



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

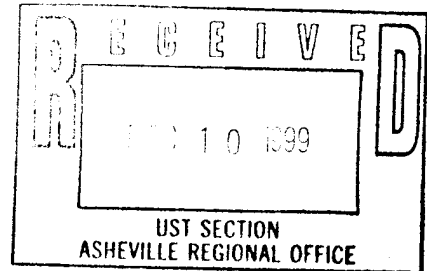
JAMES B. HUNT JR.
GOVERNOR

P.O. BOX 25201, RALEIGH, N.C. 27611-5201

DAVID McCOY
SECRETARY

December 8, 1999

Mr. Mike Streeter
DWQ - Groundwater Section
Asheville Regional Office
59 Woodfin Place
Asheville, NC 28801



SUBJECT: Letter Report – Screening, Sampling and Stockpiling of Contaminated Soils near Frank White’s Exxon on NC 18 in Morganton, NC

Dear Mr. Streeter:

Please find attached a copy of the “Letter Report” for the above referenced site. This report was prepared by Odgen Environmental and Engineering Services, Inc. for the NCDOT Geotechnical Unit/GeoEnvironmental Section. The report documents the removal of contaminated groundwater (1,644 gallons) and soil (1100 tons) from the area. The contamination was encountered as the NCDOT construction contractor was installing a waterline. Contaminated groundwater was properly disposed of by a disposal company (manifests are in the appendix of the report) and we are currently in the process of having the contaminated soil removed by a soil disposal company.

It is suspected that the contamination is from the Frank White’s Exxon, which has already been cited for a release (GWI # 13773). The station is currently inactive, but still has underground storage tanks (USTs) on the property. Abatement activities were limited to contaminated groundwater that came into the excavation trench and contaminated soil removed for the waterline installation.

Should you require more information about the site, please feel to contact me at (919) 250-4088.

Sincerely,

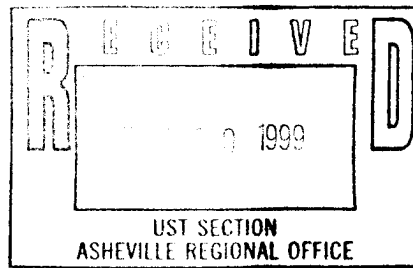
A handwritten signature in cursive script that reads "Eugene Tarascio".

Eugene Tarascio
Project Environmental Geologist
Geotechnical Unit/GeoEnvironmental Section

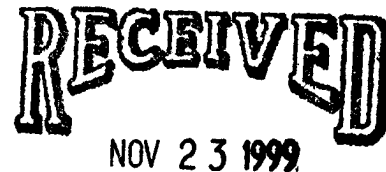
ET
Attachments

200 S. Old Statesville Road
Huntersville, NC 28078
704 875 3570
Fax 704 875 8718
Mailing Address
P.O. Box 3142
Huntersville, NC 28070

November 22, 1999



Mr. Eugene Tarascio
Project Environmental Geologist
GeoEnvironmental Section
North Carolina Department of Transportation
PO Box 25201
Raleigh, NC 27611-5201



DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL UNIT

**Subject: Letter Report – Screening, Sampling and Stockpiling of Contaminated Soils
Frank White’s Exxon, Morganton, NC
State Project No. 8.1851003 (U-2550A)**

Dear Mr. Tarascio:

Ogden Environmental and Engineering Services Co., Inc. (Ogden) is pleased to furnish the North Carolina Department of Transportation (NCDOT) with a letter report describing screening and stockpiling of contaminated soils conducted at Frank White’s Exxon. Frank White’s Exxon is located adjacent and southwest of the Highway 18 interchange with I-40 in Morganton, North Carolina. The vicinity map is presented in Figure 1.

The scope at Frank White’s Exxon included the screening and stockpiling of soil, removal and disposal of contaminated groundwater, and collection of trench and stockpile samples. This project resulted from the unexpected interception of impacted soils as NCDOT contractors installed a new drainage pipe located parallel to Highway 18.

Field Activities

Ogden assisted with the excavation and stockpiling of soil from the pipe trench on October 12, 15, 18, 19, 25, and 26, 1999. Soil Solutions Inc. of Winston-Salem was contracted to facilitate soil stockpiling, and to remove and dispose of contaminated groundwater that entered the excavation. McCormick Grading & Utilities, subcontracted by the NCDOT contractor APAC, conducted the excavation and installation of the drainage line. Soil was screened during excavation and soil with OVA readings exceeding roughly 50 ppm was removed from the excavation. Two soil stockpiles



Mr. Eugene Tarascio
November 22, 1999
Page 2

were constructed on the east and west sides of the building on the property. Stockpiles were strategically shaped to avoid covering the USTs located on the property. Unimpacted soils were separated and used as backfill after the drainage pipe was laid.

The trench was approximately 2 meters wide and 70 meters long. Pipe was laid and backfilled as excavation progressed so the entire length of the trench was not open at one time. Petroleum impacted soils were typically encountered at approximately 1.75 meters bgs and the degree of contamination increased toward the bottom of the trench (approximately 3.25 meters bgs).

Analysis of confirmatory soil samples from the excavation floor indicated the presence of total petroleum hydrocarbons (TPH) especially in the gasoline range in sample T2 located closest to the pump islands. Excavated soil was mainly stained black from petroleum hydrocarbons in the area of sample T2. The data are tabulated below and presented on Figure 2. Sample T3, collected on the last day of field activities, was obtained from beneath junction box 170 located offsite on the neighboring parcel #67. The cooler, in which this sample was submitted, was misplaced by the laboratory thus no data exist. The field screening; however, indicated that the soil in the area was not impacted. The PID readings were below three parts per million (ppm). All other samples were analyzed by PACE Laboratories for TPH in the gasoline range (GRO) and diesel range (DRO) using analytical Method 8015 with preparation Methods 8015 and 3550. The sample locations and results are also shown on Figure 2. Copies of the original laboratory reports are presented in Appendix A.

Trench Excavation Sample Results

Sample Name	Date Collected	Depth (m)	TPH-GRO	TPH-DRO	Units
T1	October 12, 1999	3.05	67	29	mg/kg
T2	October 12, 1999	3.05	1400	69	mg/kg
T3	October 26, 1999	2.70	No data	No data	No data

The final volume of the two stockpiles was 1100 tons or 760 cubic yards. The excavated soil was fairly consistent in its lithology as a dark brown, very fine-grained sandy silt. Upon completion of stockpiling, Ogden conducted stockpile sampling, pursuant to the NCDENR January 1998, Guidance Document. The 24 stockpile samples, collected from 8 borings within the piles, were composited in the lab into 4 samples. These data are shown below. Appropriate disposition of the stockpiled soil will be handled by NCDOT.



Mr. Eugene Tarascio
November 22, 1999
Page 3

Stockpile Sample Results

Sample Name	Date Collected	TPH-GRO	TPH-DRO	Units
SP1-A&B	October 15, 1999	280	16	mg/kg
SP1-C&D	October 15, 1999	26	ND	mg/kg
SP2-E&F	October 15, 1999	370	30	mg/kg
SP2B	November 17, 1999	85	18	mg/kg

Soil Solutions Inc. collected 1644 gallons of non-hazardous contaminated groundwater from the trench on October 12 and 13, 1999. This wastewater was transported for disposal on October 13, 1999 and the certificate of disposal is attached as Appendix B.

If you have any questions about the field activities or results please do not hesitate to contact me at (704) 875-3570.

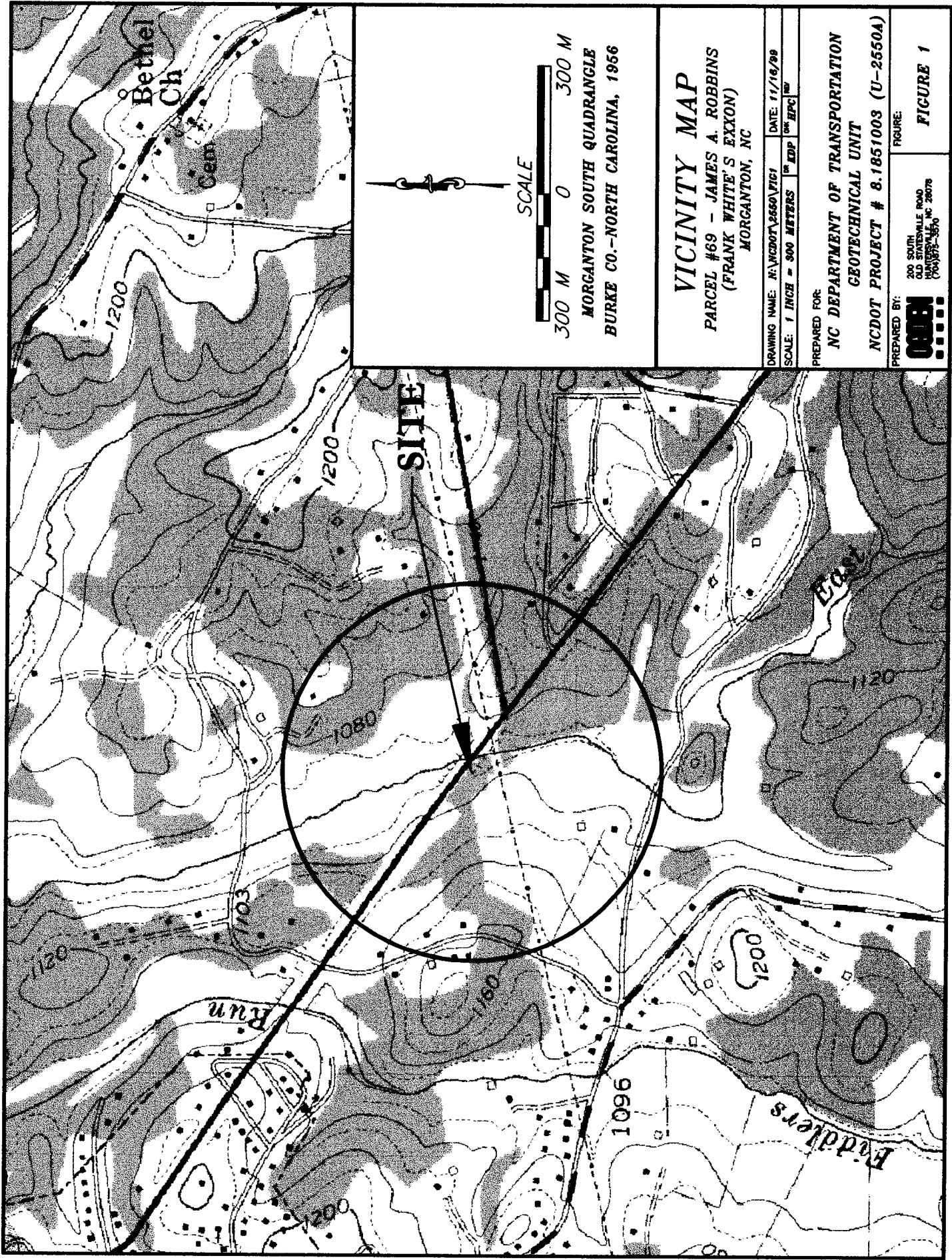
Very truly yours,
OGDEN ENVIRONMENTAL AND ENGINEERING SERVICES CO., INC.

Helen Corley

Helen Corley, P.G.
Project Manager

OGDEN
■ ■ ■ ■ ■

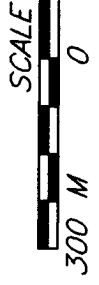
FIGURES



VICINITY MAP

PARCEL #69 - JAMES A. ROBBINS
 (FRANK WHITE'S EXXON)
 MORGANTON, NC

MORGANTON SOUTH QUADRANGLE
 BURKE CO.-NORTH CAROLINA, 1956



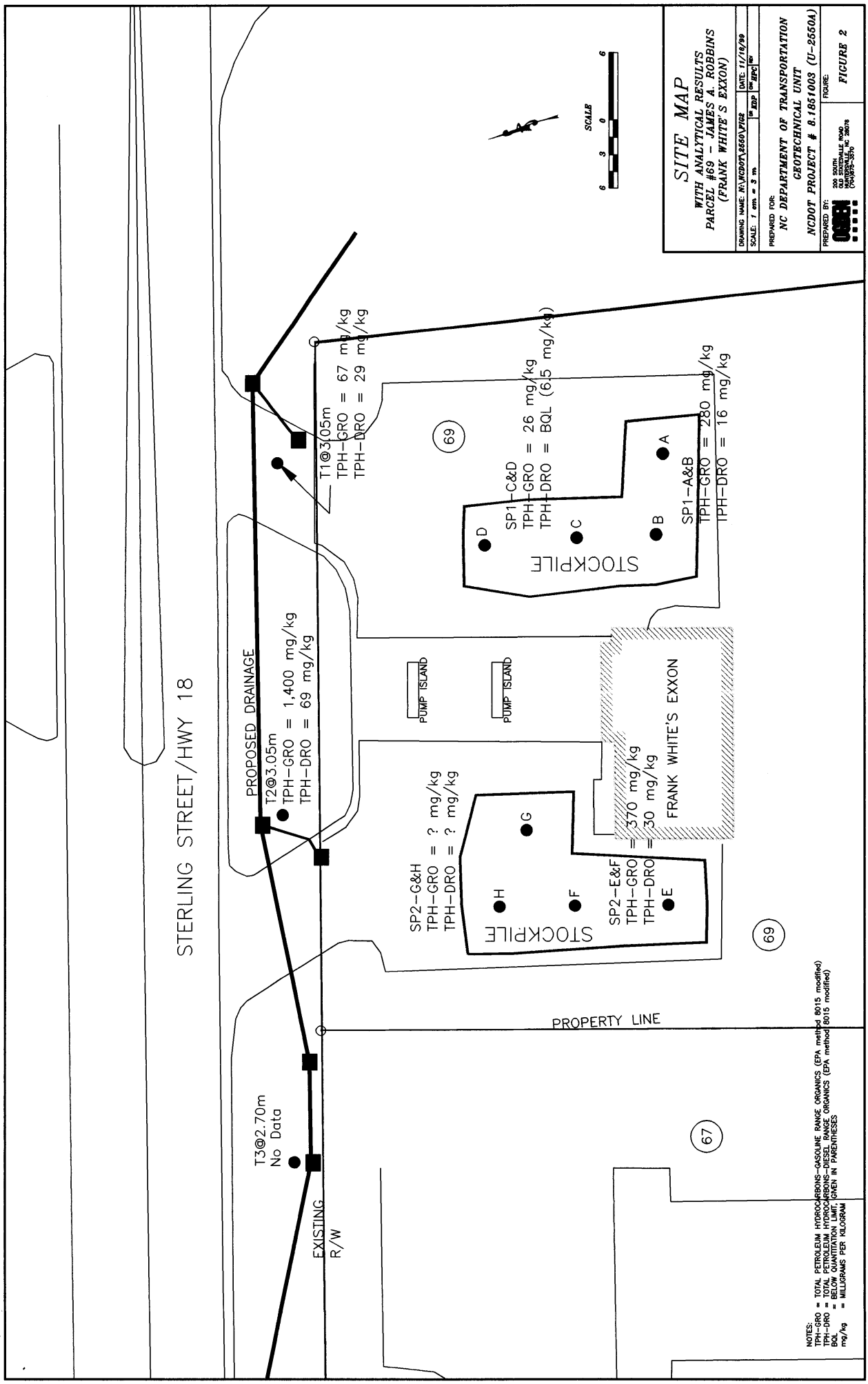
DRAWING NAME: H:\NCDOT\2550\FIG1 DATE: 11/16/99
 SCALE: 1 INCH = 300 METERS OR EDP OR HPC

PREPARED FOR:
 NC DEPARTMENT OF TRANSPORTATION
 GEOTECHNICAL UNIT
 NCDOT PROJECT # 8.1851003 (U-2550A)

PREPARED BY:

 205 SOUTH STATESVILLE ROAD
 STATESVILLE, NC 28678
 (704)878-3570

FIGURE 1



SITE MAP
 WITH ANALYTICAL RESULTS
 PARCEL #69 - JAMES A. ROBBINS
 (FRANK WHITE'S EXXON)

DRAWING NAME: NCDOT\26610\26610.P102 DATE: 11/16/99
 SCALE: 1 cm = 3 m IN: 1/8" = 3' IN: 1/4" = 6'

PREPARED FOR:
 NC DEPARTMENT OF TRANSPORTATION
 GEOTECHNICAL UNIT

NCDOT PROJECT # 8.1851003 (U-2660A)
 PREPARED BY:
 G&S CONSULTANTS
 200 SOUTH WILKIE ROAD
 CHARLOTTE, NC 28209

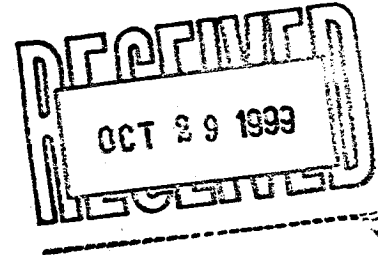
FIGURE: FIGURE 2

NOTES:
 TPH-GRO = TOTAL PETROLEUM HYDROCARBONS-GASOLINE RANGE ORGANICS (EPA method 8015 modified)
 TPH-DRO = TOTAL PETROLEUM HYDROCARBONS-DIESEL RANGE ORGANICS (EPA method 8015 modified)
 BQL = BELOW QUANTITATION LIMIT, GIVEN IN PARENTHESES
 mg/kg = MICROGRAMS PER KILOGRAM

APPENDIX A

**COMPLETE ANALYTICAL RESULTS/CHAIN OF
CUSTODY**

October 28, 1999



Ms. Helen Corley
Ogden Environmental
PO Box 3142
Huntersville, NC 28070

RE: Pace Project Number: 929383
Client Project ID: 8.1851003(U-2550A)/Morganton

Dear Ms. Corley:

Enclosed are the results of analyses for sample(s) received by the laboratory on October 15, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

for Felicia Grogan
Project Manager

Enclosures

<u>Laboratory Certification IDs</u>	
NC Wastewater	12
NC Drinking Water	37706
SC	99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

<u>Laboratory Certification IDs</u>	
KY Drinking Water	90090
TN UST List	
VA Drinking Water	213

DATE: 10/28/99
PAGE: 1

Ogden Environmental
PO Box 3142
Huntersville, NC 28070

Pace Project Number: 929383
Client Project ID: 8.1851003(U-2550A)/Morganton

Attn: Ms. Helen Corley
Phone: (704)875-3570

Solid results are reported on a dry weight basis

Pace Sample No: 93384501 Date Collected: 10/12/99 Matrix: Soil
Client Sample ID: T1@10" Date Received: 10/15/99

Parameters	Results	Units	PRL	App. DF	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	---------	----------	---------	------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture				Prep Method:			
Percent Moisture	16.9	%		0.83	10/20/99	TYM		

GC Volatiles

GAS, Soil	Method: EPA 8015 Modified				Prep Method: EPA 8015 Modified			
Gasoline	67	mg/kg	7.2	1.00	10/26/99	SRR		
4-Bromofluorobenzene (S)	90	%		0.83	10/26/99	SRR	460-00-4	

GC Semivolatiles

TPH in Soil by 8015 Modified	Method: EPA 8015 Modified				Prep Method: EPA 3550			
Diesel Fuel	29	mg/kg	6	1.00	10/23/99	SRR	11-84-7	
n-Pentacosane (S)	114	%		0.83	10/23/99	SRR	629-99-2	
Date Extracted					10/22/99			

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

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KY Drinking Water 90090
TN UST List
VA Drinking Water 213

DATE: 10/28/99
 PAGE: 2

Pace Project Number: 929383
 Client Project ID: 8.1851003(U-2550A)/Morganton

Pace Sample No: 93384519 Date Collected: 10/15/99 Matrix: Soil
 Client Sample ID: T2@10" Date Received: 10/15/99

Parameters	Results	Units	PRL	App. DF	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	---------	----------	---------	------	-----------

Wet Chemistry

Percent Moisture		Method: % Moisture			Prep Method:			
Percent Moisture	18.4	%		0.82	10/20/99	TYM		

GC Volatiles

GAS, Soil		Method: EPA 8015 Modified			Prep Method: EPA 8015 Modified			
Gasoline	1400	mg/kg	74	10.0	10/26/99	SRR		
4-Bromofluorobenzene (S)	0	%		0.82	10/26/99	SRR	460-00-4	1

GC Semivolatiles

TPH in Soil by 8015 Modified		Method: EPA 8015 Modified			Prep Method: EPA 3550			
Diesel Fuel	69	mg/kg	6.1	1.00	10/23/99	SRR	11-84-7	
n-Pentacosane (S)	111	%		0.82	10/23/99	SRR	629-99-2	
Date Extracted					10/22/99			

Laboratory Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

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Laboratory Certification IDs
 KY Drinking Water 90090
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DATE: 10/28/99

PAGE: 3

Pace Project Number: 929383

Client Project ID: 8.1851003(U-2550A)/Morganton

Pace Sample No: 93384527 Date Collected: 10/15/99 Matrix: Soil
Client Sample ID: COMPOSITE SP1 A&B Date Received: 10/15/99

Parameters	Results	Units	PRL	App. DF	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	---------	----------	---------	------	-----------

Wet Chemistry

Percent Moisture		Method: % Moisture			Prep Method:			
Percent Moisture	22.4	%		0.78	10/20/99	TYM		

GC Volatiles

GAS, Soil		Method: EPA 8015 Modified			Prep Method: EPA 8015 Modified			
Gasoline	280	mg/kg	77	10.0	10/28/99	SRR		
4-Bromofluorobenzene (S)	88	%		0.78	10/28/99	SRR	460-00-4	

GC Semivolatiles

TPH in Soil by 8015 Modified		Method: EPA 8015 Modified			Prep Method: EPA 3550			
Diesel Fuel	16	mg/kg	6.4	1.00	10/23/99	SRR	11-84-7	
n-Pentacosane (S)	81	%		0.78	10/23/99	SRR	629-99-2	
Date Extracted					10/22/99			

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

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Laboratory Certification IDs

KY Drinking Water 90090
TN UST List
VA Drinking Water 213

DATE: 10/28/99
 PAGE: 4

Pace Project Number: 929383
 Client Project ID: 8.1851003(U-2550A)/Morganton

Pace Sample No: 93384535 Date Collected: 10/15/99 Matrix: Soil
 Client Sample ID: COMPOSITE SP1 C&D Date Received: 10/15/99

Parameters	Results	Units	PRL	App. DF	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	---------	----------	---------	------	-----------

Wet Chemistry

Percent Moisture		Method: % Moisture				Prep Method:		
Percent Moisture	22.7	%		0.77		10/20/99 TYM		

GC Volatiles

GAS, Soil		Method: EPA 8015 Modified				Prep Method: EPA 8015 Modified		
Gasoline	26	mg/kg	7.8	1.00		10/28/99 SRR		
4-Bromofluorobenzene (S)	96	%		0.77		10/28/99 SRR	460-00-4	

GC Semivolatiles

TPH in Soil by 8015 Modified		Method: EPA 8015 Modified				Prep Method: EPA 3550		
Diesel Fuel	ND	mg/kg	6.5	1.00		10/23/99 SRR	11-84-7	
n-Pentacosane (S)	97	%		0.77		10/23/99 SRR	629-99-2	
Date Extracted						10/22/99		

Laboratory Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

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Laboratory Certification IDs
 KY Drinking Water 90090
 TN UST List
 VA Drinking Water 213

DATE: 10/28/99
PAGE: 5

Pace Project Number: 929383
Client Project ID: 8.1851003(U-2550A)/Morganton

Pace Sample No: 93384543 Date Collected: 10/15/99 Matrix: Soil
Client Sample ID: COMPOSITE SP2 E&F Date Received: 10/15/99

Parameters	Results	Units	PRL	App. DF	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	---------	----------	---------	------	-----------

Wet Chemistry

Percent Moisture		Method: % Moisture			Prep Method:			
Percent Moisture	17.4	%		0.83	10/20/99	TYM		

GC Volatiles

GAS, Soil		Method: EPA 8015 Modified			Prep Method: EPA 8015 Modified			
Gasoline	370	mg/kg	73	10.0	10/28/99	SRR		
4-Bromofluorobenzene (S)	74	%		0.83	10/28/99	SRR	460-00-4	

GC Semivolatiles

TPH in Soil by 8015 Modified		Method: EPA 8015 Modified			Prep Method: EPA 3550			
Diesel Fuel	30	mg/kg	6.1	1.00	10/23/99	SRR	11-84-7	
n-Pentacosane (S)	107	%		0.83	10/23/99	SRR	629-99-2	
Date Extracted					10/22/99			

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

PARAMETER FOOTNOTES

- ND Not Detected
- NC Not Calculable
- PRL Pace Reporting Limit
- (S) Surrogate
- App. DF Applied Dilution Factor
- [1] Spike and/or surrogate recoveries could not be calculated due to sample dilution.

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

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Laboratory Certification IDs

KY Drinking Water 90090
TN UST List
VA Drinking Water 213

QUALITY CONTROL DATA

DATE: 10/28/99
PAGE: 7

Ogden Environmental
PO Box 3142
Huntersville, NC 28070

Pace Project Number: 929383
Client Project ID: 8.1851003(U-2550A)/Morganton

Attn: Ms. Helen Corley
Phone: (704)875-3570

QC Batch ID: 18457
Analysis Method: % Moisture
Associated Pace Samples:

QC Batch Method:
Analysis Description: Percent Moisture
93384501 93384519 93384527 93384535 93384543

SAMPLE DUPLICATE: 92677145

Parameter	Units	93384501	Dup. Result	RPD	Footnotes
Percent Moisture	%	16.90	17.80	0	

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
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REPORT OF LABORATORY ANALYSIS

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

QUALITY CONTROL DATA

DATE: 10/28/99
PAGE: 8

Ogden Environmental
PO Box 3142
Huntersville, NC 28070

Pace Project Number: 929383
Client Project ID: 8.1851003(U-2550A)/Morganton

Attn: Ms. Helen Corley
Phone: (704)875-3570

QC Batch ID: 18571 QC Batch Method: EPA 3550
Analysis Method: EPA 8015 Modified Analysis Description: TPH in Soil by 8015 Modified
Associated Pace Samples: 93384501 93384519 93384527 93384535 93384543

METHOD BLANK: 92682186
Associated Pace Samples:

93384501 93384519 93384527 93384535 93384543

Parameter	Units	Method Blank Result	PRL	Footnotes
Diesel Fuel	mg/kg	ND	5	
n-Pentacosane (S)	%	121		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 92682194 92682202

Parameter	Units	92669803	Spike Conc.	Matrix Spike Result	Spike % Rec	Matrix Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
Diesel Fuel	mg/kg	11.24	186.7	175.6	88.0	163.9	81.7	7	
n-Pentacosane (S)					116		110		

LABORATORY CONTROL SAMPLE: 92682210

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Diesel Fuel	mg/kg	166.7	142.6	85.5	
n-Pentacosane (S)				116	

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

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Laboratory Certification IDs
KY Drinking Water 90090
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VA Drinking Water 213

QUALITY CONTROL DATA

DATE: 10/28/99
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Ogden Environmental
 PO Box 3142
 Huntersville, NC 28070

Pace Project Number: 929383
 Client Project ID: 8.1851003(U-2550A)/Morganton

Attn: Ms. Helen Corley
 Phone: (704)875-3570

QC Batch ID: 18695 QC Batch Method: EPA 8015 Modified
 Analysis Method: EPA 8015 Modified Analysis Description: GAS, Soil
 Associated Pace Samples: 93384501 93384519

METHOD BLANK: 92687664
 Associated Pace Samples:

Parameter	Units	93384501	93384519	PRL	Footnotes
			Method Blank Result		
Gasoline	mg/kg		ND	6	
4-Bromofluorobenzene (S)	%		107		

LABORATORY CONTROL SAMPLE: 92687672

Parameter	Units	Spike	LCS	Spike	Footnotes
		Conc.	Result	% Rec	
Gasoline	mg/kg	50	42.10	84.2	
4-Bromofluorobenzene (S)				141	

Laboratory Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

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 VA Drinking Water 213

QUALITY CONTROL DATA

DATE: 10/28/99
PAGE: 10

Ogden Environmental
PO Box 3142
Huntersville, NC 28070

Pace Project Number: 929383
Client Project ID: 8.1851003(U-2550A)/Morganton

Attn: Ms. Helen Corley
Phone: (704)875-3570

QC Batch ID: 18750 QC Batch Method: EPA 8015 Modified
Analysis Method: EPA 8015 Modified Analysis Description: GAS, Soil
Associated Pace Samples: 93384527 93384535 93384543

METHOD BLANK: 92689868
Associated Pace Samples:

Parameter	Units	93384527	93384535	93384543	Footnotes
			Method Blank	PRL	
Gasoline	mg/kg		ND	6	
4-Bromofluorobenzene (S)	%		114		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 92689884 92689892

Parameter	Units	92689884		92689892		Matrix		Spike		Footnotes
		92681709	Conc.	Spike Result	Spike % Rec	Sp. Dup. Result	Spike % Rec	RPD		
Gasoline	mg/kg	1.084	65.72	50.24	74.8	57.99	86.6	15		
4-Bromofluorobenzene (S)					125		126			

LABORATORY CONTROL SAMPLE: 92689876

Parameter	Units	92689876		Spike		Footnotes
		Spike Conc.	LCS Result	% Rec	Result	
Gasoline	mg/kg	50	46.02	92.0		
4-Bromofluorobenzene (S)				148		

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

ND Not Detected
NC Not Calculable
PRL Pace Reporting Limit
RPD Relative Percent Difference
(S) Surrogate

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

494413

To Be Completed by Pace Analytical and Client **Section C**

Page: 1 of 2

Required Client Information: **Section B**

Required Client Information: **Section A**

Client Information (Check quote/contract):
 Requested Date: Standard TAT:
 * Under 14 day turnaround subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
 Turn Around Time (TAT) in calendar days.

Project Manager:
 Project #:
 Profile #:
 Requested Analysis:

Report To: Helen Corley
 Invoice To: Drill Medford
 P.O. 979207
 Project Name: Morganton
 Project Number: 8.1851003 (U-2550A)

Valid Matrix Codes
 MATRIX CODE
 WATER WT SL OL WP AR TS OT
 SOIL OIL WIPE AIR TISSUE OTHER

ITEM #	SAMPLE ID	One character per box (A-Z, 0-9 / -)	Sample IDs MUST BE UNIQUE	DATE COLLECTED mm / dd / yy	TIME COLLECTED mm : hh a/p	Containers #	Preservatives						Remarks / Lab ID	
							Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₈		
1	T1@10'			10/12/99	8:00	2	X						93384501	
2	T2@10'			10/15/99	9:00	2	X						93384519	
3	SP1A@2'			"	14:15	1	X						Combine all SP1A's and SP1B's into composite Sample.	
4	SP1A@4'			"	14:15	1	X							
5	SP1A@6'			"	14:15	1	X							
6	SP1B@2'			"	14:25	1	X							
7	SP1B@4'			"	14:25	1	X							
8	SP1B@6'			"	14:25	1	X							
9				"										
10				"										
11				"										
12				"										

Sample Condition: AP
 Temp in °C: Y N
 Received on ICE: Y N
 Sealed Cooler: Y N
 Samples Intact: Y N

Additional Comments:

Relinquished By / Company: J. Derek Nixey / OFFES
 Date: 10/15/99
 Accepted By / Company: J. Derek Nixey / OFFES
 Date: 10/15/99

SAMPLER NAME AND SIGNATURE:
 PRINT Name of SAMPLER: J. Derek Nixey
 SIGNATURE of SAMPLER: J. Derek Nixey
 DATE Signed: (MM / DD / YY) 10/15/99

Form COC01.XLS 08/98

Section A

Company: Ozden Environmental
 Address: 200 South Old Statesville Rd.
Huntersville, NC 28078

Section B

Report to: Helen Corley
 Invoice to: Bill Medford
 P.O. # 979207
 Project Name: Morganston
 Project Number: 81851003 (U-2550A)

Section C

Quote Reference: 929383

Project Manager: 929383

Project #: 929383

Profile #:

To Be Completed by Pace Analytical and Client

Client Information (Check quote/contract):
 Requested Due Date: Standard
 * Under 14 day turnaround subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
 Turn Around Time (TAT) in calendar days.

Section D

Phone: 704-875-3570 Fax: 875-8718

Required Client Information:

SAMPLE ID

One character per box.
 (A-Z, 0-9 / -)

Sample IDs MUST BE UNIQUE

Preservatives

Unpreserved	
H ₂ O ₂	
HNO ₃	
HCl	
NaOH	
Na ₂ O ₂	

Requested Analysis:

Remarks / Lab ID

#	ITEM	MATRIX	MATRIX CODE	DATE COLLECTED	TIME COLLECTED	# Containers	Preservatives						Remarks / Lab ID		
							Unpreserved	H ₂ O ₂	HNO ₃	HCl	NaOH	Na ₂ O ₂			
1	SP1C@2	SL	SL	10/15/97	14:35	1	X						X	Combine all	
2	SP1C@4				14:35	1	X						X	SP1 C's and	93384535
3	SP1C@6				14:35	1	X						X	SP1 D's into	
4	SP1D@2				14:45	1	X						X	one composite	
5	SP1D@4				14:45	1	X						X	Sample	
6	SP1D@6				14:45	1	X						X		
7	SP2E@2				14:55	1	X						X	Combine all	
8	SP2E@4				14:55	1	X						X	SP2 E's and	
9	SP2E@6				14:55	1	X						X	SP2 F's into	93384543
10	SP2F@2				15:05	1	X						X	one composite	
11	SP2F@4				15:05	1	X						X	Sample	
12	SP2F@6				15:05	1	X						X		

Section E

Temp in °C: 10

Received on ICE: Y/N

Sealed Cooler: Y/N

Samples Intact: Y/N

Additional Comments:

Sample Notes: J. Park / Jeff / OEEs / 10/15/97

Item No. Relinquished By / Company: J. Park / OEEs / 10/15/97

Date: 10/15/97

Accepted By / Company: J. Park / OEEs / 10/15/97

Date: 10/15/97

Time: 10:15:00

SAMPLER NAME AND SIGNATURE: J. Park

PRINT Name of SAMPLER: J. Park

SIGNATURE of SAMPLER: J. Park

DATE Signed: (MM / DD / YY) 10/15/97

Pace Analytical Services, Inc. Form COC01.XLS 08/96

Pace Analytical

Pace Analytical Services, Inc.
9800 Kinsey Avenue, Suite 100
Huntersville, NC 28078

Tel: 704-875-9092
Fax: 704-875-9091

November 19, 1999

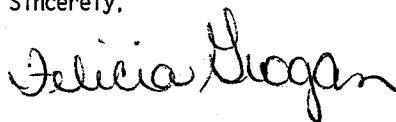
Ms. Helen Corley
Ogden Environmental
PO Box 3142
Huntersville, NC 28070

RE: Pace Project Number: 9210211
Client Project ID: Morganton-8.1851003(U-2550A)

Dear Ms. Corley:

Enclosed are the results of analyses for sample(s) received by the laboratory on November 17, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Felicia Grogan
Project Manager

Enclosures

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

Pace Analytical

Pace Analytical Services, Inc.
9800 Kinsey Avenue, Suite 100
Huntersville, NC 28078

Tel: 704-875-9092
Fax: 704-875-9091

DATE: 11/19/99
PAGE: 1

Ogden Environmental
PO Box 3142
Huntersville, NC 28070

Pace Project Number: 9210211
Client Project ID: Morganton-8.1851003(U-2550A)

Attn: Ms. Helen Corley
Phone: (704)875-3570

Solid results are reported on a dry weight basis

Pace Sample No: 92725449 Date Collected: 11/17/99 Matrix: Soil
Client Sample ID: STOCKPILE 2B MORGANTON Date Received: 11/17/99

Parameters	Results	Units	PRL	App. DF	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	---------	----------	---------	------	-----------

Wet Chemistry

Percent Moisture		Method: % Moisture				Prep Method:		
Percent Moisture	21.8	%		0.78		11/19/99 AST		

GC Volatiles

GAS, Soil		Method: EPA 8015 Modified				Prep Method: EPA 8015 Modified		
Gasoline	85	mg/kg	7.7	1.00		11/18/99 SRR		
4-Bromofluorobenzene (S)	113	%		0.78		11/18/99 SRR	460-00-4	

GC Semivolatiles

TPH in Soil by 8015 Modified		Method: EPA 8015 Modified				Prep Method: EPA 3550		
Diesel Fuel	18	mg/kg	6.4	1.00		11/19/99 SRR	11-84-7	
n-Pentacosane (S)	158	%		0.78		11/19/99 SRR	629-99-2	
Date Extracted						11/18/99		

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

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TN UST List
VA Drinking Water 213

PARAMETER FOOTNOTES

ND Not Detected
NC Not Calculable
PRL Pace Reporting Limit
(S) Surrogate
App. DF Applied Dilution Factor

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

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Laboratory Certification IDs

KY Drinking Water 90090
TN UST List
VA Drinking Water 213

QUALITY CONTROL DATA

DATE: 11/19/99
PAGE: 3

gden Environmental
PO Box 3142
Huntersville, NC 28070

Pace Project Number: 9210211
Client Project ID: Morganton-8.1851003(U-2550A)

Attn: Ms. Helen Corley
Phone: (704)875-3570

QC Batch ID: 19285
Analysis Method: EPA 8015 Modified
Associated Pace Samples: 92725449

QC Batch Method: EPA 3550
Analysis Description: TPH in Soil by 8015 Modified

METHOD BLANK: 92726371
Associated Pace Samples:

92725449

Parameter	Units	Method Blank Result	PRL	Footnotes
Diesel Fuel	mg/kg	ND	5	
n-Pentacosane (S)	%	127		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 92712330 92712348

Parameter	Units	92694322	Spike Conc.	Matrix Spike Result	Spike % Rec	Matrix Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
Diesel Fuel	mg/kg	2.840	200.5	237.8	117	176.3	86.5	30	
n-Pentacosane (S)					154		96		

LABORATORY CONTROL SAMPLE: 92711928

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Diesel Fuel	mg/kg	166.7	209.3	126	
n-Pentacosane (S)				137	

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

Pace Analytical

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078

Tel: 704-875-9092
Fax: 704-875-9091

QUALITY CONTROL DATA

DATE: 11/19/99
PAGE: 4

Ogden Environmental
PO Box 3142
Huntersville, NC 28070

Pace Project Number: 9210211
Client Project ID: Morganton-8.1851003(U-2550A)

Attn: Ms. Helen Corley
Phone: (704)875-3570

QC Batch ID: 19736
Analysis Method: % Moisture
Associated Pace Samples: 92725449

QC Batch Method:
Analysis Description: Percent Moisture

SAMPLE DUPLICATE: 92726231

Parameter	Units	92714419	Dup. Result	RPD	Footnotes
Percent Moisture	%	27.40	25.60	7	

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

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Laboratory Certification IDs

KY Drinking Water 90090
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VA Drinking Water 213

Pace Analytical

Pace Analytical Services, Inc.
9800 Kinsey Avenue, Suite 100
Huntersville, NC 28078

Tel: 704-875-9092
Fax: 704-875-9091

QUALITY CONTROL DATA

DATE: 11/19/99
PAGE: 5

Ogden Environmental
PO Box 3142
Huntersville, NC 28070

Pace Project Number: 9210211
Client Project ID: Morganton-8.1851003(U-2550A)

Attn: Ms. Helen Corley
Phone: (704)875-3570

QC Batch ID: 19758
Analysis Method: EPA 8015 Modified
Associated Pace Samples: 92725449

QC Batch Method: EPA 8015 Modified
Analysis Description: GAS, Soil

METHOD BLANK: 92727197
Associated Pace Samples:

92725449

Parameter	Units	Method Blank Result	PRL	Footnotes
Gasoline	mg/kg	ND	6	
4-Bromofluorobenzene (S)	%	105		

LABORATORY CONTROL SAMPLE: 92727205

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Gasoline	mg/kg	50	50.01	100	
4-Bromofluorobenzene (S)				144	

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

- ND Not Detected
- NC Not Calculable
- PRL Pace Reporting Limit
- RPD Relative Percent Difference
- (S) Surrogate

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

484332

Section C

To Be Completed by Pace Analytical and Client

Page: 1 of 1

Section B

Required Client Information:

Report To: *Helena Corley, Oregon*
 Invoice To: *Ballmelford, Inc DOT*
 P.O. *979207*
 Project Name: *PROJECTED*
 Project Number: *2-185-1003 (11-25501)*

Company: *Oaden Environmental*
 Address: *40 Box 314a*
Wheelerville, OR
 28070
 Phone: *704-875-3570* Fax: *704-875-8718*

Quote Reference: *484332*
 Project Manager: *Helena Corley*
 Project #: *9210211*
 Profile #:
 Requested Analysis:

Section D Required Client Information:

Valid Matrix Codes
 MATRIX WATER WT
 SOIL SL OIL
 WIPE WP
 AIR AR
 TISSUE TS
 OTHER OT

Requested Due Date: *11-19-99* (TAT)
 * Under 14 day turnaround subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
 Turn Around Time (TAT) in calendar days.

#	ITEM	SAMPLE ID	Matrix Code	DATE COLLECTED	TIME COLLECTED	# Containers	Preservatives					Remarks / Lab ID	
							Unpreserved	H ₂ O ₄	HNO ₃	HCl	NaOH		Na ₂ S ₂ O ₅
1	5017607	1	SL	11/17/99	10:00	1	X						92725449
2	5026041	1		10:05		1	X						Sample 20A
3	5026041	1		10:10		1	X						Sample Composite
4	5024122	1		10:15		1	X						Sample Composite
5	5024122	1		10:20		1	X						Sample 2B
6	5024122	1		10:25		1	X						Sample Composite 2B
7													
8													
9													
10													
11													
12													

Sample Condition	Sample Notes	Item No.	Relinquished By / Company	Date	Time	Accepted By / Company	Date	Time
Temp in °C:								
Received on ICE:	(Y) / (N)							
Sealed Cooler:	(Y) / (N)							
Samples Intact:	(Y) / (N)							
Additional Comments:								

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: *S. Decker Niche*
 SIGNATURE of SAMPLER: *[Signature]*
 DATE Signed: (MM/DD/YY) *11/17/99*

APPENDIX B

CERTIFICATE OF WASTEWATER DISPOSAL



SOIL SOLUTIONS

CERTIFICATE OF DISPOSAL

Soil Solutions, Inc. does hereby certify that 1644 gallons of non-hazardous contaminated wastewater were transported for disposal on 10/13/1999 from:

Generator: NCDOT

Originating at: Frank White Exxon Highway 18 North Morganton, NC

SSI Waste ID#: SF109924

This non-hazardous material has been disposed of by Soil Solutions, Inc. in a manner approved by the North Carolina Department of Environment and Natural Resources.

Signature

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

