LAW ENVIRONMENTAL, INC.

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July 18, 1991

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Environmental Improvement Division
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Santa Fe, New Mexico 87503

Subject: Consent Decree Requirement
Civil Action No. 87-1073-jb
General Electric, Albuquerque, N.M.

On behalf of our client, General Electric Company, we are submitting the attached Quarterly Quality Assurance Report. The Supplemental Soil Assessment was the only sampling activity performed at the GE facility during this quarter and it is the data collected during this sampling activity that has been evaluated in the attached report.

Sincerely,

Alison Levinson, P.G.
Senior Geologist

A. David Alcott, P.E.
Principal Engineer

cc: Office of Regional Counsel, USEPA, 1445 Ross Ave., Dallas, Texas 75202-2733
PRC Environmental Management, Inc., American Financial Center, Bldg. 4, Suite 225, 2400 Louisiana Blvd. NE, Albuquerque, NM 87110
JT Harrsen, GE, Albany
JM Rhodes, GE, Schdy.
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B. York, GE, Schdy.

LAW ENVIRONMENTAL

QUARTERLY QUALITY ASSURANCE REPORT

SUPPLEMENTAL SOIL ASSESSMENT DATA

RCRA FACILITY INVESTIGATION
GENERAL ELECTRIC APPARATUS SERVICE SHOP
ALBUQUERQUE, NEW MEXICO

JULY 1991

TABLE OF CONTENTS

1.0 INTRODUCTION

The following document presents the results of the evaluation of the data collected for the Supplemental Soil Assessment. The objective of this assessment was to further define the horizontal and vertical extent of migration of constituents associated with prior releases to Drywell No. 2. Both field and laboratory activities are discussed.

2.0 FIELD QUALITY CONTROL/QUALITY ASSURANCE EVALUATION

An evaluation of field quality control (QC) activities was made to assist in determining the level of quality of the data collected as part of the supplemental soil assessment. The following summarizes the activities that were to take place followed by an evaluation of actual conformance with these activities.

2.1 Proposed Field Quality Control/Quality Assurance Activities

The sample collection procedures for this project are described in the RFI Workplan dated September, 1989. The sample locations and number of samples are described in the Workplan for Supplemental Soil Assessment dated January, 1991 (revised February 1991). Quality Control (QC) and Quality Assurance (QA) samples, as required by EPA protocols and by the RFI Guidance document scope of services (May, 1989), were also collected. QA samples were collected by PRC Environmental Management, Inc. for the US EPA Region VI.

Soil samples were to be collected and containerized in the order of the volatilization sensitivity of the tested parameters. Soil samples were to be collected in 2 ounce glass jars (volatile organics) and in 8 ounce glass jars (semi-volatile organics, polychlorinated biphenols and total recoverable petroleum hydrocarbons). The soil samples, once containerized, were to be cooled to 4°C for shipment to the laboratory. All soil sampling equipment was to be decontaminated as described in the Workplan for Supplemental Soil Assessment dated January 1991 (revised February 1991).

2.1.1 Quality Control Samples

QC samples were to be collected along with the field samples to assess the accuracy of sampling. The QC samples to be collected were field duplicates, equipment blanks, and trip blanks. These samples were to be collected in the same type sample container and were to be analyzed concurrently with the field samples. Field duplicates and equipment blanks were to be collected at a frequency of one for every 20 samples collected or one for each day of sampling, whichever was more frequent.

Field duplicates were to be collected to assess sampling precision. They were to consist of replicate grab samples collected in conjunction with the field samples. The equipment blanks were intended to measure the degree of contamination, if any, contributed by the sampling tools. They were to consist of blank soil or deionized water that had been passed through a sampling device before collection of a field sample. Each equipment blank was

collected for all analytical parameters in such a manner that all sample containers contained a representative sample of the soil or water passed through the sampling tool.

Trip blanks were necessary to assess if any cross-contamination occurred during shipment to the laboratory of the sample aliquots collected for volatile organic compounds. They were to consist of purged, deionized water sealed by the laboratory in 40 ml vials. The trip blanks were to be placed in the sample shipper with the field samples to be analyzed for volatile organic compounds.

2.1.2 Quality Assurance Samples

Quality Assurance (QA) samples were to be collected along with the field samples to assess the accuracy of sampling and analysis. The QA samples are field splits and were collected by PRC Environmental Management, Inc. for US EPA Region VI.

2.2 Evaluation of Field Quality Control/Quality Assurance Activities

The field activities were performed without deviation from the procedures specified in either the RFI Workplan or the Workplan for Supplemental Soil Assessment, as appropriate. Field duplicate samples and equipment blanks were collected for each day of sampling since less than 20 samples were collected a day.

There were minor deficiencies noted on the shipment of samples from this supplemental sampling episode. These deficiencies included the absence of a sample date and airbill

numbers on the chain-of-custody forms, no sample tags or SMD forms. Sample tags and SMD forms are designed for EPA use and do not apply to these samples. Despite the absence of airbill numbers, all samples collected were received intact at the laboratory and within 24 hours of shipment. The absence of a sample date on a chain-of-custody form did not affect the sample integrity as the sample date was clearly marked on the sample bottles.

3.0 DATA VALIDATION RESULTS

QA objectives for precision, accuracy and completeness have been established for each parameter in the field and in the laboratory and are defined by the methods in EPA SW-846. The supplemental soil assessment data were reviewed and validated. Validation determined that the quality of the data is sufficient for its intended use.

Validation procedures for the SW-846 Methods used in the G.E. Service Shop consist of examination of the following parameters:

- Chain-of-Custody Forms: sample data, signature and data relinquished and signature and date received.
- Hold Times: proper analysis times.
- Blanks: assess if sample contamination may have occurred during the trip or from the laboratory procedures.
- Field Duplicate Samples: indicate reproducibility (precision) in the sampling and analysis of the samples.
- Surrogates: indicate accuracy of analysis.
- Matrix Spike/Matrix Spike Duplicates: indicate accuracy and precision of analysis.

- Form Is: examined for reasonableness of detected components and quantitation limits.

Any deviations from the appropriate methods are noted and any corrective action (flagging of the data as estimated or rejected) is based on the Data Validation Functional Guidelines for Organic and Inorganic Analysis (EPA, 1988).

3.1 Blanks

Appropriate field and trip blanks were analyzed to verify lack of sample contamination from containers, procedures or ambient conditions at the site which may have resulted in sample contamination. Equipment blanks and trip blanks from these sampling events indicate no external contamination source. In cases where method blanks have low level contamination, associated data has been corrected for blank contamination. These Form 1s are presented as Attachment A.

3.2 Hold Times

Compliance with hold times was observed for most of the sample analyses. The exceptions are noted with explanations. For analyses with missed hold times, the data, including "Not Detected," should be flagged with a "J" (estimated). The associated result may underestimate the true value. Flagged Form 1s are presented as Attachment B.

- 7B450, 7B460 — GC-Volatiles - Volatile analysis for these samples was requested past the fourteen day hold time. (This request for analysis was beyond the scope of the Workplan).

- 7B610RE — GC-Volatiles - Sample 7B610 was rerun due to an out-of-control surrogate. The reanalysis was run past hold time.

- 7B56, 7B640 — TRPH - TRPH analysis was rerun past hold time. The bench sheets corresponding to the initial samples could not be located; the samples, therefore, were rerun to maintain proper documentation.

3.3 Field Duplicate Samples

Sample duplicates were collected at a minimum of one in every ten samples per matrix type. Duplicate samples are analyzed to verify sampling and analytical reproducibility and precision.

Duplicate data for the GE Service Shop indicate that the required level of reproducibility of sampling and analysis in the majority of sample delivery groups was attained (Table 1). Sample duplicates 7B120/REP7BH and 7BA45/RE7BAA, however, have markedly different results. Review of the data indicates that the analyses of these two sets of duplicates are valid. These samples were also reextracted and reanalyzed with similar results to the original analyses. The laboratory reports that the samples do not appear to be true physical replicates (see Attachment B) and that this apparent sample difference, due to the soil matrix, may explain the disparity in analytical results.

3.4 Surrogates and Matrix Spikes

Precision and accuracy tests for SW-846 analysis are performed by the addition of surrogate spike compounds in every sample prior to extraction and analysis, and with matrix spike compounds which are added to one in twenty samples prior to extraction and/or analysis.

Surrogate recovery is the primary indicator of accuracy in the laboratory analyses for the GE Service Shop Site. Although the majority of analyses are within control, some analyses indicate a problem with accuracy from out-of-control surrogates. With the exception of 7B610, no reanalyses were performed to confirm the out-of-control situation as a matrix problem. These exceptions do not significantly affect the overall validity of the analyses, but they are a nonconformance with the analytical methods. Therefore, the affected data will be flagged according to Laboratory Data Validation Functional Guidelines for Organic and Inorganic Analysis (EPA, 1988). For cases in which surrogates were low, fraction specific results (both detects and nondetects) should be flagged with a "J" (estimated); the associated results may underestimate the true value. In the case of high surrogate recovery, all fraction specific detects should be flagged with a "J" (estimated); the associated results may overestimate the true value. Flagged Form 1s are presented as Attachment A.

GC Volatiles	EQBLK (SDG: 7B310)	Halogenated hydrocarbons - high
	7B610	Halogenated hydrocarbons - high
	7B610RE	Halogenated hydrocarbons - high
Semivolatiles	SBLK1 (SDG:7B310)	1 BN - low
	EQBLK (SDG:7B310)	3 Acids - low
	7B540	1 Acid - low
	7B640	1 BN, 1 Acid - low

Pesticides	7B415	high: chromatograms (see Attachment C) indicate matrix interference.

Matrix spikes/duplicates are a secondary measure of accuracy and precision. The MS/MSD data for GE Service Shop validate the accuracy and precision levels indicated in the surrogate and duplicate analyses. In those few cases were the spikes were out of control; surrogates from these fractions were affected in a similar manner. This does not affect the overall validity of the data; it reinforces the flags placed due to poor surrogate recovery.

TABLE 1
DUPLICATE SAMPLES
G. E. SERVICE SHOP

SAMPLE 7B120/REP7BA		
FRACTION	7B120	REP7BA
GC Volatiles	not run	not run
GC/MS Volatiles	all ND	Acetone 180 ug/Kg
Semi-Volatile	all ND	all ND
PCB	all ND	Aroclor-1254 590 ug/Kg
TRPH	ND	22 mg/Kg

SAMPLE 7BA45/RE7BAA		
FRACTION	7BA45	RE7BAA
GC Volatiles	Xylene (total) 6 ug/Kg	Benzene 0.5 ug/Kg Toluene 1 ug/Kg Xylene (total) 4 ug/Kg
GC/MS Volatiles	not run	not run
Semi-Volatiles	all ND	Phenanthrene 47 J ug/Kg
PCB	not run	not run
TRPH	53 mg/Kg	590 mg/Kg

SAMPLE 7B330/7B3A		
FRACTION	7B330	7B3A
GC Volatiles	all ND	all ND
GC/MS Volatiles	not run	not run
Semi-Volatiles	all ND	all ND
PCB	all ND	all ND
TRPH	ND	ND

SAMPLE 7B420/7B45		
FRACTION	7B420	7B45
GC Volatiles	all ND	Xylene (total) 6 ug/Kg
GC/MS Volatiles	not run	not run
Semi-Volatiles	all ND	all ND
PCB	all ND	not run
TRPH	ND	53 mg/Kg

SAMPLE 7B620/7B56		
FRACTION	7B620	7B56
GC Volatiles	all ND	all ND
GC/MS Voaltiles	not run	not run
Semi-Volatiles	all ND	all ND
PCB	Aroclor-1254 42 ug/KG	Aroclor-1254 43 ug/Kg
TRPH	ND	14 mg/Kg

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ATTACHMENT A

Flagged Form 1s

1A

GC VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EQBLK

Lab Name: LENL-Pensacola Contract: 55-4342.09

Lab Code: LENL-P Case No: 55434 SAS No.: SDG No.: REP7BA

Matrix: (soil/water) SOIL Lab Sample ID: AA08447

Sample wt/vol: 5.47 (g/mL) G 8020 Lab File ID: A136A13
8010 Lab File ID: B136A13

Methanol Extract: aliquot uL Date Received: 04/26/91

% Moisture: not dec. 0 Date Analyzed: 05/06/91

Column: DB624 Dilution Factor: 1.0

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg): UG/KG	Q
Method 8010			
75-27-4	Bromodichloromethane	0.3	U
75-25-2	Bromoform	0.6	U
74-83-9	Bromomethane	5	U
56-23-5	Carbon tetrachloride	0.9	U
75-00-3	Chloroethane	5	U
100-75-8	2-Chloroethylvinyl ether	0.9	U
67-66-3	Chloroform	2	U
74-87-3	Chloromethane	5	U
124-48-1	Dibromochloromethane	0.8	U
75-34-3	1,1-Dichloroethane	0.6	U
107-06-2	1,2-Dichloroethane	0.9	U
75-35-4	1,1-Dichloroethylene	0.8	U
156-60-5	trans-1,2-Dichloroethylene	0.6	U
78-87-5	1,2-Dichloropropane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.6	U
10061-02-6	trans-1,3-Dichloropropene	0.6	U
75-09-2	Methylene chloride	10 ~~12~~	B U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
127-18-4	Tetrachloroethene	0.9	U
71-55-6	1,1,1-Trichloroethane	0.9	U
79-00-5	1,1,2-Trichloroethane	0.8	U
79-01-6	Trichloroethene	0.6	U
75-69-4	Trichlorofluoromethane	0.8	U
75-01-4	Vinyl chloride	5	U
Method 8020			
71-43-2	Benzene	0.2	U
108-90-7	Chlorobenzene	0.3	U
95-50-1	1,2-Dichlorobenzene	0.3	U
541-73-1	1,3-Dichlorobenzene	0.3	U
106-46-7	1,4-Dichlorobenzene	0.3	U
100-41-4	Ethylbenzene	0.5	U
108-88-3	Toluene	0.9	U
1330-20-7	Xylene (total)	0.9	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EQBLK

Lab Name: LENL-P Contract: 55-4342.09

Lab Code: LENL-P Case No.: 55434 SAS No.: SDG No.: REP7BA

Matrix: (soil/water) SOIL Lab Sample ID: AA08447

Sample wt/vol: 5.047 (g/mL) G Lab File ID: 41862

Level: (low/med) LOW Date Received: 4/26/91

% Moisture: not dec. 0. Date Analyzed: 5/ 3/91

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	20 ~~16.~~	~~B~~ U
67-64-1	Acetone	100.	U
75-15-0	Carbon Disulfide	3.	U
75-35-4	1,1-Dichloroethene	3.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	3.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	100.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	3.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	3.	U
10061-01-5	cis-1,3-Dichloropropene	3.	U
79-01-6	Trichloroethene	3.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	2.	U
10061-02-6	trans-1,3-Dichloropropene	3.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	3.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	3.	U
100-41-4	Ethylbenzene	3.	U
100-42-5	Styrene	3.	U
1330-20-7	Xylene (total)	5.	U

1A

GC VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EQBLK

Lab Name: LENL-Pensacola Contract: 55-4342.09

Lab Code: LENL-P Case No: 55434 SAS No.: SDG No.: 7B310

Matrix: (soil/water) SOIL Lab Sample ID: AA08643

Sample wt/vol: 5.35 (g/mL) G 8020 Lab File ID: A140A12
8010 Lab File ID: B140A12

Methanol Extract: aliquot uL Date Received: 05/01/91

% Moisture: not dec. 0 Date Analyzed: 05/10/91

Column: DB624 Dilution Factor: 1.0

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg):UG/KG	Q
Method 8010			
75-27-4	Bromodichloromethane	0.3	U
75-25-2	Bromoform	0.6	U
74-83-9	Bromomethane	5	U
56-23-5	Carbon tetrachloride	0.9	U
75-00-3	Chloroethane	5	U
100-75-8	2-Chloroethylvinyl ether	0.9	U
67-66-3	Chloroform	2	U
74-87-3	Chloromethane	5	U
124-48-1	Dibromochloromethane	0.8	U
75-34-3	1,1-Dichloroethane	0.6	U
107-06-2	1,2-Dichloroethane	0.9	U
75-35-4	1,1-Dichloroethylene	0.8	U
156-60-5	trans-1,2-Dichloroethylene	0.6	U
78-87-5	1,2-Dichloropropane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.6	U
10061-02-6	trans-1,3-Dichloropropene	0.6	U
75-09-2	Methylene chloride	5	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
127-18-4	Tetrachloroethene	0.9	U
71-55-6	1,1,1-Trichloroethane	0.9	U
79-00-5	1,1,2-Trichloroethane	0.8	U
79-01-6	Trichloroethene	0.6	U
75-69-4	Trichlorofluoromethane	0.8	U
75-01-4	Vinyl chloride	5	U
Method 8020			
71-43-2	Benzene	0.2	U
108-90-7	Chlorobenzene	0.3	U
95-50-1	1,2-Dichlorobenzene	0.3	U
541-73-1	1,3-Dichlorobenzene	0.3	U
106-46-7	1,4-Dichlorobenzene	0.3	U
100-41-4	Ethylbenzene	0.5	U
108-88-3	Toluene	0.9	U
1330-20-7	Xylene (total)	0.9	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EQBLK

Lab Name: LENL-P Contract: 55-4342.09

Lab Code: LENL-P Case No.: 55434 SAS No.: SDG No.: 7B310

Matrix: (soil/water) SOIL Lab Sample ID: AA08643

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 61392

Level: (low/med) LOW Date Received: 5/ 1/91

% Moisture: not dec. 0. dec._____ Date Extracted: 5/ 7/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 5/16/91

GPC Cleanup: (Y/N) N pH: 7.1 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	170.	U J
111-44-4	bis(2-Chloroethyl)ether	200.	U
95-57-8	2-Chlorophenol	130.	U J
541-73-1	1,3-Dichlorobenzene	230.	U
106-46-7	1,4-Dichlorobenzene	200.	U
100-51-6	Benzyl alcohol	200.	U J
95-50-1	1,2-Dichlorobenzene	170.	U
95-48-7	2-Methylphenol	130.	U J
108-60-1	bis(2-Chloroisopropyl)ether	170.	U
106-44-5	4-Methylphenol	230.	U J
621-64-7	N-Nitroso-di-n-propylamine	200.	U
67-72-1	Hexachloroethane	230.	U
98-95-3	Nitrobenzene	330.	U
78-59-1	Isophorone	230.	U
88-75-5	2-Nitrophenol	330.	U J
105-67-9	2,4-Dimethylphenol	330.	U J
65-85-0	Benzoic acid	900.	U J
111-91-1	bis(2-Chloroethoxy)methane	200.	U
120-83-2	2,4-Dichlorophenol	200.	U J
120-82-1	1,2,4-Trichlorobenzene	230.	U
91-20-3	Naphthalene	100.	U
106-47-8	4-Chloroaniline	130.	U
87-68-3	Hexachlorobutadiene	200.	U
59-50-7	4-Chloro-3-methylphenol	230.	U J
91-57-6	2-Methylnaphthalene	130.	U
77-47-4	Hexachlorocyclopentadiene	330.	U
88-06-2	2,4,6-Trichlorophenol	270.	U J
95-95-4	2,4,5-Trichlorophenol	300.	U J
91-58-7	2-Chloronaphthalene	200.	U
88-74-4	2-Nitroaniline	170.	U
131-11-3	Dimethylphthalate	330.	U
208-96-8	Acenaphthylene	170.	U
606-20-2	2,6-Dinitrotoluene	230.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EQBLK

Lab Name: LENL-P Contract: 55-4342.09

Lab Code: LENL-P Case No.: 55434 SAS No.: SDG No.: 7B310

Matrix: (soil/water) SOIL Lab Sample ID: AA08643

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 61392

Level: (low/med) LOW Date Received: 5/ 1/91

% Moisture: not dec. 0. dec._____ Date Extracted: 5/ 7/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 5/16/91

GPC Cleanup: (Y/N) N pH: 7.1 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	430.	U
83-32-9	Acenaphthene	170.	U
51-28-5	2,4-Dinitrophenol	1400.	U J
100-02-7	4-Nitrophenol	400.	U J
132-64-9	Dibenzofuran	100.	U
121-14-2	2,4-Dinitrotoluene	230.	U
84-66-2	Diethylphthalate	330.	U
7005-72-3	4-Chlorophenyl-phenylether	200.	U
86-73-7	Fluorene	230.	U
100-01-6	4-Nitroaniline	530.	U
534-52-1	4,6-Dinitro-2-methylphenol	830.	U J
86-30-6	N-Nitrosodiphenylamine	170.	U
101-55-3	4-Bromophenyl-phenylether	200.	U
118-74-1	Hexachlorobenzene	200.	U
87-86-5	Pentachlorophenol	530.	U J
85-01-8	Phenanthrene	130.	U
120-12-7	Anthracene	170.	U
84-74-2	Di-n-butylphthalate	330.	U
206-44-0	Fluoranthene	130.	U
129-00-0	Pyrene	100.	U
85-68-7	Butylbenzylphthalate	330.	U
91-94-1	3,3'-Dichlorobenzidine	670.	U
56-55-3	Benzo(a)anthracene	100.	U
218-01-9	Chrysene	100.	U
117-81-7	bis(2-Ethylhexyl)phthalate	330.	U
117-84-0	Di-n-octylphthalate	330.	U
205-99-2	Benzo(b)fluoranthene	330.	U
207-08-9	Benzo(k)fluoranthene	330.	U
50-32-8	Benzo(a)pyrene	230.	U
193-39-5	Indeno(1,2,3-cd)pyrene	330.	U
53-70-3	Dibenz(a,h)anthracene	330.	U
191-24-2	Benzo(g,h,i)perylene	330.	U

(1) - Cannot be separated from diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1

Lab Name: LENL-P Contract: 55-4342.09

Lab Code: LENL-P Case No.: 55434 SAS No.: SDG No.: 7B310

Matrix: (soil/water) SOIL Lab Sample ID: SBLK558

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 61383

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. dec._____ Date Extracted: 5/ 7/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 5/15/91

GPC Cleanup: (Y/N) N pH: .0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	170.	U
111-44-4	bis(2-Chloroethyl)ether	200.	U J
95-57-8	2-Chlorophenol	130.	U
541-73-1	1,3-Dichlorobenzene	230.	U J
106-46-7	1,4-Dichlorobenzene	200.	U J
100-51-6	Benzyl alcohol	200.	U
95-50-1	1,2-Dichlorobenzene	170.	U J
95-48-7	2-Methylphenol	130.	U
108-60-1	bis(2-Chloroisopropyl)ether	170.	U J
106-44-5	4-Methylphenol	230.	U
621-64-7	N-Nitroso-di-n-propylamine	200.	U J
67-72-1	Hexachloroethane	230.	U J
98-95-3	Nitrobenzene	330.	U J
78-59-1	Isophorone	230.	U J
88-75-5	2-Nitrophenol	330.	U
105-67-9	2,4-Dimethylphenol	330.	U
65-85-0	Benzoic acid	900.	U
111-91-1	bis(2-Chloroethoxy)methane	200.	U J
120-83-2	2,4-Dichlorophenol	200.	U
120-82-1	1,2,4-Trichlorobenzene	230.	U J
91-20-3	Naphthalene	100.	U J
106-47-8	4-Chloroaniline	130.	U J
87-68-3	Hexachlorobutadiene	200.	U J
59-50-7	4-Chloro-3-methylphenol	230.	U
91-57-6	2-Methylnaphthalene	130.	U J
77-47-4	Hexachlorocyclopentadiene	330.	U J
88-06-2	2,4,6-Trichlorophenol	270.	U
95-95-4	2,4,5-Trichlorophenol	300.	U
91-58-7	2-Chloronaphthalene	200.	U J
88-74-4	2-Nitroaniline	170.	U J
131-11-3	Dimethylphthalate	330.	U J
208-96-8	Acenaphthylene	170.	U J
606-20-2	2,6-Dinitrotoluene	230.	U J

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1

Lab Name: LENL-P Contract: 55-4342.09

Lab Code: LENL-P Case No.: 55434 SAS No.: SDG No.: 7B310

Matrix: (soil/water) SOIL Lab Sample ID: SBLK558

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 61383

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. dec._____ Date Extracted: 5/ 7/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 5/15/91

GPC Cleanup: (Y/N) N pH: .0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	430.	U
83-32-9	Acenaphthene	170.	U
51-28-5	2,4-Dinitrophenol	1400.	U
100-02-7	4-Nitrophenol	400.	U
132-64-9	Dibenzofuran	100.	U
121-14-2	2,4-Dinitrotoluene	230.	U
84-66-2	Diethylphthalate	330.	U
7005-72-3	4-Chlorophenyl-phenylether	200.	U
86-73-7	Fluorene	230.	U
100-01-6	4-Nitroaniline	530.	U
534-52-1	4,6-Dinitro-2-methylphenol	830.	U
86-30-6	N-Nitrosodiphenylamine	170.	U
101-55-3	4-Bromophenyl-phenylether	200.	U
118-74-1	Hexachlorobenzene	200.	U
87-86-5	Pentachlorophenol	530.	U
85-01-8	Phenanthrene	130.	U
120-12-7	Anthracene	170.	U
84-74-2	Di-n-butylphthalate	330.	U
206-44-0	Fluoranthene	130.	U
129-00-0	Pyrene	100.	U
85-68-7	Butylbenzylphthalate	330.	U
91-94-1	3,3'-Dichlorobenzidine	670.	U
56-55-3	Benzo(a)anthracene	100.	U
218-01-9	Chrysene	100.	U
117-81-7	bis(2-Ethylhexyl)phthalate	330.	U
117-84-0	Di-n-octylphthalate	330.	U
205-99-2	Benzo(b)fluoranthene	330.	U
207-08-9	Benzo(k)fluoranthene	330.	U
50-32-8	Benzo(a)pyrene	230.	U
193-39-5	Indeno(1,2,3-cd)pyrene	330.	U
53-70-3	Dibenz(a,h)anthracene	330.	U
191-24-2	Benzo(g,h,i)perylene	330.	U

(1) - Cannot be separated from diphenylamine

1A

GC VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB

Lab Name: LENL-Pensacola Contract: 55-4342.09

Lab Code: LENL-P Case No: 55434 SAS No.: SDG No.: REP7BA

Matrix: (soil/water) SOIL Lab Sample ID: AA08448

Sample wt/vol: 5.64 (g/mL) G 8020 Lab File ID: A136A14
8010 Lab File ID: B136A14

Methanol Extract: aliquot uL Date Received: 04/26/91

% Moisture: not dec. 0 Date Analyzed: 05/06/91

Column: DB624 Dilution Factor: 1.0

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg): UG/KG	Q
Method 8010			
75-27-4	Bromodichloromethane	0.3	U
75-25-2	Bromoform	0.5	U
74-83-9	Bromomethane	4	U
56-23-5	Carbon tetrachloride	0.9	U
75-00-3	Chloroethane	4	U
100-75-8	2-Chloroethylvinyl ether	0.9	U
67-66-3	Chloroform	2	U
74-87-3	Chloromethane	4	U
124-48-1	Dibromochloromethane	0.8	U
75-34-3	1,1-Dichloroethane	5	U
107-06-2	1,2-Dichloroethane	0.9	U
75-35-4	1,1-Dichloroethylene	0.8	U
156-60-5	trans-1,2-Dichloroethylene	0.5	U
78-87-5	1,2-Dichloropropane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
75-09-2	Methylene chloride	~~20~~ ~~12~~	~~B~~ U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
127-18-4	Tetrachloroethene	0.9	U
71-55-6	1,1,1-Trichloroethane	0.9	U
79-00-5	1,1,2-Trichloroethane	0.8	U
79-01-6	Trichloroethene	0.5	U
75-69-4	Trichlorofluoromethane	0.8	U
75-01-4	Vinyl chloride	4	U
Method 8020			
71-43-2	Benzene	0.2	U
108-90-7	Chlorobenzene	0.3	U
95-50-1	1,2-Dichlorobenzene	0.3	U
541-73-1	1,3-Dichlorobenzene	0.3	U
106-46-7	1,4-Dichlorobenzene	0.3	U
100-41-4	Ethylbenzene	0.4	U
108-88-3	Toluene	0.9	U
1330-20-7	Xylene (total)	0.9	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB

Lab Name: LENL-P Contract: 55-4342.09

Lab Code: LENL-P Case No.: 55434 SAS No.: SDG No.: REP7BA

Matrix: (soil/water) SOIL Lab Sample ID: AA08448

Sample wt/vol: 5.048 (g/mL) G Lab File ID: 41861

Level: (low/med) LOW Date Received: 4/26/91

% Moisture: not dec. 0. Date Analyzed: 5/ 3/91

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	(6 ~~10.~~	~~B~~ U
67-64-1	Acetone	100.	U
75-15-0	Carbon Disulfide	3.	U
75-35-4	1,1-Dichloroethene	3.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	3.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	100.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	3.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	3.	U
10061-01-5	cis-1,3-Dichloropropene	3.	U
79-01-6	Trichloroethene	3.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	2.	U
10061-02-6	trans-1,3-Dichloropropene	3.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	3.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	3.	U
100-41-4	Ethylbenzene	3.	U
100-42-5	Styrene	3.	U
1330-20-7	Xylene (total)	5.	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

7B415

Lab Name: LENL-P Contract: 55-4342.09

Lab Code: LENL-P Case No.: 55434 SAS No.: SDG No.: 7B410

Matrix: (soil/water) SOIL Lab Sample ID: AA08659

Sample wt/vol: 30.04 (g/mL) G Lab File ID: EMY2Z52

Level: (low/med) LOW Date Received: 5/ 2/91

% Moisture: not dec. 5.0 dec._____ Date Extracted: 5/ 8/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 5/18/91

GPC Cleanup: (Y/N) N pH: 8.40 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	35.	U J
11104-28-2	Aroclor-1221	35.	U J
11141-16-5	Aroclor-1232	70.	U J
53469-21-9	Aroclor-1242	35.	U J
12672-29-6	Aroclor-1248	35.	U J
11097-69-1	Aroclor-1254	35.	U J
11096-82-5	Aroclor-1260	35.	U J

1A

GC VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

7B450

Lab Name: LENL-Pensacola Contract: 55-4342.09

Lab Code: LENL-P Case No: 55434 SAS No.: SDG No.: 7B410

Matrix: (soil/water) SOIL Lab Sample ID: AA08664

Sample wt/vol: 5.25 (g/mL) G 8020 Lab File ID: A145A3
8010 Lab File ID: B145A3

Methanol Extract: aliquot uL Date Received: 05/02/91

% Moisture: not dec. 4 Date Analyzed: 05/20/91

Column: DB624 Dilution Factor: 1.0

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg):UG/KG	Q
Method 8010			
75-27-4	Bromodichloromethane	0.3	U
75-25-2	Bromoform	0.6	U
74-83-9	Bromomethane	5	U
56-23-5	Carbon tetrachloride	1	U
75-00-3	Chloroethane	5	U
100-75-8	2-Chloroethylvinyl ether	1	U
67-66-3	Chloroform	2	U
74-87-3	Chloromethane	5	U
124-48-1	Dibromochloromethane	0.9	U
75-34-3	1,1-Dichloroethane	0.6	U
107-06-2	1,2-Dichloroethane	1	U
75-35-4	1,1-Dichloroethylene	0.9	U
156-60-5	trans-1,2-Dichloroethylene	0.6	U
78-87-5	1,2-Dichloropropane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.6	U
10061-02-6	trans-1,3-Dichloropropene	0.6	U
75-09-2	Methylene chloride	5	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
127-18-4	Tetrachloroethene	1	U
71-55-6	1,1,1-Trichloroethane	1	U
79-00-5	1,1,2-Trichloroethane	0.9	U
79-01-6	Trichloroethene	0.6	U
75-69-4	Trichlorofluoromethane	0.9	U
75-01-4	Vinyl chloride	5	U
Method 8020			
71-43-2	Benzene	0.2	U
108-90-7	Chlorobenzene	0.3	U
95-50-1	1,2-Dichlorobenzene	0.3	U
541-73-1	1,3-Dichlorobenzene	0.3	U
106-46-7	1,4-Dichlorobenzene	0.3	U
100-41-4	Ethylbenzene	0.5	U
108-88-3	Toluene	1	U
1330-20-7	Xylene (total)	1	U

ATTACHMENT C

Chromatograms

samples were extracted using methylene chloride and analyzed via a gas chromatograph to ensure that a petroleum hydrocarbon was indeed present. Conditions were modified to increase oven temperature and extend the run time to ensure that even extremely high (> C31) molecular weight hydrocarbons could be observed.

Observation: Of the eight samples reanalyzed, all samples with TRPH hits greater than 10 ppm showed TPH response to a high boiling petroleum hydrocarbon eluting at the end of the GC run. For those two samples with no TRPH hits, the resulting TPH scan showed no petroleum hydrocarbon response.

GC response to those confirmed TRPH hits indicate the TRPH results are true petroleum hydrocarbons.

Appendix IX 8270 results indicate no high boiling petroleum hydrocarbons (C15 - C20) present. TPH data on six reanalysis samples indicate a high boiling hydrocarbon pattern (no library match) in the range of C35 or above.

If you should have any questions, please do not hesitate to call me at (904) 944-9772.

Sincerely,

LAW ENVIRONMENTAL NATIONAL LABS

James M.G. Tucci
Operations Manager

JMGT/kas

1A

GC VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

7B460

Lab Name: LENL-Pensacola Contract: 55-4342.09

Lab Code: LENL-P Case No: 55434 SAS No.: SDG No.: 7B410

Matrix: (soil/water) SOIL Lab Sample ID: AA08665

Sample wt/vol: 5.05 (g/mL) G 8020 Lab File ID: A144A15
8010 Lab File ID: B144A15

Methanol Extract: aliquot uL Date Received: 05/02/91

% Moisture: not dec. 5 Date Analyzed: 05/16/91

Column: DB624 Dilution Factor: 1.0

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg):UG/KG	Q
Method 8010			
75-27-4	Bromodichloromethane	0.3	U
75-25-2	Bromoform	0.6	U
74-83-9	Bromomethane	5	U
56-23-5	Carbon tetrachloride	1	U
75-00-3	Chloroethane	5	U
100-75-8	2-Chloroethylvinyl ether	1	U
67-66-3	Chloroform	2	U
74-87-3	Chloromethane	5	U
124-48-1	Dibromochloromethane	0.9	U
75-34-3	1,1-Dichloroethane	0.6	U
107-06-2	1,2-Dichloroethane	1	U
75-35-4	1,1-Dichloroethylene	0.9	U
156-60-5	trans-1,2-Dichloroethylene	0.6	U
78-87-5	1,2-Dichloropropane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.6	U
10061-02-6	trans-1,3-Dichloropropene	0.6	U
75-09-2	Methylene chloride	5	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
127-18-4	Tetrachloroethene	1	U
71-55-6	1,1,1-Trichloroethane	1	U
79-00-5	1,1,2-Trichloroethane	0.9	U
79-01-6	Trichloroethene	0.6	U
75-69-4	Trichlorofluoromethane	0.9	U
75-01-4	Vinyl chloride	5	U
Method 8020			
71-43-2	Benzene	0.2	U
108-90-7	Chlorobenzene	0.3	U
95-50-1	1,2-Dichlorobenzene	0.3	U
541-73-1	1,3-Dichlorobenzene	0.3	U
106-46-7	1,4-Dichlorobenzene	0.3	U
100-41-4	Ethylbenzene	0.5	U
108-88-3	Toluene	1	U
1330-20-7	Xylene (total)	1	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
7B540

Lab Name: LENL-P Contract: 55-4342.09

Lab Code: LENL-P Case No.: 55434 SAS No.: SDG No.: 7B530

Matrix: (soil/water) SOIL Lab Sample ID: AA08733

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 61416

Level: (low/med) LOW Date Received: 5/ 3/91

% Moisture: not dec. 3. dec._____ Date Extracted: 5/ 7/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 5/20/91

GPC Cleanup: (Y/N) N pH: 9.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	170.	U J
111-44-4	bis(2-Chloroethyl)ether	210.	U
95-57-8	2-Chlorophenol	140.	U J
541-73-1	1,3-Dichlorobenzene	240.	U
106-46-7	1,4-Dichlorobenzene	210.	U
100-51-6	Benzyl alcohol	210.	U J
95-50-1	1,2-Dichlorobenzene	170.	U
95-48-7	2-Methylphenol	140.	U J
108-60-1	bis(2-Chloroisopropyl)ether	170.	U
106-44-5	4-Methylphenol	240.	U J
621-64-7	N-Nitroso-di-n-propylamine	210.	U
67-72-1	Hexachloroethane	240.	U
98-95-3	Nitrobenzene	340.	U
78-59-1	Isophorone	240.	U
88-75-5	2-Nitrophenol	340.	U J
105-67-9	2,4-Dimethylphenol	340.	U J
65-85-0	Benzoic acid	930.	U J
111-91-1	bis(2-Chloroethoxy)methane	210.	U
120-83-2	2,4-Dichlorophenol	210.	U J
120-82-1	1,2,4-Trichlorobenzene	240.	U
91-20-3	Naphthalene	100.	U
106-47-8	4-Chloroaniline	140.	U
87-68-3	Hexachlorobutadiene	210.	U
59-50-7	4-Chloro-3-methylphenol	240.	U J
91-57-6	2-Methylnaphthalene	140.	U
77-47-4	Hexachlorocyclopentadiene	340.	U
88-06-2	2,4,6-Trichlorophenol	270.	U J
95-95-4	2,4,5-Trichlorophenol	310.	U J
91-58-7	2-Chloronaphthalene	210.	U
88-74-4	2-Nitroaniline	170.	U
131-11-3	Dimethylphthalate	340.	U
208-96-8	Acenaphthylene	170.	U
606-20-2	2,6-Dinitrotoluene	240.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

7B540

Lab Name: LENL-P Contract: 55-4342.09

Lab Code: LENL-P Case No.: 55434 SAS No.: SDG No.: 7B530

Matrix: (soil/water) SOIL Lab Sample ID: AA08733

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 61416

Level: (low/med) LOW Date Received: 5/ 3/91

% Moisture: not dec. 3. dec._____ Date Extracted: 5/ 7/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 5/20/91

GPC Cleanup: (Y/N) N pH: 9.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	450.	U
83-32-9	Acenaphthene	170.	U
51-28-5	2,4-Dinitrophenol	1500.	U J
100-02-7	4-Nitrophenol	410.	U J
132-64-9	Dibenzofuran	100.	U
121-14-2	2,4-Dinitrotoluene	240.	U
84-66-2	Diethylphthalate	340.	U
7005-72-3	4-Chlorophenyl-phenylether	210.	U
86-73-7	Fluorene	240.	U
100-01-6	4-Nitroaniline	550.	U
534-52-1	4,6-Dinitro-2-methylphenol	860.	U J
86-30-6	N-Nitrosodiphenylamine	170.	U
101-55-3	4-Bromophenyl-phenylether	210.	U
118-74-1	Hexachlorobenzene	210.	U
87-86-5	Pentachlorophenol	550.	U J
85-01-8	Phenanthrene	140.	U
120-12-7	Anthracene	170.	U
84-74-2	Di-n-butylphthalate	340.	U
206-44-0	Fluoranthene	140.	U
129-00-0	Pyrene	100.	U
85-68-7	Butylbenzylphthalate	340.	U
91-94-1	3,3'-Dichlorobenzidine	690.	U
56-55-3	Benzo(a)anthracene	100.	U
218-01-9	Chrysene	100.	U
117-81-7	bis(2-Ethylhexyl)phthalate	340.	U
117-84-0	Di-n-octylphthalate	340.	U
205-99-2	Benzo(b)fluoranthene	340.	U
207-08-9	Benzo(k)fluoranthene	340.	U
50-32-8	Benzo(a)pyrene	240.	U
193-39-5	Indeno(1,2,3-cd)pyrene	340.	U
53-70-3	Dibenz(a,h)anthracene	340.	U
191-24-2	Benzo(g,h,i)perylene	340.	U

(1) - Cannot be separated from diphenylamine

TRPH ANALYSIS DATA SHEET

EPA SAMPLE NO.

7B56

Lab Name: LENL-Pensacola

Contract: 55-4342.09

Lab Code: LENL Case No: 55434

SAS No.: SDG No.: 7B530

Matrix: (soil/water) SOIL

Lab Sample ID: AA08742

Sample wt/vol: 20.02 (g/mL) G

Date Received: 05/03/91

% Moisture: 7

Date Analyzed: 06/21/91

Dilution Factor: 1.0

TRPH (I.R.) 9073/SM503E

CONCENTRATION UNITS: mg/Kg	Q
14	J

1A

GC VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

7B610

Lab Name: LENL-Pensacola Contract: 55-4342.09

Lab Code: LENL-P Case No: 55434 SAS No.: SDG No.: 7B530

Matrix: (soil/water) SOIL Lab Sample ID: AA08737

Sample wt/vol: 5.30 (g/mL) G 8020 Lab File ID: A141A6
8010 Lab File ID: B141A6

Methanol Extract: aliquot uL Date Received: 05/03/91

% Moisture: not dec. 8 Date Analyzed: 05/13/91

Column: DB624 Dilution Factor: 1.0

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg):UG/KG	Q
Method 8010			
75-27-4	Bromodichloromethane	0.3	U
75-25-2	Bromoform	0.6	U
74-83-9	Bromomethane	5	U
56-23-5	Carbon tetrachloride	1	U
75-00-3	Chloroethane	5	U
100-75-8	2-Chloroethylvinyl ether	1	U
67-66-3	Chloroform	2	U
74-87-3	Chloromethane	5	U
124-48-1	Dibromochloromethane	0.9	U
75-34-3	1,1-Dichloroethane	0.6	U
107-06-2	1,2-Dichloroethane	1	U
75-35-4	1,1-Dichloroethylene	0.9	U
156-60-5	trans-1,2-Dichloroethylene	0.6	U
78-87-5	1,2-Dichloropropane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.6	U
10061-02-6	trans-1,3-Dichloropropene	0.6	U
75-09-2	Methylene chloride	5	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
127-18-4	Tetrachloroethene	1	U
71-55-6	1,1,1-Trichloroethane	1	U
79-00-5	1,1,2-Trichloroethane	0.9	U
79-01-6	Trichloroethene	0.6	U
75-69-4	Trichlorofluoromethane	0.9	U
75-01-4	Vinyl chloride	5	U
Method 8020			
71-43-2	Benzene	3	
108-90-7	Chlorobenzene	0.3	U
95-50-1	1,2-Dichlorobenzene	0.3	U
541-73-1	1,3-Dichlorobenzene	0.3	U
106-46-7	1,4-Dichlorobenzene	0.3	U
100-41-4	Ethylbenzene	2	
108-88-3	Toluene	7	
1330-20-7	Xylene (total)	1	U

1A

GC VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

7B610RE

Lab Name: LENL-Pensacola Contract: 55-4342.09

Lab Code: LENL-P Case No: 55434 SAS No.: SDG No.: 7B530

Matrix: (soil/water) SOIL Lab Sample ID: AA08737RE

Sample wt/vol: 5.46 (g/mL) G 8020 Lab File ID: A145A12
8010 Lab File ID: B145A12

Methanol Extract: aliquot uL Date Received: 05/03/91

% Moisture: not dec. 8 Date Analyzed: 05/20/91

Column: DB624 Dilution Factor: 1.0

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg):UG/KG	Q
Method 8010			
75-27-4	Bromodichloromethane	0.3	U
75-25-2	Bromoform	0.6	U
74-83-9	Bromomethane	5	U
56-23-5	Carbon tetrachloride	1	U
75-00-3	Chloroethane	5	U
100-75-8	2-Chloroethylvinyl ether	1	U
67-66-3	Chloroform	2	U
74-87-3	Chloromethane	5	U
124-48-1	Dibromochloromethane	0.9	U
75-34-3	1,1-Dichloroethane	0.6	U
107-06-2	1,2-Dichloroethane	1	U
75-35-4	1,1-Dichloroethylene	0.9	U
156-60-5	trans-1,2-Dichloroethylene	0.6	U
78-87-5	1,2-Dichloropropane	0.3	U
10061-01-5	cis-1,3-Dichloropropene	0.6	U
10061-02-6	trans-1,3-Dichloropropene	0.6	U
75-09-2	Methylene chloride	5	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
127-18-4	Tetrachloroethene	1	U
71-55-6	1,1,1-Trichloroethane	1	U
79-00-5	1,1,2-Trichloroethane	0.9	U
79-01-6	Trichloroethene	0.6	U
75-69-4	Trichlorofluoromethane	0.9	U
75-01-4	Vinyl chloride	5	U
Method 8020			
71-43-2	Benzene	4	
108-90-7	Chlorobenzene	0.3	U
95-50-1	1,2-Dichlorobenzene	0.3	U
541-73-1	1,3-Dichlorobenzene	0.3	U
106-46-7	1,4-Dichlorobenzene	0.3	U
100-41-4	Ethylbenzene	3	
108-88-3	Toluene	23	
1330-20-7	Xylene (total)	29	

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
7B640

Lab Name: LENL-P Contract: 55-4342.09

Lab Code: LENL-P Case No.: 55434 SAS No.: SDG No.: 7B530

Matrix: (soil/water) SOIL Lab Sample ID: AA08743

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 61424

Level: (low/med) LOW Date Received: 5/ 3/91

% Moisture: not dec. 4. dec._____ Date Extracted: 5/ 7/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 5/21/91

GPC Cleanup: (Y/N) N pH: 8.7 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	170.	U
111-44-4	bis(2-Chloroethyl)ether	210.	U
95-57-8	2-Chlorophenol	140.	U
541-73-1	1,3-Dichlorobenzene	240.	U
106-46-7	1,4-Dichlorobenzene	210.	U
100-51-6	Benzyl alcohol	210.	U
95-50-1	1,2-Dichlorobenzene	170.	U
95-48-7	2-Methylphenol	140.	U
108-60-1	bis(2-Chloroisopropyl)ether	170.	U
106-44-5	4-Methylphenol	240.	U
621-64-7	N-Nitroso-di-n-propylamine	210.	U
67-72-1	Hexachloroethane	240.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	240.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	940.	U
111-91-1	bis(2-Chloroethoxy)methane	210.	U
120-83-2	2,4-Dichlorophenol	210.	U
120-82-1	1,2,4-Trichlorobenzene	240.	U
91-20-3	Naphthalene	100.	U
106-47-8	4-Chloroaniline	140.	U
87-68-3	Hexachlorobutadiene	210.	U
59-50-7	4-Chloro-3-methylphenol	240.	U
91-57-6	2-Methylnaphthalene	140.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	280.	U
95-95-4	2,4,5-Trichlorophenol	310.	U
91-58-7	2-Chloronaphthalene	210.	U
88-74-4	2-Nitroaniline	170.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	170.	U
606-20-2	2,6-Dinitrotoluene	240.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

7B640

Lab Name: LENL-P Contract: 55-4342.09

Lab Code: LENL-P Case No.: 55434 SAS No.: SDG No.: 7B530

Matrix: (soil/water) SOIL Lab Sample ID: AA08743

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 61424

Level: (low/med) LOW Date Received: 5/ 3/91

% Moisture: not dec. 4. dec._____ Date Extracted: 5/ 7/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 5/21/91

GPC Cleanup: (Y/N) N pH: 8.7 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	450.	U
83-32-9	Acenaphthene	170.	U
51-28-5	2,4-Dinitrophenol	1500.	U
100-02-7	4-Nitrophenol	420.	U
132-64-9	Dibenzofuran	100.	U
121-14-2	2,4-Dinitrotoluene	240.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	210.	U
86-73-7	Fluorene	240.	U
100-01-6	4-Nitroaniline	560.	U
534-52-1	4,6-Dinitro-2-methylphenol	870.	U
86-30-6	N-Nitrosodiphenylamine	170.	U
101-55-3	4-Bromophenyl-phenylether	210.	U
118-74-1	Hexachlorobenzene	210.	U
87-86-5	Pentachlorophenol	560.	U
85-01-8	Phenanthrene	140.	U
120-12-7	Anthracene	170.	U
84-74-2	Di-n-butylphthalate	350.	U
206-44-0	Fluoranthene	140.	U
129-00-0	Pyrene	100.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	690.	U
56-55-3	Benzo(a)anthracene	100.	U
218-01-9	Chrysene	100.	U
117-81-7	bis(2-Ethylhexyl)phthalate	350.	U
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	240.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from diphenylamine

EPA SAMPLE NO.

7B640

TRPH ANALYSIS DATA SHEET

Lab Name: LENL-Pensacola

Contract: 55-4342.09

Lab Code: LENL Case No: 55434

SAS No.: SDG No.: 7B530

Matrix: (soil/water) SOIL

Lab Sample ID: AA08743

Sample wt/vol: 20.00 (g/mL) G

Date Received: 05/03/91

% Moisture: 4

Date Analyzed: 06/21/91

Dilution Factor: 1.0

TRPH (I.R.) 9073/SM503E

CONCENTRATION UNITS: mg/Kg	Q
10	U J

ATTACHMENT B

Letter From LENL

LAW ENVIRONMENTAL, INC.

NATIONAL LABORATORIES DIVISION
7215 PINE FOREST ROAD
PENSACOLA, FLORIDA 32526
904-944-9772
FAX 904-944-9463

July 3, 1991

Mr. Steve Crook
Law Environmental, Inc.
112 TownPark Drive
Kennesaw, GA 30144

Dear Steve:

I have reviewed the data for the GE-Albuquerque project (project #55-4340.09) and would like to provide you with several opinions.

Due to the disparity in results for the replicate analysis of sample 7B-A-45 for total recoverable petroleum hydrocarbons and sample 7B1-20 for PCB analysis, the following actions were taken:

Data for these two samples, as well as their replicates, were reviewed for method compliance, system control criteria, and transposition errors. With no errors identified and all associated quality control within acceptable limits, the original extracts for both the TRPH analysis and the PCB analysis were reanalyzed along with the corresponding replicate samples. Results of these reanalyses were within acceptable ranges as compared to the original data. Next, we proceeded to re-extract and reanalyze the original samples plus their replicates. Results from the analysis were again within acceptable range of the original analysis and the reanalysis data.

Conclusion: Based on the data generated, I feel the disparity in results between the original and replicate samples are due to sample difference. These samples due not appear to be true replicates of the original samples either analytically or physically. A reason for this may be the lithologic variance of the collected sample.

To further assess the extent of the TRPH contamination, a group of eight samples (7B6-10, 7B6-15, 7B2-20, 7B2-50, 7BA-35, 7B2-25, 7B3-A, 7B3-20) were re-extracted and reanalyzed via method 9073. All reanalysis data was with ±10% of the original results. Next, to ensure that method bias was not effecting these results, these eight

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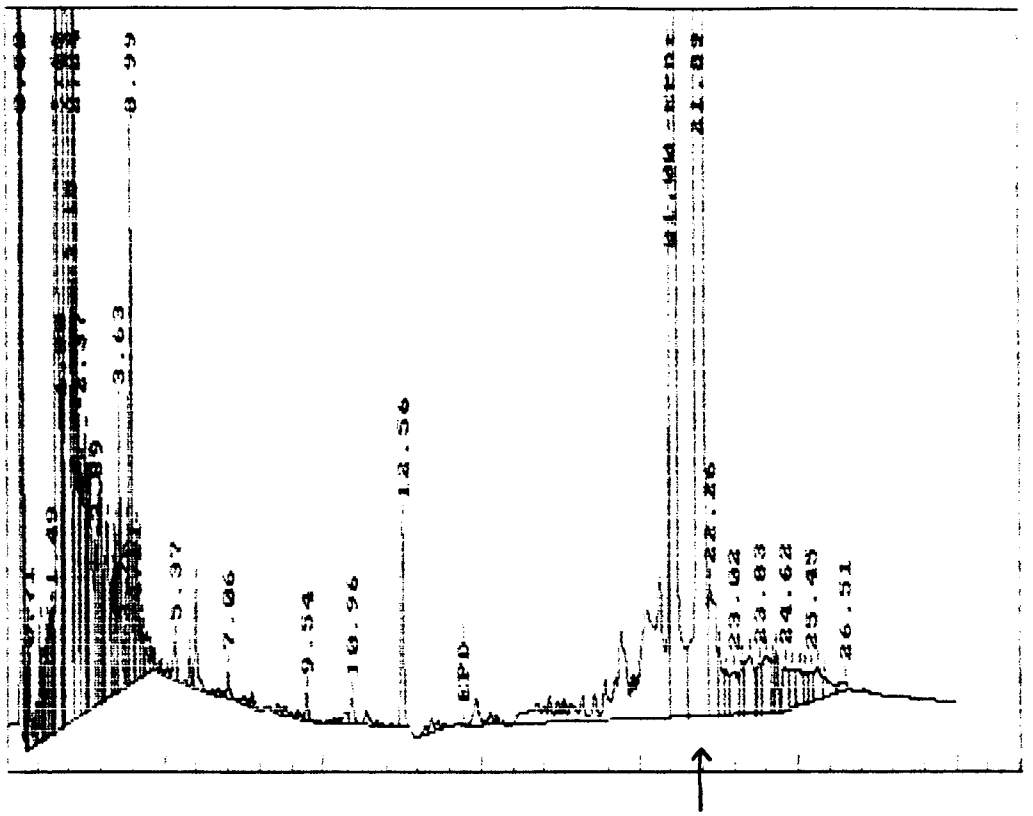

Masked DBC recovery.

DA
7-12-91