140
Aromatic Surrogate	<u>57</u>	40	- 140
Aromatic Fractionation Surrogate	<u>92</u>	40	- 140

Notes and Definitions for this Report:

EXTRACTED 02/24/99
DATE RUN 03/02/99
ANALYST CK
INSTRUMENT HP 7
DIL. FACTOR: 1
UNITS mg/Kg
MATRIX: _____
DRY WEIGHT: 75.9

ND = not detected at detection limit

D = diluted out

INT = matrix interference

Hydrocarbon Range data exclude concentrations of surrogate(s) eluting in that range

Hydrocarbon Range data are unadjusted for target analytes

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TOXIKON CORP.

REPORT

Work Order # 99-02-400

Received: 02/23/99

Test Methodology

TEST CODE EPHNC NAME EXTRACTABLE PHC

METHOD:EXTRACTABLE PETROLEUM HYDROCARBONS

REFERENCE:METHOD FOR THE DETERMINATION OF EXTRACTABLE PETROLEUM
HYDROCARBONS (EPH), MADEP-EPH-98-1
MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
JANUARY 1998
FOLLOWING THE GUIDELINES OF THE NORTH CAROLINA DENR

Environmental Technology, Inc.
102-A Woodwind Industrial Center
P.O. Box 1000 • Somers, NY 10589-1000

102-A Woodwinds Industrial Ct. Cary, NC 27511
(919) 467-3090 FAX: (919) 467-3515

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 99 02 400
 3 3 69

CHAIN OF CUSTODY

(919) 467-3090 FAX: (919) 467-3515

*Rush work requires laboratory approval prior to sample submission. Additional charges may apply.

EPH Laboratory Reporting Form**Calibration and QA/QC Information**

Initial Calibration Date 1/14/99
 Calibration Ranges and Limits

Range	MDL	ML	RL
C9 -C18 Aliphatics	11	33	100
C19 - C36 Aliphatics	8	25	100
C11 -C22 Aromatics	4	13	100

NOTE: Please include units as appropriate

Method of Quantitation (circle one): Curve or Average Response Factor
 Calibration Concentration Levels

Range	Levels	%RSD or CCC
C9 -C18 Aliphatics	30 <i>ug/ml</i>	9.9
	120	
	300	
	600	
	1200	
C19 -C36 Aliphatics	40 <i>ug/ml</i>	3.4
	160	
	400	
	800	
	1600	
C11 - C22 Aromatics	85 <i>ug/ml</i>	11
	340	
	850	
	1700	
	3400	

NOTE: Please indicate units as appropriate.

Calibration Check Date 3/2/99 - 3/3/99
 Calibration Check

Range	Level	RPD
C9 -C18 Aliphatics	3.70	0.3
C19 - C36 Aliphatics	4.00	1.3
C11 -C22 Aromatics	8.50	7.3

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

EPH/VPH Certification

Toxikon Order 9902400

VPH Soil Sample Collection Option _____

Option 1 = Fill line on vial Option 2 = Sampling Device Option 3 = Field weight of soil

Were all QA/QC procedures REQUIRED by the VPH method followed? Yes No Were all QA/QC procedures REQUIRED by the EPH method followed? Yes ✓ No Were all performance/acceptance standards for the required QA/QC Yes ✓ No
procedures achieved?

Details regarding any answer of "No" above are provided below.

Were any significant modifications made to the EPH/VPH methods Yes No X
as specified in Section 11.3?

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Signature: Douglas Sheeley Position: Laboratory Manager
Printed Name: Douglas Sheeley Date: 3/3/84

CASE NARRATIVE

Work Order: 9902400

All samples were analyzed within the method holding times.

No target compounds were detected in the method blanks.

SURROGATE RECOVERY EXTRACTABLE PETROLEUM HYDROCARBONS

PROJECT: 9902400

MATRIX: SOIL

QC Limit 40 - 140

Chloro-octadecane (COD)
Ortho-terphenyl (OTP)

D - Indicates Diluted Out
INT - Indicates Interference

TOXIKON

EPH --- QUALITY CONTROL DATA SHEET

PROJECT # : 9902400
MATRIX : SOIL
UNITS : mg/Kg
INSTRUMENT : HP 7

DATE EXTRACTED : 2/24/99
DATE ANALYZED : 3/2/99
METHOD : EPH
DETECTOR : FID

COMPOUND	LCS CONC.	LCS REC.	MS CONC.	MS REC.
NONANE C9	12.9	51.6	12	48.0
TETRADECANE C14	16.8	67.2	16.1	64.4
NONADECANE C19	24.7	98.8	26	104.0
EICOSANE C20	25.4	101.6	27.6	110.4
OCTACOSANE C28	16.7	66.8	16.7	66.8
NAPHTHALENE	2.88	11.5	3.95	15.8
ACENAPHTHENE	14.6	58.4	14.6	58.4
ANTHRACENE	1.61	6.44	2.17	8.68
PYRENE	15.2	60.8	15	60.0
CHRYSENE	14.6	58.4	14.2	56.8

D - Indicates Diluted Out

INT - Indicates Interference

NC-Indicates Not Calculated Due to Matrix Interferences

SURROGATE RECOVERY
EXTRACTABLE PETROLEUM HYDROCARBONS

PROJECT: 9902400

MATRIX: WATER

QC Limit 40 - 140

Chloro-octadecane (COD)
Ortho-terphenyl (OTP)

D - Indicates Diluted Out
INT - Indicates Interference

TOXIKON

EPH --- QUALITY CONTROL DATA SHEET

PROJECT # : 9902400
MATRIX : WATER
UNITS : ug/L
INSTRUMENT : HP 7

DATE EXTRACTED : 2/24/99
DATE ANALYZED : 3/2/99
METHOD : EPH
DETECTOR : FID

COMPOUND	LCS CONC.	LCS REC.	LCSD CONC.	LCSD REC.
NONANE C9	10.5	42.0	10.8	43.2
TETRADECANE C14	7.27	29.1	6.11	24.4
NONADECANE C19	11.7	46.8	9.85	39.4
EICOSANE C20	15.1	60.4	15.0	60.0
OCTACOSANE C28	10.8	43.2	9.79	39.2
NAPHTHALENE	10.3	41.2	7.72	30.9
ACENAPHTHENE	20.0	80.0	19.8	79.2
ANTHRACENE	16.8	67.2	17.9	71.6
PYRENE	17.5	70.0	18.0	72.0
CHRYSENE	16.0	64.0	16.6	66.4

D - Indicates Diluted Out

INT - Indicates Interference

NC-Indicates Not Calculated Due to Matrix Interferences

Chemical & Environmental Technology, Inc.
102-A Woodwinds Industrial Ct. Cary, NC 27511

102-A Woodwinds Industrial Ct. Cary, NC 27511
(919) 467-3090 FAX: (919) 467-3515

CHAIN OF CUSTODY

Chemical & Environmental Technology, Inc.

Page of

*Rush work requires laboratory approval prior to sample submission. Additional charges may apply.

VPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date 1/29/99

Calibration Ranges and Limits

Range	MDL	ML	RL
C5 - C8 Aliphatics	0.073 mg/Kg	0.232 mg/Kg	10.0 mg/Kg
C9 - C12 Aliphatics	0.036 mg/Kg	0.114 mg/Kg	10.0 mg/Kg
C9 - C10 Aromatics	0.074 mg/Kg	0.235 mg/Kg	10.0 mg/Kg

NOTE: Please include units as appropriate

Method of Quantitation: Curve

Calibration Concentration Levels

Range	Levels	CCC
C5 - C8 Aliphatics	30 ngs	0.9982
	60 ngs	
	240 ngs	
	300 ngs	
	450 ngs	
	750 ngs	
C9 - C12 Aliphatics	10 ngs	0.9960
	20 ngs	
	40 ngs	
	60 ngs	
	80 ngs	
	100 ngs	
	150 ngs	
	250 ngs	
C9 - C10 Aromatics	10 ngs	0.9952
	20 ngs	
	40 ngs	
	60 ngs	
	80 ngs	
	100 ngs	
	250 ngs	
	400 ngs	

NOTE: Please include units as appropriate

Calibration Check Date 3/3/99

Calibration Check

Range	Level	RPD
C5 - C8 Aliphatics	251	16.3
C9 - C12 Aliphatics	97.4	2.6
C9 - C10 Aromatics	90.9	9.1

MDL = Method Detection Level

ML = Minimum Limit

RL = Reporting Limit

RPD = Relative Percent Difference

% RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

	C9-C10 Aromatic	C9-C12 Aromatic	C9-C16 Aromatic
Percent Recovery - Fortified Blank (Spike) - PID			108
Relative Percent Difference - PID Duplicate			NA
Percent Recovery - Fortified Blank (Spike) - FID	83.0	72.9	
Relative Percent Difference - FID Duplicate	NA	NA	

156842 dup

VPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date 1/29/99

Calibration Ranges and Limits

Range	MDL	ML	RL
C5 - C8 Aliphatics	0.073 mg/Kg	0.232 mg/Kg	10.0 mg/Kg
C9 - C12 Aliphatics	0.036 mg/Kg	0.114 mg/Kg	10.0 mg/Kg
C9 - C10 Aromatics	0.074 mg/Kg	0.235 mg/Kg	10.0 mg/Kg

NOTE: Please include units as appropriate

Method of Quantitation: Curve

Calibration Concentration Levels

Range	Levels	CCC
C5 - C8 Aliphatics	30 ngs	0.9982
	60 ngs	
	240 ngs	
	300 ngs	
	450 ngs	
	750 ngs	
C9 - C12 Aliphatics	10 ngs	0.9960
	20 ngs	
	40 ngs	
	60 ngs	
	80 ngs	
	100 ngs	
	150 ngs	
	250 ngs	
C9 - C10 Aromatics	10 ngs	0.9952
	20 ngs	
	40 ngs	
	60 ngs	
	80 ngs	
	100 ngs	
	250 ngs	
	400 ngs	

NOTE: Please include units as appropriate

Calibration Check Date 3/5/99

Calibration Check

Range	Level	RPD
C5 - C8 Aliphatics	231	23.0
C9 - C12 Aliphatics	81.8	18.2
C9 - C10 Aromatics	84.5	15.5

MDL = Method Detection Level

ML = Minimum Limit

RL = Reporting Limit

RPD = Relative Percent Difference

% RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

QC Date:

3/5/99

MAR 18 1999

	C5 - C8	C9 - C12	C13 - C16
	Average	Average	Average
Percent Recovery - Fortified Blank (Spike) - PID			104
Relative Percent Difference - PID Duplicate			4.2
Percent Recovery - Fortified Blank (Spike) - FID	83.7	103	
Relative Percent Difference - FID Duplicate	1.4	0.9	

157291 dup

Appendix V

Groundwater Samples Taken Near New Oil AST

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC /NC DOT
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/16/99

NCDOT AMTRAK STATION #9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156823 SAMPLE ID- NO-5A
DATE SAMPLED- 02/18/99
DATE RECEIVED- 02/19/99 SAMPLER- HAYTHEM KASEM
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- GW
TIME SAMPLED- 1430
RECEIVED BY- HLH

Page 1 of 3

PROJECT NAME : NCDOT/AM.STATN

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
MADEP EPH / COMBINED C9-C18 ALIPHATICS	MADEP EPH	02/24/99	TEL	03/03/99 TEL	135	ug/L	100
C19-C36 ALIPHATICS	MADEP EPH				< 100	ug/L	100
C11-C22 AROMATICS	MADEP EPH				< 100	ug/L	100
SURROGATE#1 % RECOVERY	MADEP EPH				37	percent	
SURROGATE#2 % RECOVERY	MADEP EPH				77	percent	
FRACTION.SURR#1 % RECOVERY	MADEP EPH				72	percent	
FRACTION.SURR#2 % RECOVERY	MADEP EPH				128	percent	
MADEP VPH / COMBINED C5-C8 ALIPHATICS	MADEP VPH			03/03/99 JBR	< 100	ug/L	100
C9-C12 ALIPHATICS	MADEP VPH				< 100	ug/L	100
C9-C10 AROMATICS	MADEP VPH				< 100	ug/L	100
SURROGATE % RECOVERY - PID	MADEP VPH				100	percent	
SURROGATE % RECOVERY - FID	MADEP VPH				94.7	percent	
PURGEABLE AROMATIC EPA 602 BENZENE	EPA 602			02/23/99 ALT	< 1.0	ug/L	1.0
CHLOROBENZENE	EPA 602				< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	EPA 602				< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	EPA 602				< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	EPA 602				< 1.0	ug/L	1.0
ETHYLBENZENE	EPA 602				< 1.0	ug/L	1.0

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 2 of 3

PROJECT NAME : NCDOT/AM.STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156823

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT UNITS	PQL
TOLUENE	EPA 602			< 1.0 ug/L	1.0	
TOTAL XYLEMES	EPA 602			< 1.0 ug/L	1.0	
SURROGATE	EPA 602			99.3 percent		
BASE NEUTRAL/ACIDS	EPA 625	02/23/99	AEK 03/12/99	***		
ACENAPHTHENE	EPA 625			* ug/L		
ACENAPHTHYLENE	EPA 625			* ug/L		
ANTHRACENE	EPA 625			* ug/L		
BENZIDINE	EPA 625			* ug/L		
BENZO(a)ANTHRACENE	EPA 625			* ug/L		
BENZO(b)FLUORANTHENE	EPA 625			* ug/L		
BENZO(k)FLUORANTHENE	EPA 625			* ug/L		
BENZO(g,h,i)PERYLENE	EPA 625			* ug/L		
BENZO(a)PYRENE	EPA 625			* ug/L		
bis-(2-CHLOROETHYL) ETHER	EPA 625			* ug/L		
bis-(2-CHLOROETHOXY) METHANE	EPA 625			* ug/L		
bis-(2-CHLOROISOPROPYL) ETHER	EPA 625			* ug/L		
bis-(2-ETHYLHEXYL) PHTHALATE	EPA 625			* ug/L		
4-BROMOPHENYL PHENYL ETHER	EPA 625			* ug/L		
BUTYL BENZYL PHTHALATE	EPA 625			* ug/L		
2-CHLORONAPHTHALENE	EPA 625			* ug/L		
4-CHLOROPHENYL PHENYL ETHER	EPA 625			* ug/L		
CHRYSENE	EPA 625			* ug/L		
DIBENZO(a,h)ANTHRACENE	EPA 625			* ug/L		
di-n-BUTYLPHTHALATE	EPA 625			* ug/L		
1,2-DICHLOROBENZENE	EPA 625			* ug/L		
1,3-DICHLOROBENZENE	EPA 625			* ug/L		
1,4-DICHLOROBENZENE	EPA 625			* ug/L		
3,3'-DICHLOROBENZIDINE	EPA 625			* ug/L		
DIETHYL PHTHALATE	EPA 625			* ug/L		
DIMETHYL PHTHALATE	EPA 625			* ug/L		
2,4-DINTROTOLUENE	EPA 625			* ug/L		

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 3 of 3

PROJECT NAME : NCDOT/AM.STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156823

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
2,6-DINITROTOLUENE	EPA 625				*	ug/L	
di-n-OCTYLPHthalATE	EPA 625				*	ug/L	
FLUORANTHENE	EPA 625				*	ug/L	
FLUORENE	EPA 625				*	ug/L	
HEXACHLOROBENZENE	EPA 625				*	ug/L	
HEXACHLOROBUTADIENE	EPA 625				*	ug/L	
HEXACHLOROCYCLOPENTADIENE	EPA 625				*	ug/L	
HEXACHLOROETHANE	EPA 625				*	ug/L	
INDENO(1,2,3-cd) PYRENE	EPA 625				*	ug/L	
ISOPHORONE	EPA 625				*	ug/L	
NAPHTHALENE	EPA 625				*	ug/L	
NITROBENZENE	EPA 625				*	ug/L	
N-NITROSODIMETHYLAMINE	EPA 625				*	ug/L	
N-NITROSODIPHENYLAMINE	EPA 625				*	ug/L	
N-NITROSODI-n-PROPYLAMINE	EPA 625				*	ug/L	
PHENANTHRENE	EPA 625				*	ug/L	
PYRENE	EPA 625				*	ug/L	
1,2,4-TRICHLOROBENZENE	EPA 625				*	ug/L	
4-CHLORO-3-METHYLPHENOL	EPA 625				*	ug/L	
2-CHLOROPHENOL	EPA 625				*	ug/L	
2,4-DICHLOROPHENOL	EPA 625				*	ug/L	
2,4-DIMETHYLPHENOL	EPA 625				*	ug/L	
2,4-DINITROPHENOL	EPA 625				*	ug/L	
2-METHYL-4,6-DINITROPHENOL	EPA 625				*	ug/L	
2-NITROPHENOL	EPA 625				*	ug/L	
4-NITROPHENOL	EPA 625				*	ug/L	
PENTACHLOROPHENOL	EPA 625				*	ug/L	
PHENOL	EPA 625				*	ug/L	
2,4,6-TRICHLOROPHENOL	EPA 625				*	ug/L	
10 HIGHEST PEAKS	MASS SPEC			03/12/99 ***	*		

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

* PLEASE REFER TO ENCLOSED REPORT FROM PRISM LABORATORIES FOR EPA 625 RESULTS.

PLEASE REFER TO ENCLOSED REPORT FROM TOXICON FOR MADEP-EPH RESULTS.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

Serie Litzner Berger

Page 8

TOXIKON CORP.

REPORT

Work Order # 99-02-400

Received: 02/23/99

Results by Sample

SAMPLE ID 156823 NO-5A

FRACTION 07A TEST CODE EPHNC NAME EXTRACTABLE PHC

Date & Time Collected 02/18/99 14:30:00

Category WATER

EXTRACTABLE PETROLEUM HYDROCARBONS

	REPORTING	
	RESULT	LIMIT
C9-C18 Aliphatics	<u>135</u>	<u>100</u>
C19-C36 Aliphatics	<u>ND</u>	<u>100</u>
C11-C22 Aromatics	<u>ND</u>	<u>100</u>

Surrogates	%Recovery	Surrogate	Limits
Aliphatic Surrogate	<u>37</u>	40	- 140
Aliphatic Fractionation Surrogate	<u>77</u>	40	- 140
Aromatic Surrogate	<u>72</u>	40	- 140
Aromatic Fractionation Surrogate	<u>128</u>	40	- 140

Notes and Definitions for this Report:

EXTRACTED 02/24/99
DATE RUN 03/03/99
ANALYST CK
INSTRUMENT HP 7
DIL. FACTOR: 1
UNITS ug/L
MATRIX: _____
DRY WEIGHT: _____

ND = not detected at detection limit

D = diluted out

INT = matrix interference

Hydrocarbon Range data exclude concentrations of surrogate(s) eluting in that range
Hydrocarbon Range data are unadjusted for target analytes

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TOXIKON CORP.

REPORT

Work Order # 99-02-400

Received: 02/23/99

Test Methodology

TEST CODE EPHNC NAME EXTRACTABLE PHC

METHOD:EXTRACTABLE PETROLEUM HYDROCARBONS

REFERENCE:METHOD FOR THE DETERMINATION OF EXTRACTABLE PETROLEUM
HYDROCARBONS (EPH), MADEP-EPH-98-1
MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
JANUARY 1998
FOLLOWING THE GUIDELINES OF THE NORTH CAROLINA DENR

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date 1/14/99
 Calibration Ranges and Limits

Range	MDL	ML	RL
C9 -C18 Aliphatics	11	33	100
C19 - C36 Aliphatics	8	25	100
C11 -C22 Aromatics	4	13	100

NOTE: Please include units as appropriate

Method of Quantitation (circle one): Curve or Average Response Factor
 Calibration Concentration Levels

Range	Levels	%RSD or CCC
C9 -C18 Aliphatics	30 <i>ug/ml</i>	9.9
	120	
	300	
	600	
	1200	
C19 -C36 Aliphatics	40 <i>ug/ml</i>	3.4
	160	
	400	
	800	
	1600	
C11 - C22 Aromatics	85 <i>ug/ml</i>	11
	340	
	850	
	1700	
	3400	

NOTE: Please indicate units as appropriate.

Calibration Check Date 3/2/99 - 3/3/99
 Calibration Check

Range	Level	RPD
C9 -C18 Aliphatics	3.20	0.3
C19 - C36 Aliphatics	4.70	1.3
C11 -C22 Aromatics	850	7.3

MDL = Method Detection Limit

RPD = Relative Percent Difference

ML = Minimum Limit

%RSD = Percent Relative Standard Deviation

RL = Reportable Limit

CCC = Correlation Coefficient of Curve

EPH/VPH Certification

Toxikon Order 9902400

VPH Soil Sample Collection Option _____

Option 1 = Fill line on vial Option 2 = Sampling Device Option 3 = Field weight of soil

Were all QA/QC procedures REQUIRED by the VPH method followed? Yes No Were all QA/QC procedures REQUIRED by the EPH method followed? Yes No Were all performance/acceptance standards for the required QA/QC
procedures achieved? Yes No

Details regarding any answer of "No" above are provided below.

Were any significant modifications made to the EPH/VPH methods
as specified in Section 11.3? Yes No I attest under the pains and penalties of perjury that, based upon my inquiry of those
individuals immediately responsible for obtaining the information, the material contained
in this report is, to the best of my knowledge and belief, accurate and complete.Signature: Douglas Sheeley Position: Laboratory Manager
Printed Name: Douglas Sheeley Date: 3/13/99

CASE NARRATIVE

Work Order: 9902400

All samples were analyzed within the method holding times.

No target compounds were detected in the method blanks.

SURROGATE RECOVERY EXTRACTABLE PETROLEUM HYDROCARBONS

PROJECT: 9902400

MATRIX: SOIL

QC Limit 40 - 140

**Chloro-octadecane (COD)
Ortho-terphenyl (OTP)**

D - Indicates Diluted Out
INT - Indicates Interference

TOXIKON

EPH --- QUALITY CONTROL DATA SHEET

PROJECT # : 9902400
MATRIX : SOIL
UNITS : mg/Kg
INSTRUMENT : HP 7

DATE EXTRACTED : 2/24/99
DATE ANALYZED : 3/2/99
METHOD : EPH
DETECTOR : FID

COMPOUND	LCS CONC.	LCS REC.	MS CONC.	MS REC.
NONANE C9	12.9	51.6	12	48.0
TETRADECANE C14	16.8	67.2	16.1	64.4
NONADECANE C19	24.7	98.8	26	104.0
EICOSANE C20	25.4	101.6	27.6	110.4
OCTACOSANE C28	16.7	66.8	16.7	66.8
NAPHTHALENE	2.88	11.5	3.95	15.8
ACENAPHTHENE	14.6	58.4	14.6	58.4
ANTHRACENE	1.61	6.44	2.17	8.68
PYRENE	15.2	60.8	15	60.0
CHRYSENE	14.6	58.4	14.2	56.8

D - Indicates Diluted Out

INT - Indicates Interference

NC-Indicates Not Calculated Due to Matrix Interferences

SURROGATE RECOVERY EXTRACTABLE PETROLEUM HYDROCARBONS

PROJECT: 9902400

MATRIX: WATER

QC Limit 40 - 140

Chloro-octadecane (COD)
Ortho-terphenyl (OTP)

D - Indicates Diluted Out
INT - Indicates Interference

TOXIKON

EPH --- QUALITY CONTROL DATA SHEET

PROJECT # : 9902400
MATRIX : WATER
UNITS : ug/L
INSTRUMENT : HP 7

DATE EXTRACTED : 2/24/99
DATE ANALYZED : 3/2/99
METHOD : EPH
DETECTOR : FID

COMPOUND	LCS CONC.	LCS REC.	LCSD CONC.	LCSD REC.
NONANE C9	10.5	42.0	10.8	43.2
TETRADECANE C14	7.27	29.1	6.11	24.4
NONADECANE C19	11.7	46.8	9.85	39.4
EICOSANE C20	15.1	60.4	15.0	60.0
OCTACOSANE C28	10.8	43.2	9.79	39.2
NAPHTHALENE	10.3	41.2	7.72	30.9
ACENAPHTHENE	20.0	80.0	19.8	79.2
ANTHRACENE	16.8	67.2	17.9	71.6
PYRENE	17.5	70.0	18.0	72.0
CHRYSENE	16.0	64.0	16.6	66.4

D - Indicates Diluted Out

INT - Indicates Interference

NC-Indicates Not Calculated Due to Matrix Interferences

Lab Report

From: NC Certification No. 402
SC Certification No. 99012
NC Drinking Water Cert. No. 37735
FL Certification No. E87519



March 15, 1999

To: Mr. Greg Melia
Chemical & Environmental Tech
102-A Woodwinds Industrial Ct
Cary, NC 27511
Project: Amtrack (1040-98-110)

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. AB22479 Customer Code: CET
Login Group #: 4858E4 Customer Reference: CET
Phone Number: (919)467-3090/fax(919)467-3515
Customer Sample I.D#: 156823-N05A
Sample collection date: 02/18/99 Time: 14:30
Lab submittal date: 03/10/99 Time: 10:30
Received by: KJE Validated by: ADO

Parameter: SEMI-VOLATILE ORGANICS BY 625
Method reference: EPA 625 Unit: ug/L
Result: see below
Date started: 03/12/99 Date finished: 03/12/99
Time started: 03:33 Analyst: HWC

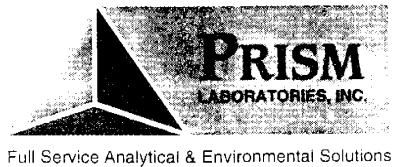
Parameter: TICs BY SEMIVOLATILE GC/MS
Method reference: 625/8270 Unit:
Result: see below
Date started: 03/12/99 Date finished: 03/12/99
Time started: 03:33 Analyst: HWC

Data for SEMI-VOLATILE ORGANICS BY 625 ug/L:

Component Name	Result	Component MDL
ACENAPHTHENE	Not detected	10
ACENAPHTHYLENE	Not detected	10
ANTHRACENE	Not detected	10
BENZO(A)ANTHRACENE	Not detected	10
BENZO(B)FLUORANTHENE	Not detected	10
BENZO(K)FLUORANTHENE	Not detected	10
BENZO(A)PYRENE	Not detected	10
BENZO(GHI)PERYLENE	Not detected	10
BIS(2-CHLOROETHOXY)METHANE	Not detected	10
BIS(2-CHLOROETHYL)ETHER	Not detected	10
BIS(2-CHLOROISOPROPYL)ETHER	Not detected	10
BIS(2-ETHYLHEXYL)PHTHALATE	Not detected	10
4-BROMOPHENYL PHENYL ETHER	Not detected	10
BUTYL BENZYL PHTHALATE	Not detected	10
4-CHLORO-3-METHYLPHENOL	Not detected	10

Lab Report

Mr. Greg Melia Sample I.D. AB22479 (continued)
Page: 2
March 15, 1999



Data for SEMI-VOLATILE ORGANICS BY 625 (continued):

Component Name	Result	Component MDL
2-CHLORONAPHTHALENE	Not detected	10
2-CHLOROPHENOL	Not detected	10
4-CHLOROPHENYL PHENYL ETHER	Not detected	10
CHRYSENE	Not detected	10
DIBENZO(A, H) ANTHRACENE	Not detected	10
DI-N-BUTYLPHTHALATE	Not detected	10
1, 2-DICHLOROBENZENE	Not detected	10
1, 3-DICHLOROBENZENE	Not detected	10
1, 4-DICHLOROBENZENE	Not detected	10
2, 4-DICHLOROPHENOL	Not detected	10
DIETHYL PHTHALATE	Not detected	10
2, 4-DIMETHYLPHENOL	Not detected	10
DIMETHYL PHTHALATE	Not detected	10
2, 4-DINITROPHENOL	Not detected	50
2, 4-DINITROTOLUENE	Not detected	10
2, 6-DINITROTOLUENE	Not detected	10
DI-N-OCTYLPHTHALATE	Not detected	10
FLUORANTHENE	Not detected	10
FLUORENE	Not detected	10
HEXACHLOROBENZENE	Not detected	10
HEXACHLOROBUTADIENE	Not detected	10
HEXACHLOROCYCLOPENTADIENE	Not detected	10
HEXACHLOROETHANE	Not detected	10
INDENO(1, 2, 3-CD)PYRENE	Not detected	10
ISOPHORONE	Not detected	10
2-METHYL-4, 6-DINITROPHENOL	Not detected	50
NAPHTHALENE	Not detected	10
NITROBENZENE	Not detected	10
2-NITROPHENOL	Not detected	10
4-NITROPHENOL	Not detected	50
N-NITROSODIPHENYLAMINE	Not detected	10
N-NITROSODI-N-PROPYLAMINE	Not detected	10
PENTACHLOROPHENOL	Not detected	50
PHENANTHRENE	Not detected	10
PHENOL	Not detected	10
PYRENE	Not detected	10
1, 2, 4-TRICHLOROBENZENE	Not detected	10
2, 4, 6-TRICHLOROPHENOL	Not detected	10
BENZIDINE	Not detected	100
1, 2-DIPHENYLHYDRAZINE	Not detected	100

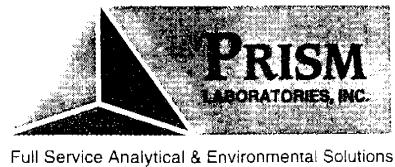
Data for TICs BY SEMIVOLATILE GC/MS:

625/8270 Tentatively Identified Compounds (10-largest TICs):

<Identification Class>	<Closest Spectral Fit>	<Est. Conc.>
=====	=====	=====
Unknown	(mol. Sulfur)	18 ug/L

Lab Report

Mr. Greg Melia Sample I.D. AB22479 (continued)
Page: 3
March 15, 1999



Full Service Analytical & Environmental Solutions

Sample comments:

Project name: Amtrack (1040-98-110)
Sample extracted by CET.

If there are any questions regarding this data, please call.

A handwritten signature in black ink, appearing to read "AO".

Angela D. Overcash
Laboratory Director

Appendix VI
Soil Samples Taken Near Waste Oil UST

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC /NC DOT
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/17/99

NCDOT AMTRAK STATION #9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156827 SAMPLE ID- WO-1
DATE SAMPLED- 02/16/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1345
RECEIVED BY- HLH

Page 1 of 1 PROJECT NAME : NCDOT/AM.STATN

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	PQL
		DATE	BY	DATE		
PERCENT SOLIDS	2540G		02/22/99	HLH	72.8 NA	
HIGH FRACTION HYDROCARBON	3550	02/24/99	AEK	02/25/99	JBR	158 mg/kg 10.0
CHROMIUM IN SOLID	6010	02/23/99	BWH	03/05/99	JMM	17.5 mg/kg 0.3
LEAD IN SOLID	7421	02/23/99	BWH	03/02/99	JMM	11.8 mg/kg 0.3

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

HIGH FRACTION HYDROCARBON CONTAMINANT WAS IDENTIFIED AS MOTOR OIL;
QUANTITATED AS MOTOR OIL.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

Jenice Litzberger

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC /NC DOT
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/17/99

NCDOT AMTRAK STATION #9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156826 SAMPLE ID- WO-2
DATE SAMPLED- 02/16/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1315
RECEIVED BY- HLH

Page 1 of 1

PROJECT NAME : NCDOT/AM.STATN

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
PERCENT SOLIDS	2540G			02/22/99	HLH	68.0	NA
HIGH FRACTION HYDROCARBON	3550	02/24/99	AEK	02/25/99	JBR	389	mg/kg
CHROMIUM IN SOLID	6010	02/23/99	BWH	03/05/99	JMM	168	mg/kg
LEAD IN SOLID	7421	02/23/99	BWH	03/02/99	JMM	7.1	mg/kg

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

HIGH FRACTION HYDROCARBON CONTAMINANT WAS IDENTIFIED AS MOTOR OIL;
QUANTITATED AS MOTOR OIL.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

Denie L. Berg

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC /NC DOT
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/17/99

NCDOT AMTRAK STATION #9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156828 SAMPLE ID- WO-3
DATE SAMPLED- 02/16/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1430
RECEIVED BY- HLH

Page 1 of 1

PROJECT NAME : NCDOT/AM.STATN

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	PQL
		DATE	BY	DATE		
PERCENT SOLIDS	2540G			02/22/99	HLH	75.3 NA
HIGH FRACTION HYDROCARBON	3550	02/24/99	AEK	02/25/99	JBR	94.5 mg/kg
CHROMIUM IN SOLID	6010	02/23/99	BWH	03/05/99	JMM	25.7 mg/kg
LEAD IN SOLID	7421	02/23/99	BWH	03/02/99	JMM	0.9 mg/kg

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

HIGH FRACTION HYDROCARBON CONTAMINANT WAS IDENTIFIED AS MOTOR OIL;
QUANTITATED AS MOTOR OIL.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR



CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

MAR 18 1999

FINAL REPORT OF ANALYSES

S & ME, INC /NC DOT
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/17/99

NCDOT AMTRAK STATION #9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156825 SAMPLE ID- WO-4S
DATE SAMPLED- 02/16/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 0950
RECEIVED BY- HLH

Page 1 of 1

PROJECT NAME : NCDOT/AM.STATN

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	PQL
		DATE	BY	DATE		
PERCENT SOLIDS	2540G		02/22/99	HLH	65.6 NA	
HIGH FRACTION HYDROCARBON	3550	02/24/99	AEK	02/25/99	JBR	148 mg/kg
CHROMIUM IN SOLID	6010	02/23/99	BWH	03/05/99	JMM	137 mg/kg
LEAD IN SOLID	7421	02/23/99	BWH	03/02/99	JMM	16.6 mg/kg

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

HIGH FRACTION HYDROCARBON CONTAMINANT WAS IDENTIFIED AS MOTOR OIL;
QUANTITATED AS MOTOR OIL.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

Jenie Fettyberg

Appendix VII
Groundwater Samples Taken Near Waste Oil UST

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC /NC DOT
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/16/99

NCDOT AMTRAK STATION #9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156824 SAMPLE ID- WO-4W
DATE SAMPLED- 02/16/99
DATE RECEIVED- 02/19/99 SAMPLER- HAYTHEM KASEM
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- GW
TIME SAMPLED- 1045
RECEIVED BY- HLH

Page 1 of 5

PROJECT NAME : NCDOT/AM.STATN

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
MODIFIED EPA 8021	EPA 8021		02/24/99	ALT			
ISOPROPYL ETHER (IPE)	EPA 8021				< 1.0	ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 8021				< 1.0	ug/L	1.0
VOLATILE ORGANIC COMPOUNDS	8021		02/24/99	ALT			
BENZENE	8021				< 0.5	ug/L	0.5
BROMOBENZENE	8021				< 0.5	ug/L	0.5
BROMOCHLOROMETHANE	8021				< 0.5	ug/L	0.5
BROMODICHLOROMETHANE	8021				< 0.5	ug/L	0.5
BROMOFORM	8021				< 0.5	ug/L	0.5
BROMOMETHANE	8021				< 0.5	ug/L	0.5
n-BUTYLBENZENE	8021				< 0.5	ug/L	0.5
sec-BUTYLBENZENE	8021				< 0.5	ug/L	0.5
tert-BUTYLBENZENE	8021				< 0.5	ug/L	0.5
CARBON TETRACHLORIDE	8021				< 0.5	ug/L	0.5
CHLOROBENZENE	8021				< 0.5	ug/L	0.5
CHLOROETHANE	8021				< 0.5	ug/L	0.5
CHLOROFORM	8021				0.7	ug/L	0.5
CHLOROMETHANE	8021				< 0.5	ug/L	0.5
2-CHLOROTOLUENE	8021				< 0.5	ug/L	0.5
4-CHLOROTOLUENE	8021				< 0.5	ug/L	0.5
DIBROMOCHLOROMETHANE	8021				< 0.5	ug/L	0.5

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 2 of 5

PROJECT NAME : NCDOT/AM.STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156824

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT	UNITS	PQL
		DATE	BY	DATE			
1, 2-DIBROMO-3-CHLOROPROPANE	8021				< 0.5	ug/L	0.5
1, 2-DIBROMOETHANE	8021				< 0.5	ug/L	0.5
DIBROMOMETHANE	8021				< 0.5	ug/L	0.5
1, 2-DICHLOROBENZENE	8021				< 0.5	ug/L	0.5
1, 3-DICHLOROBENZENE	8021				< 0.5	ug/L	0.5
1, 4-DICHLOROBENZENE	8021				< 0.5	ug/L	0.5
DICHLORODIFLUOROMETHANE	8021				< 0.5	ug/L	0.5
1, 1-DICHLOROETHANE	8021				1.8	ug/L	0.5
1, 2-DICHLOROETHANE	8021				0.5	ug/L	0.5
1, 1 DICHLOROETHENE	8021				< 0.5	ug/L	0.5
cis-1, 2-DICHLOROETHENE	8021				1.9	ug/L	0.5
trans-1, 2-DICHLOROETHENE	8021				< 0.5	ug/L	0.5
1, 2-DICHLOROPROPANE	8021				< 0.5	ug/L	0.5
1, 3-DICHLOROPROPANE	8021				< 0.5	ug/L	0.5
2, 2-DICHLOROPROPANE	8021				< 0.5	ug/L	0.5
1, 1-DICHLOROPROPENE	8021				< 0.5	ug/L	0.5
cis-1, 3-DICHLOROPROPENE	8021				< 0.5	ug/L	0.5
trans-1, 3-DICHLOROPROPENE	8021				< 0.5	ug/L	0.5
ETHYLBENZENE	8021				< 0.5	ug/L	0.5
HEXACHLOROBUTADIENE	8021				< 0.5	ug/L	0.5
ISOPROPYLBENZENE	8021				< 0.5	ug/L	0.5
p-ISOPROPYLtolUENE	8021				< 0.5	ug/L	0.5
METHLYENE CHLORIDE	8021				1.0	ug/L	0.5
NAPHTHALENE	8021				0.6	ug/L	0.5
n-PROPYLBENZENE	8021				< 0.5	ug/L	0.5
STYRENE	8021				< 0.5	ug/L	0.5
1, 1, 1, 2-TETRACHLOROETHANE	8021				< 0.5	ug/L	0.5
1, 1, 2, 2-TETRACHLOROETHANE	8021				< 0.5	ug/L	0.5
TETRACHLOROETHENE	8021				< 0.5	ug/L	0.5
TOLUENE	8021				< 0.5	ug/L	0.5
1, 2, 3-TRICHLOROBENZENE	8021				< 0.5	ug/L	0.5

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 3 of 5

PROJECT NAME : NCDOT/AM.STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156824

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT UNITS	PQL
1,2,4-TRICHLOROBENZENE	8021				< 0.5 ug/L	0.5
1,1,1-TRICHLOROETHANE	8021				< 0.5 ug/L	0.5
1,1,2-TRICHLOROETHANE	8021				< 0.5 ug/L	0.5
TRICHLOROETHENE	8021				< 0.5 ug/L	0.5
TRICHLOROFLUOROMETHANE	8021				< 0.5 ug/L	0.5
1,2,3-TRICHLOROPROPANE	8021				< 0.5 ug/L	0.5
1,2,4-TRIMETHYLBENZENE	8021				< 0.5 ug/L	0.5
1,3,5-TRIMETHYLBENZENE	8021				< 0.5 ug/L	0.5
VINYL CHLORIDE	8021				< 0.5 ug/L	0.5
o-XYLENE	8021				< 0.5 ug/L	0.5
m,p-XYLENES	8021				0.5 ug/L	0.5
SURROGATE a	8021				115 percent	-
SURROGATE b	8021				101 percent	-
BASE NEUTRAL/ACIDS IN WATER	8270	02/23/99	AEK 03/12/99	***	*	
BASE NEUTRAL	8270				* ug/L	
ACENAPHTHENE	8270				* ug/L	
ACENAPHTHYLENE	8270				* ug/L	
ANILINE	8270				* ug/L	
ANTHRACENE	8270				* ug/L	
BENZIDINE	8270				* ug/L	
BENZO(a) ANTHRACENE	8270				* ug/L	
BENZO(b) FLUORANTHENE	8270				* ug/L	
BENZO(k) FLUORANTHENE	8270				* ug/L	
BENZO(g, h, i) PERYLENE	8270				* ug/L	
BENZO(a) PYRENE	8270				* ug/L	
BENZYL ALCOHOL	8270				* ug/L	
bis-(2-CHLOROETHYL) ETHER	8270				* ug/L	
bis-(2-CHLOROETHOXY) METHANE	8270				* ug/L	
bis-(2-CHLOROISOPROPYL) ETHER	8270				* ug/L	
bis-(2-ETHYLHEXYL) PHTHALATE	8270				* ug/L	
4-BROMOPHENYL PHENYL ETHER	8270				* ug/L	

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 4 of 5

PROJECT NAME : NCDOT/AM.STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156824

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
BUTYL BENZYL PHTHALATE	8270				*	ug/L	
4-CHLOROANILINE	8270				*	ug/L	
2-CHLORONAPHTHALENE	8270				*	ug/L	
4-CHLOROPHENYL PHENYL ETHER	8270				*	ug/L	
CHRYSENE	8270				*	ug/L	
DIBENZO(a, h) ANTHRACENE	8270				*	ug/L	
DIBENZOFURAN	8270				*	ug/L	
di-n-BUTYLPHthalate	8270				*	ug/L	
1, 2-DICHLOROBENZENE	8270				*	ug/L	
1, 3-DICHLOROBENZENE	8270				*	ug/L	
1, 4-DICHLOROBENZENE	8270				*	ug/L	
3, 3'-DICHLOROBENZIDINE	8270				*	ug/L	
DIETHYL PHTHALATE	8270				*	ug/L	
DIMETHYL PHTHALATE	8270				*	ug/L	
2, 4-DINITROTOLUENE	8270				*	ug/L	
2, 6-DINITROTOLUENE	8270				*	ug/L	
di-n-OCTYLPHthalate	8270				*	ug/L	
FLUORANTHENE	8270				*	ug/L	
FLUORENE	8270				*	ug/L	
HEXACHLOROBENZENE	8270				*	ug/L	
HEXACHLOROBUTADIENE	8270				*	ug/L	
HEXACHLOROCYCLOPENTADIENE	8270				*	ug/L	
HEXACHLOROETHANE	8270				*	ug/L	
INDENO(1, 2, 3-cd) PYRENE	8270				*	ug/L	
ISOPHORONE	8270				*	ug/L	
2-METHYLNAPHTHALENE	8270				*	ug/L	
NAPHTHALENE	8270				*	ug/L	
2-NITROANILINE	8270				*	ug/L	
3-NITROANILINE	8270				*	ug/L	
4-NITROANILINE	8270				*	ug/L	
NITROBENZENE	8270				*	ug/L	

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 5 of 5

PROJECT NAME : NCDOT/AM.STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156824

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
N-NITROSODIMETHYLAMINE	8270				*	ug/L	
N-NITROSODIPHENYLAMINE	8270				*	ug/L	
N-NITROSODI-n-PROPYLAMINE	8270				*	ug/L	
PHENANTHRENE	8270				*	ug/L	
PYRENE	8270				*	ug/L	
1, 2, 4-TRICHLOROBENZENE	8270				*	ug/L	
ACIDS	8270				*		
BENZOIC ACID	8270				*	ug/L	
4-CHLORO-3-METHYLPHENOL	8270				*	ug/L	
2-CHLOROPHENOL	8270				*	ug/L	
2, 4-DICHLOROPHENOL	8270				*	ug/L	
2, 6-DICHLOROPHENOL	8270				*	ug/L	
2, 4-DIMETHYLPHENOL	8270				*	ug/L	
2, 4-DINITROPHENOL	8270				*	ug/L	
2-METHYL-4, 6-DINITROPHENOL	8270				*	ug/L	
2-METHYLPHENOL	8270				*	ug/L	
4-METHYLPHENOL	8270				*	ug/L	
2-NITROPHENOL	8270				*	ug/L	
4-NITROPHENOL	8270				*	ug/L	
PENTACHLOROPHENOL	8270				*	ug/L	
PHENOL	8270				*	ug/L	
2, 3, 4, 6-TETRACHLOROPHENOL	8270				*	ug/L	
2, 4, 5-TRICHLOROPHENOL	8270				*	ug/L	
2, 4, 6-TRICHLOROPHENOL	8270				*	ug/L	

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

* PLEASE REFER TO ENCLOSED REPORT FROM PRISM LABORATORIES FOR EPA 8270 RESULTS.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

Jeni Fingher

Chemical & Environmental Technology, Inc.
1000 Awatone Drive • Suite 100 • San Leandro, CA 94577 • (510) 226-1111

102-A Woodwinds Industrial Ct. Cary, NC 27511
(919) 467-3090 FAX: (919) 467-3515

CHAIN OF CUSTODY

Page 1 of 1

*Rush work requires laboratory approval prior to sample submission. Additional charges may apply.

Lab Report

From: NC Certification No. 402
SC Certification No. 99012
NC Drinking Water Cert. No. 37735
FL Certification No. E87519



March 15, 1999

To: Mr. Greg Melia
Chemical & Environmental Tech
102-A Woodwinds Industrial Ct
Cary, NC 27511
Project: Amtrack (1040-98-110)

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. AB22480 Customer Code: CET
Login Group #: 4858E4 Customer Reference: CET
Phone Number: (919)467-3090/fax(919)467-3515
Customer Sample I.D#: 156824-W04W
Sample collection date: 02/16/99 Time: 10:45
Lab submittal date: 03/10/99 Time: 10:30
Received by: KJE Validated by: ADO

Parameter: SEMI-VOLATILE ORGANICS BY 8270
Method reference: SW846-8270 Unit: ug/L
Result: see below
Date started: 03/12/99 Date finished: 03/15/99
Time started: 17:54 Analyst: HWC

Parameter: TICs BY SEMIVOLATILE GC/MS
Method reference: 625/8270 Unit:
Result: see below
Date started: 03/12/99 Date finished: 03/15/99
Time started: 17:54 Analyst: HC

Data for SEMI-VOLATILE ORGANICS BY 8270 ug/L:

Component Name	Result	Component MDL
2-CHLOROPHENOL	Not detected	10
BIS(2-CHLOROETHYL)ETHER	Not detected	10
PHENOL	Not detected	10
1, 3-DICHLOROBENZENE	Not detected	10
1, 2-DICHLOROBENZENE	Not detected	10
1, 4-DICHLOROBENZENE	Not detected	10
BIS(2-CHLOROISOPROPYL)ETHER	Not detected	10
2-METHYL PHENOL (O CRESOL)	Not detected	10
HEXACHLOROETHANE	Not detected	10
N-NITROSO-DI-N-PROPYLAMINE	Not detected	10
NITROBENZENE	Not detected	10
4-METHYL PHENOL (P CRESOL)	Not detected	10
ISOPHORONE	Not detected	10
2-NITROPHENOL	Not detected	10
4-NITROPHENOL	Not detected	50

Lab Report

Mr. Greg Melia
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March 15, 1999

Sample I.D. AB22480 (continued)



Full Service Analytical & Environmental Solutions

Data for SEMI-VOLATILE ORGANICS BY 8270 (continued):

Component Name	Result	Component MDL
2, 4 DIMETHYL PHENOL	Not detected	10
BIS(2-CHLOROETHOXY)METHANE	Not detected	10
1, 2, 4 TRICHLOROBENZENE	Not detected	10
NAPHTHALENE	Not detected	10
HEXACHLOROBUTADIENE	Not detected	10
2-METHYL NAPHTHALENE	Not detected	10
4-CHLORO-3-METHYL PHENOL	Not detected	10
HEXACHLOROCYCLOPENTADIENE	Not detected	10
2, 4, 6 TRICHLOROPHENOL	Not detected	10
2-CHLORONAPHTHALENE	Not detected	10
2, 4, 5 TRICHLOROPHENOL	Not detected	10
ACENAPHTHYLENE	Not detected	10
DIMETHYL PHTHALATE	Not detected	10
2, 6-DINITROTOLUENE	Not detected	10
2, 4-DICHLOROPHENOL	Not detected	10
ACENAPHTHENE	Not detected	10
DIBENZOFURAN	Not detected	10
2, 4 DINITROPHENOL	Not detected	50
2, 4 DINITROTOLUENE	Not detected	10
FLUORENE	Not detected	10
4-CHLOROPHENYL PHENYL ETHER	Not detected	10
DIETHYL PHTHALATE	Not detected	10
4, 6-DINITRO-2-METHYL PHENOL	Not detected	50
N-NITROSODIPHENYLAMINE	Not detected	10
4-BROMOPHENYL PHENYL ETHER	Not detected	10
HEXACHLOROBENZENE	Not detected	10
PENTACHLOROPHENOL	Not detected	10
ANTHRACENE	Not detected	10
DI-N-BUTYL PHTHALATE	Not detected	10
FLUORANTHENE	Not detected	10
PYRENE	Not detected	10
BUTYL BENZYL PHTHALATE	Not detected	10
CHRYSENE	Not detected	10
BENZO(A)ANTHRACENE	Not detected	10
BIS(2-ETHYLHEXYL)PHTHALATE	Not detected	10
DI-N-OCTYL PHTHALATE	Not detected	10
BENZO(B)FLUORANTHENE	Not detected	10
BENZO(K)FLUORANTHENE	Not detected	10
BENZO(A)PYRENE	Not detected	10
INDENO(1, 2, 3-C, D)PYRENE	Not detected	10
DIBENZO(A, H)ANTHRACENE	Not detected	10
BENZO(G, H, I)PERYLENE	Not detected	10
PHENANTHRENE	Not detected	10

Data for TICs BY SEMIVOLATILE GC/MS:

625/8270 Tentatively Identified Compounds (10-largest TICs):

<Identification Class>	<Closest Spectral Fit>	<Est. Conc.>
=====	=====	=====

Lab Report

Mr. Greg Melia
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March 15, 1999

Sample I.D. AB22480 (continued)



Full Service Analytical & Environmental Solutions

Data for TICs BY SEMIVOLATILE GC/MS (continued):

Unknown	(Naphthalenecarboxylic acid)	6 ug/L
Unknown	(Unknown)	12 ug/L

Sample comments:

Project name: Amtrack (1040-98-110)
Sample extracted by CET.

If there are any questions regarding this data, please call.

A handwritten signature in black ink, appearing to read "AO".

Angela D. Overcash
Laboratory Director



Cnematic Environmental Technology, Inc.

102-A Woodwinds Industrial Ct. Cary, NC 27511
(919) 467-3090 FAX: (919) 467-3515

CHAIN OF CUSTODY

102-A Woodwinds Industrial Ct. Cary, NC 27511
(919) 467-3090 FAX: (919) 467-3515

2nd Priority

Appendix VIII
Soil Samples Analyzed for TCLP

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

S & ME, INC /NC DOT
9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273-
Attn: AL QUARLES

REPORT DATE: 03/17/99

NCDOT AMTRAK STATION #9.908024P / S&ME# 1040-98-110

SAMPLE NUMBER- 156833 SAMPLE ID- TCLP-1
DATE SAMPLED- 02/17/99
DATE RECEIVED- 02/19/99 SAMPLER- KASEM/BRASWELL
TIME RECEIVED- 1016 DELIVERED BY- FED EX

SAMPLE MATRIX- SO
TIME SAMPLED- 1315
RECEIVED BY- HLH

Page 1 of 2

PROJECT NAME : NCDOT/AM.STATN

ANALYSIS	METHOD	DATE	SAMPLE PREP	ANALYSIS	RESULT UNITS	PQL
PERCENT SOLIDS	2540G		02/22/99	HLH	87.7 NA	
CORROSIVITY AS pH	9040		03/02/99	LEB	8.06	0.1
CYANIDE IN SOLID	9010	02/23/99	LEB	02/24/99 LEB	<0.178 mg/kg	0.178
FLASHPOINT	1020		03/01/99	RMC	>90 degrees C	N/A
SULFIDE	EPA376.1		02/23/99	LEB	<2.4 mg/kg	2.4
REACTIVITY	7.3	02/23/99	LEB	03/09/99 LEB		
HYDROGEN CYANIDE FROM WASTES	7.3				<0.178 mg/kg	0.178
HYDROGEN SULFIDE FROM WASTES	7.3				<2.4 mg/kg	2.4
TCLP-PESTICIDES 1311/8270	8270	03/01/99	AEK	03/11/99 ***		
CHLORDANE	8270				* ug/L	
ENDRIN	8270				* ug/L	
HEPTACHLOR	8270				* ug/L	
HEPTACHLOR EPOXIDE	8270				* ug/L	
LINDANE	8270				* ug/L	
METHOXYCHLOR	8270				* ug/L	
TOXAPHENE	8270				* ug/L	
TCLP-SEMI VOLATILES 1311/8270	8270	03/01/99	AEK	03/11/99 ***		
o-CRESOL	8270				* ug/L	
m,p-CRESOL	8270				* ug/L	
2,4-DINITROTOLUENE	8270				* ug/L	
HEXACHLOROBENZENE	8270				* ug/L	

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

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PROJECT NAME : NCDOT/AM.STATN

CONTINUATION OF DATA FOR SAMPLE NUMBER 156833

ANALYSIS	METHOD	SAMPLE DATE	PREP DATE	ANALYSIS BY	RESULT	UNITS	PQL
HEXACHLOROBUTADIENE	8270				*	ug/L	
HEXACHLOROETHANE	8270				*	ug/L	
NITROBENZENE	8270				*	ug/L	
PENTACHLOROPHENOL	8270				*	ug/L	
PYRIDINE	8270				*	ug/L	
2,4,5-TRICHLOROPHENOL	8270				*	ug/L	
2,4,6-TRICHLOROPHENOL	8270				*	ug/L	
TCLP VOLATILES EPA 1311	8015/8020	03/01/99	ALT	03/12/99 ALT			
BENZENE	8015/8020				< 5.0	ug/L	5.0
CARBON TETRACHLORIDE	8015/8020				< 5.0	ug/L	5.0
CHLOROBENZENE	8015/8020				< 5.0	ug/L	5.0
CHLOROFORM	8015/8020				< 5.0	ug/L	5.0
1,4-DICHLOROBENZENE	8015/8020				< 5.0	ug/L	5.0
1,2-DICHLOROETHANE	8015/8020				< 5.0	ug/L	5.0
1,1-DICHLOROETHENE	8015/8020				< 5.0	ug/L	5.0
TETRACHLOROETHENE	8015/8020				< 5.0	ug/L	5.0
TRICHLOROETHENE	8015/8020				< 5.0	ug/L	5.0
VINYL CHLORIDE	8015/8020				< 10.0	ug/L	10.0
METHYL ETHYL KETONE	8015/8020				< 50.0	ug/L	50.0
TCLP-HERBICIDES	8150	03/01/99	AEK	03/16/99 ALT			
2,4-D	8150				< 1.0	ug/L	1.0
SILVEX	8150				< 1.0	ug/L	1.0
TCLP ARSENIC	6010	02/22/99	BWH	03/05/99 JMM	<0.1	mg/L	0.1
TCLP BARIUM	6010	02/22/99	BWH	03/05/99 JMM	0.9	mg/L	0.1
TCLP CADMIUM	6010	02/22/99	BWH	03/05/99 JMM	<0.005	mg/L	0.005
TCLP CHROMIUM	6010	02/22/99	BWH	03/05/99 JMM	0.005	mg/L	0.005
TCLP LEAD	6010	02/22/99	BWH	03/05/99 JMM	0.1	mg/L	0.1
TCLP MERCURY	7471	02/22/99	BWH	02/26/99 BWH	0.0002	mg/L	0.0002
TCLP SELENIUM	6010	02/22/99	BWH	03/05/99 JMM	<0.1	mg/L	0.1
TCLP SILVER	6010	02/22/99	BWH	03/05/99 JMM	<0.005	mg/L	0.005

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

* PLEASE REFER TO ENCLOSED REPORT FROM PRISM LABORATORIES FOR
TCLP SEMI-VOLATILES AND TCLP-PESTICIDE RESULTS.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

Lab Report

From: NC Certification No. 402
SC Certification No. 99012
NC Drinking Water Cert. No. 37735
FL Certification No. E87519



Full Service Analytical & Environmental Solutions

March 16, 1999

To: Mr. Greg Melia
Chemical & Environmental Tech
102-A Woodwinds Industrial Ct
Cary, NC 27511
Project: Amtrack

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. AB22503 Customer Code: CET
Login Group #: 4864E1 Customer Reference: CET
Phone Number: (919)467-3090/fax(919)467-3515
Customer Sample I.D#: TCLP 11156833
Sample collection date: 02/17/99 Time: 13:15
Lab submittal date: 03/10/99 Time: 10:03
Received by: KJE Validated by: ADO

Parameter: TCLP SEMI-VOLATILES BY 8270
Method reference: SW846-8270 Unit: mg/L
Result: see below
Date started: 03/11/99 Date finished: 03/12/99
Time started: 17:37 Analyst: HWC

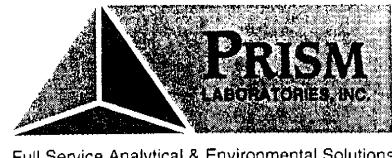
Parameter: TCLP PESTICIDES, BY 8270
Method reference: SW-846 8081 Unit: mg/L
Result: see below
Date started: 03/11/99 Date finished: 03/16/99
Time started: 17:37 Analyst: HWC

Data for TCLP SEMI-VOLATILES BY 8270 mg/L:

Component Name	Result	Component MDL
CRESOLS	Not detected	0.050
1, 4-DICHLOROBENZENE	Not detected	0.050
2, 4-DINITROTOLUENE	Not detected	0.012
HEXACHLOROBENZENE	Not detected	0.010
HEXACHLOROBUTADIENE	Not detected	0.050
HEXACHLOROETHANE	Not detected	0.050
NITROBENZENE	Not detected	0.050
PENTACHLOROPHENOL	Not detected	0.25
PYRIDINE	Not detected	0.25
2, 4, 5-TRICHLOROPHENOL	Not detected	0.25
2, 4, 6-TRICHLOROPHENOL	Not detected	0.10

Lab Report

Mr. Greg Melia Sample I.D. AB22503 (continued)
Page: 2
March 16, 1999



Full Service Analytical & Environmental Solutions

Data for TCLP PESTICIDES, BY 8270 mg/L:

Component Name	Result	Component MDL
CHLORDANE	Not detected	0.010
ENDRIN	Not detected	0.010
HEPTACHLOR	Not detected	0.010
LINDANE	Not detected	0.010
METHOXYCHLOR	Not detected	0.010
TOXAPHENE	Not detected	0.010

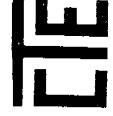
Sample comments:

Project name: Amtrack 1040-98-110
Sample extracted by CET.

If there are any questions regarding this data, please call.

A handwritten signature in black ink, appearing to read "AO".

Angela D. Overcash
Laboratory Director



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Dr. O'Connor

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*Rush work requires laboratory approval prior to sample submission. Additional charges may apply.