START

Superfund Technical Assessment and Response Team - Region VIII

SDMS Document ID
1012209

United States
Environmental Protection Agency

Contract No. 68-W5-0031

ANALYTICAL RESULTS REPORT

RICO ARGENTINE
Rico, Dolores County, Colorado

TDD #9511-0015

APPENDIX D

APRIL 30, 1996

URS
OPERATING SERVICES, INC.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

Ref: 8ES-MEB

December 11, 1995

MEMORANDUM

SUBJECT: Data validation for Rico Argentine Mine Site, Case #24008, SDG # HR479

FROM: Russ Leclerc RL 12/11/95
Chemist
Program Support Group, Technical Support Team

TO: Greg Oberly
8HWM-SM

The Environmental Services Assistance Team (ESAT) has completed its review of data from the analysis of seven water samples for full Contract Laboratory Program (CLP), Routine Analytical Services (RAS) organic analyses with two additional water samples for CLP RAS volatile organic analysis for **Rico Argentine Mine Site, Case 24008**, Sample Delivery Group (SDG) **#HR479**. I have evaluated ESAT's data validation package and agree with ESAT's review. Data in the enclosed package are acceptable with the qualifiers added to the data reports. Please refer to the attached ICF Kaiser data validation report including the narrative summary and comments for a full explanation of the data review findings.

If you have any questions, or if I can be of further assistance, please contact me at 312-6971.

Attachments

Printed on Recycled Paper

REGION VIII
SUMMARY OF CLP DATA QUALITY ASSURANCE REVIEW
ORGANICS - VOLATILE, SEMIVOLATILE, PESTICIDE/AROCLOR

CASE NO.	SITE NAME		SITE ID/OPERABLE UNIT
24008	Rico Argentine Mine		8ZZ / 00
RPM NAME	ESAT TID: 08-9510-703		
Greg Oberley	ESAT WUD: 25		
CONTRACTOR LABORATORY	CONTRACT NO.	SDG NO.	LABORATORY TPO/REGION
RECRA Environmental	68-D5-0010	HR479	Stevie Wilding / III

Data Reviewer Anne Babyak
Review Completion Date 12/07/95

SAMPLE ID	SAMPLE LOCATION	MATRIX	DATE SAMPLED	ANALYSIS
HQ925	RA-GW-01	Water	9/14/95	CLP Full Organic Analysis
HQ928	RA-SW-93			CLP Volatile Organics Only
HQ930	RA-SW-24			CLP Full Organic Analysis
HR479	WSW-01		9/13/95	
HR480	RA-WGW-01			
HR482	RA-SW-24			
HR483	RA-SW-92			CLP Volatile Organics Analysis
HR583	RA-WGW-02			CLP Full Organic Analysis
HR584	RA-WSW-02			

DATA QUALITY STATEMENT*
( ) Data are ACCEPTABLE according to EPA Functional Guidelines with no qualifiers (flags) added by the reviewer.
( ) Data are UNACCEPTABLE according to EPA Functional Guidelines.
(X) Data are acceptable with QUALIFICATIONS noted in review.

Telephone/Communication Logs Enclosed? Yes ___ No X

TPO Attention Required? Yes ___ No X If yes, list the items that require attention:

* Please see Data Qualifier Definitions, attached to the end of this report.

Reviewed 12/11/95 AC

REVIEW NARRATIVE SUMMARY

This data package was reviewed according to the EPA document *National Functional Guidelines for Organic Data Review*, February 1994.

Case 24008, SDG HR479, consisted of seven water samples for full CLP RAS organics analyses and two additional water samples for CLP RAS volatile organics analysis.

Samples HR482 and HR483 from this SDG and HR478 from Case 24008, SDG HR549 were the designated QC blanks. Samples were evaluated using results of these blank analyses.

The laboratory performed the required library search on all non-target sample components. All tentatively identified compounds (TICs) were qualified "NJ" - tentatively identified at an estimated concentration. TICs detected in the samples and associated blanks were qualified "R" rejected.

The following tables list all data qualifiers added to the data.

SAMPLE NUMBER	VOLATILE COMPOUND	QUALIFIER	REASON FOR QUALIFICATION	REVIEW SECTION
All	benzene, toluene, chlorobenzene, ethylbenzene, styrene, xylene (total)	UJ	Holding Time	II
HQ928, HQ930	chloroform	U	QC Blank	VIII

SAMPLE NUMBER	SEMIVOLATILE COMPOUND	QUALIFIER	REASON FOR QUALIFICATION	REVIEW SECTION
HR480RE	All	UJ	Holding Time	II
HQ925	4-methylphenol, 4-nitrophenol	UJ	Continuing Calibration	IV
HQ930, HR480, HR482, HR583, HR584	2,2'-oxybis(1-chloropropane)			
HR480, HR480RE	phenol, 2-chlorophenol, 2-methylphenol, 4-methylphenol, 2-nitrophenol, 2,4-dimethylphenol, 2,4-dichlorophenol, 4-chloro-3-methylphenol, 2,4,6-trichlorophenol, 2,4,5-trichlorophenol, 2,4-dinitrophenol, 4-nitrophenol, 4,6-dinitro-2-methylphenol, pentachlorophenol	R	Surrogate Spike Recovery	V

SAMPLE NUMBER	PESTICIDE COMPOUND	QUALIFIER	REASON FOR QUALIFICATION	REVIEW SECTION
HR480	heptachlor epoxide	NJ	Sample Results	VIII

SOW Number OLM03.0
Revision OLM03.1 **RAS ORGANIC DATA COMPLETENESS CHECKLIST**
VOLATILE

Quality Control Summary Package
- P Surrogate Recovery Summary (Form II)
- P MS/MSD Summary (Form III)
- P Method Blank Summary (Form IV)
- P GC/MS Tuning and Mass Calibration (Form V)

Sample Data Package
- P Holding Times (SMO Sample Traffic Reports)
- P Organic Analysis Data Sheets (Form I)
- P Reconstructed Ion Chromatogram(s) (RIC)
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Mass Spectral Library Search for TICs

Standards Data Package
- NR Current List of Laboratory/Instrument Detection Limits
- P Initial Calibration Data (Form VI) for each instrument
- P Continuing Calibration Data (Form VII) for each instrument
- P Internal Standard Area Summary (Form VIII)
- P Volatile Standards RICs
- P Volatile Standards Quantitation Reports

Raw QC Package
- P BFB mass spectra and mass listings

Reagent Blank data
- P Organic Analysis Data Sheets (Form I)
- P RIC or Total Ion Chromatogram
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Library Search for TICs

Matrix Spike/Matrix Spike Duplicate Data
- P Organic Analysis Data Sheets
- P RIC
- P Quantitation Reports
- NR Mass Spectral Data
- NR EPA/NIH Library search for TICs

KEY: P - Provided in original data package, as required by the SOW
R - Provided as Resubmission
NP - Not provided in original data package or as resubmission
NR - Not required under the SOW
NA - Not applicable to this data package or analysis

I. DELIVERABLES

All deliverables were present as specified in the statement of work.

VOLATILE: Yes _X_ No ___

Comments: None.

II. HOLDING TIMES

All CLP-SOW holding times were met.

VOLATILE: Yes _X_ No ___

Comments: There was no notation in the "preservative" column on the chains-of-custody for samples HQ925, HQ928, or HQ930. There was a notation, "No temp blank. Ice intact." It was assumed that samples were iced only. No qualifiers were added to the data.

All technical holding times were met.

VOLATILE: Yes ___ No _X_

Comments: All samples were analyzed for volatiles outside the holding time of seven days for aromatic compounds. Sample results were qualified as listed in the table below.

SAMPLE NUMBER	DAYS OUTSIDE LIMITS	COMPOUNDS	QUALIFIERS
HQ925, HQ928, HQ930	3	benzene, toluene, chlorobenzene, ethylbenzene, styrene, xylene (total)	UJ
HR479, HR480, HR482, HR483, HR583, HR584	4		

Comments: There was no notation in the "preservative" column on the chains-of-custody for samples HQ925, HQ928, or HQ930. There was a notation, "No temp blank. Ice intact." It was assumed that samples were iced only. No additional qualifiers were added to the data.

III. BFB PERFORMANCE RESULTS

The BFB performance results were within the specified control limits. All appropriate BFB results were included.

VOLATILE: Yes _X_ No ___

Comments: None.

IV. **INSTRUMENT CALIBRATIONS: INITIAL AND CONTINUING STANDARDS**

Initial instrument calibrations were performed according to SOW requirements and met the specified control limits listed in the functional guidelines.

VOLATILE: Yes _X_ No ___

Comments: None.

Continuing instrument calibration was performed according to SOW requirements and met specified control limits listed in the functional guidelines.

VOLATILE: Yes _X_ No ___

Comments: None.

V. **SURROGATE COMPOUND RECOVERY**

Surrogate compound recovery analysis was performed according to SOW requirements and results met specified control limits.

VOLATILE: Yes _X_ No ___

Comments: None.

VI. **MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

Matrix Spike/Matrix Spike Duplicate analysis was performed according to SOW requirements and results met recommended recovery and precision limits.

VOLATILE: Yes _X_ No ___

Comments: None.

VII. **INTERNAL STANDARD AREA**

Internal standard area analysis was performed according to SOW requirements and results met specified control limits.

VOLATILE: Yes _X_ No ___

Comments: None.

VIII. **LABORATORY BLANK ANALYSIS RESULTS**

The laboratory blank analysis was performed according to SOW requirements and met specified control limits.

VOLATILE: Yes ___ No _X_

Comments: No target analytes or TICs were detected in the volatile method blanks or storage blank.

Comments: Samples HR482 and HR483 from this SDG, and sample HR478 from Case 24008, SDG HR549, were the designated QC blanks for this SDG. Chloroform was detected in all three QC blanks. Quantitation limits in the associated samples were raised in accordance with the rules set forth in the EPA document *National Functional Guidelines for Organic Data Review*, February 1994.

BLANK ID	DATE SAMPLED	CONTAMINANT	CONC FOUND IN BLANK	SAMPLE CRQL	ASSOCIATED SAMPLES	CONC FOUND IN SAMPLE	QUALIFIER/ ADJUSTMENT
HR482 (QC blank)	09/13/95	chloroform	25 µg/L	10	HQ928 HQ930	26 µg/L 24 µg/L	U
HR483 (QC blank)			28 µg/L				
HR478 (QC blank)			29 µg/L				

IX. **SAMPLE RESULTS**

The sample results were reviewed and all compound identifications were acceptable and met SOW requirements.

VOLATILE: Yes _X_ No ___

Comments: None.

X. **Additional Comments or Problems/Resolutions not addressed above.**

VOLATILE: None.

ORGANIC RAS SEMIVOLATILE DATA QUALITY ASSURANCE REVIEW

SOW Number OLM03.0
Revision OLM03.1 **RAS ORGANIC DATA COMPLETENESS CHECKLIST**
SEMIVOLATILE

Quality Control Summary Package
- P Surrogate Recovery Summary (Form II)
- P MS/MSD Summary (Form III)
- P Method Blank Summary (Form IV)
- P GC/MS Tuning and Mass Calibration (Form V)

Sample Data Package
- P Holding Times (SMO Sample Traffic Reports)
- P Organic Analysis Data Sheets (Form I)
- P Reconstructed Ion Chromatogram(s) (RIC)
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Mass Spectral Library Search for TICs

Standards Data Package
- NR Current List of Laboratory/Instrument Detection Limits
- P Initial Calibration Data (Form VI) for each instrument
- P Continuing Calibration Data (Form VII) for each instrument
- P Internal Standard Area Summary (Form VIII)
- P Semivolatile Standards RICs
- P Semivolatile Standards Quantitation Reports

Raw QC Package
- P DFTPP mass spectra and mass listings

Reagent Blank data
- P Organic Analysis Data Sheets (Form I)
- P RIC or Total Ion Chromatogram
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Library Search for TICs

Matrix Spike/Matrix Spike Duplicate Data
- P Organic Analysis Data Sheets
- P RIC
- P Quantitation Reports
- NR Mass Spectral Data
- NR EPA/NIH Library search for TICs

KEY: P - Provided in original data package, as required by the SOW
R - Provided as Resubmission
NP - Not provided in original data package or as resubmission
NR - Not required under the SOW
NA - Not applicable to this data package or analysis

ORGANIC RAS SEMIVOLATILE DATA QUALITY ASSURANCE REVIEW

I. **DELIVERABLES**

All deliverables were present as specified in the statement of work.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

II. **HOLDING TIMES**

All CLP-SOW holding times were met.

SEMIVOLATILE: Yes _X_ No ___

Comments: There was no notation in the "preservative" column on the chains-of-custody for samples HQ925, HQ928, or HQ930. There was a notation, "No temp blank. Ice intact." It was assumed that samples were iced only. No qualifiers were added to the data.

All technical holding times were met.

SEMIVOLATILE: Yes ___ No _X_

Comments: Sample HR480RE was re-extracted outside the technical holding time. Sample results were qualified as listed in the table below.

SAMPLE NUMBER	DAYS OUTSIDE LIMITS	COMPOUNDS	QUALIFIERS
HR480RE	1	All	UJ

Comments: There was no notation in the "preservative" column on the chains-of-custody for samples HQ925, HQ928, or HQ930. There was a notation, "No temp blank. Ice intact." It was assumed that samples were iced only. No additional qualifiers were added to the data.

III. **DFTPP PERFORMANCE RESULTS**

The DFTPP performance results were within the specified control limits. All appropriate DFTPP results were included.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

ORGANIC RAS SEMIVOLATILE DATA QUALITY ASSURANCE REVIEW

IV. **INSTRUMENT CALIBRATIONS: INITIAL AND CONTINUING STANDARDS**

Initial instrument calibrations were performed according to SOW requirements and met the specified control limits listed in the functional guidelines.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

Continuing instrument calibration was performed according to SOW requirements and met specified control limits listed in the functional guidelines.

SEMIVOLATILE: Yes ___ No _X_

Comments: The laboratory met the SOW requirements. However, when compared to the initial calibration, three compounds were outside control limits of less than 25 percent difference (%D) for the continuing calibration. Listed below are the compounds, %D, associated samples, and qualifiers added to the data.

COMPOUND	%DIFFERENCE	ASSOCIATED SAMPLES	QUALIFIERS
4-methylphenol	26.1	EQ925	UJ
4-nitrophenol	-32.0		
2,2'-oxybis(1-chloropropane)	31.9	EQ930, HR480, HR482, HR583, HR584	

V. **SURROGATE COMPOUND RECOVERY**

Surrogate compound recovery analysis was performed according to SOW requirements and results met specified control limits.

SEMIVOLATILE: Yes ___ No _X_

Comments: Four samples were outside control limits for percent surrogate recovery. Listed below are the sample numbers, surrogate compounds, quality control limits for surrogate recovery (%R), and the qualifiers added to the data. The similar results for sqamples HR480 and HR480RE suggest the possibility of a matrix effect.

ORGANIC RAS SEMIVOLATILE DATA QUALITY ASSURANCE REVIEW

SAMPLE NUMBER	SURROGATE COMPOUND	%R	QC LIMITS	ASSOCIATED COMPOUNDS	QUALIFIERS
HR480	phenol-D_5	0	10 - 110	phenol, 2-chlorophenol, 2-methylphenol, 4-methylphenol, 2-nitrophenol, 2,4-dimethylphenol, 2,4-dichlorophenol, 4-chloro-3-methylphenol, 2,4,6-trichlorophenol, 2,4,5-trichlorophenol, 2,4-dinitrophenol, 4-nitrophenol, 4,6-dinitro-2-methylphenol, pentachlorophenol	R
	2-fluorophenol	0	21 - 110		
	2,4,6-tribromophenol	3	10 - 123		
	2-chlorophenol-D_4	2	33 - 110 (advisory)		None
HR480RE	phenol-D_5	2	10 - 110		R
	2-fluorophenol	2	21 - 110		
	2,4,6-tribromophenol	8	10 - 123		
	2-chlorophenol-D_4	4	33 - 110 (advisory)		None
HR479	2-fluorophenol	10	21 - 110	None *	None *
	2-chlorophenol-D_4	18	33 - 110 (advisory)		
HR584	terphenyl-D_{14}	144	33 - 141	None *	None *

* Samples are not qualified if only one non-advisory surrogate per fraction is outside QC limits.

VI. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Matrix Spike/Matrix Spike Duplicate analysis was performed according to SOW requirements and results met recommended recovery and precision limits.

SEMIVOLATILE: Yes _X_ No ___

Comments: Sample HQ925 was designated for matrix spike/matrix spike duplicate analysis. One compound was out of QC limits for MSD percent recovery. The compound was not detected in the unspiked analysis of the sample. No qualifiers were added to the data.

COMPOUND	%R MS	%R MSD	CONTROL LIMITS
4-nitrophenol	77	84 *	10-80

* Value is outside quality control limits.

VII. **INTERNAL STANDARD AREA**

Internal standard area analysis was performed according to SOW requirements and results met specified control limits.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

VIII. **LABORATORY BLANK ANALYSIS RESULTS**

The laboratory blank analysis was performed according to SOW requirements and met specified control limits.

SEMIVOLATILE: Yes _X_ No ___

Comments: No target analytes were detected in the semivolatile extraction blanks.

Comments: Sample HR482 in this SDG was the designated QC blank. No target analytes or TICs were detected in the QC blank.

Comments: One tentatively identified compound (TIC) was found in one semivolatile extraction blank. All TICs in the associated samples were previously qualified "NJ" - estimated tentatively identified compounds in the Review Summary. The following table lists blank results, associated samples and qualifiers added to the data.

BLANK ID	DATE	TIC RETENTION TIME	ASSOCIATED SAMPLES	QUALIFIERS
SBLK3	09/20/95	14.05	HR479	R

IX. **SAMPLE RESULTS**

The sample results were reviewed and all compound identifications were acceptable and met SOW requirements.

SEMIVOLATILE: Yes _X_ No ___

Comments: Sample HR480 required re-extraction and analysis due to poor surrogate recoveries. Surrogate recoveries in the re-extraction were similarly poor. All acid compounds in HR480 and HR480RE were qualified rejected "R". No target analytes were detected in either sample. Results from HR480 should be used, as results from HR480RE were all qualified "R" due to poor surrogate recoveries or "UJ" due to holding time violation.

X. **Additional Comments or Problems/Resolutions not addressed above.**

SEMIVOLATILE: None.

ORGANIC RAS PESTICIDE/AROCLOR DATA QUALITY ASSURANCE REVIEW

SOW Number OLM03.0
Revision OLM03.1 **RAS ORGANIC DATA COMPLETENESS CHECKLIST**

PESTICIDE/AROCLOR

Quality Control Summary Package

P Surrogate Recovery Summary (Form II)
P MS/MSD Summary (Form III)
P Method Blank Summary (Form IV)
NA GC/MS Tuning and Mass Calibration (Form V)

Sample Data Package

P Holding Times (SMO Sample Traffic Reports)
P Organic Analysis Data Sheets (Form I)
P GC/EC Chromatograms
P Pesticide Identification Summary for Single Component Analytes (Form X-1) -for positive results only
NA Pesticide Identification Summary for Multicomponent Analytes (Form X-2) -for positive results only

Standards Data Package

NR Current List of Laboratory/Instrument Detection Limits
P Pesticide Initial Calibration of Single Component Analytes (Form VI-1,2)
P Pesticide Initial Calibration of Multicomponent Analytes (Form VI-3)
P Pesticide Analyte Resolution Summary (Form VI-4,5,6,7)
P Pesticide Calibration Verification Summary (Form VII-1,2)
P Pesticide Analytical Sequence (Form VIII)
P Pesticide Florisil Cartridge Check (Form IX-1)
NA Pesticide GPC Calibration (Form IX-2)
P Pesticide/Aroclor Standard Chromatograms and Data System Printouts

Reagent Blank data

P Organic Analysis Data Sheets (Form I)
P GC/EC Chromatograms and Data System Printouts

Matrix Spike/Matrix Spike Duplicate Data

P Organic Analysis Data Sheets
P GC/EC Chromatograms and Data System Printouts

KEY: P - Provided in original data package, as required by the SOW
R - Provided as Resubmission
NP - Not provided in original data package or as resubmission
NR - Not required under the SOW
NA - Not applicable to this data package or analysis

ORGANIC RAS PESTICIDE/AROCLOR DATA QUALITY ASSURANCE REVIEW

I. **DELIVERABLES**

All deliverables were present as specified in the statement of work.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

II. **HOLDING TIMES**

All **CLP-SOW** holding times were met.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: There was no notation in the "preservative" column on the chains-of-custody for samples HQ925, HQ928, or HQ930. There was a notation, "No temp blank. Ice intact." It was assumed that samples were iced only. No qualifiers were added to the data.

All **technical** holding times were met.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: There was no notation in the "preservative" column on the chains-of-custody for samples HQ925, HQ928, or HQ930. There was a notation, "No temp blank. Ice intact." It was assumed that samples were iced only. No qualifiers were added to the data.

III. **SURROGATE COMPOUND RECOVERY**

Surrogate compound recovery analysis was performed according to SOW requirements and results met specified control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

IV. **MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

Matrix Spike/Matrix Spike Duplicate analysis was performed according to SOW requirements and results met recommended recovery and precision limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

V. **INTERNAL STANDARD AREA**

Internal standard area analysis was performed according to SOW requirements and results met specified control limits.

PESTICIDE/AROCLOR: Yes ___ No ___ N/A _X_

Comments: None.

VI. **PESTICIDE / AROCLOR STANDARDS CRITERIA**

The pesticide resolution check mixture analysis was performed according to SOW requirements and results met recommended recovery limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The pesticide performance evaluation mixture analysis was performed according to SOW requirements and results met recommended recovery limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The breakdown of 4,4'DDT and of Endrin was less than 20% and the combined breakdown was less than 30%.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The decachlorobiphenyl (DCB) and tetrachloro-m-xylene (TCX) retention time shifts were within the specified control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

In the initial calibration, the single component pesticides showed a percent difference of no more than 20% relative standard deviation (RSD) (no more than 25% RSD for alpha-BHC and delta-BHC) on both columns.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

In the continuing calibrations, the single component pesticides showed a percent difference (%D) of no more than 25% on both columns.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The multi-component target compound analyses were performed according to SOW requirements.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The florisil cartridge lot check analysis was performed according to requirements and all spike compounds were within the specified quality control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The gel permeation chromatography (GPC) check was performed according to requirements and all spike compounds were within the specified quality control limits.

PESTICIDE/AROCLOR: Yes ___ No ___ N/A _X_

Comments: None.

VII. LABORATORY BLANK ANALYSIS RESULTS

The laboratory blank analysis was performed according to SOW requirements and met specified control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: No target analytes were detected in the extraction blank.

Comments: The instrument blank results were reviewed and met SOW requirements.

Comments: Sample HR482 was the designated QC blank for this SDG. No target analytes were detected in this blank.

VIII. SAMPLE RESULTS

The sample results were reviewed and all compound identifications were acceptable and met SOW requirements.

PESTICIDE/AROCLOR: Yes _X_ No ___

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-GW-01

HQ925

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5021101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR515

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

12/07/95

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HQ925

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5021101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR515

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

12/07/95 mu

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-GW-01

HQ925

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5021101

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK545

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)Ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	
106-44-5	4-Methylphenol	10	U	UJ
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
111-91-1	bis(2-Chloroethoxy)Methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	25	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	25	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	
99-09-2	3-Nitroaniline	25	U	
83-32-9	Acenaphthene	10	U	

12/07/95 mm

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-GW-01

HQ925

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5021101

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK545

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

UJ

(1) - Cannot be separated from Diphenylamine

12/07/95 [illegible]

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HQ925

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5021101

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK545

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

12/07/95 um

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-GW-01

HQ925

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5021101

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/16/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/17/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/20/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

12/06/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-01

HR580

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020901

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ878

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. 17 Date Analyzed: 09/21/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	~~12.20~~	~~BJ~~ UJ
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-02-6	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-01-5	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

000278

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR580

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020901

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ878

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. 17 Date Analyzed: 09/21/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	1.75	6	J	NJ
2.	UNKNOWN COLUMN BLEED	11.67	5	BJ	R
3. 556672	Cyclotetrasiloxane, octameth	15.73	43	BJN	R

000279

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-01

HR580

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020901

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK623

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 17 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/23/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	2,2'-oxybis(1-Chloropropane)	400	U
106-44-5	4-Methylphenol	400	U
621-54-7	N-Nitroso-Di-n-Propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)Methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-Methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	1000	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethyl Phthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	400	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-01

HR580

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020901

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK623

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 17 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/23/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-Methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
86-74-8	Carbazole	400	U
84-74-2	Di-n-Butylphthalate	27	J
206-44-0	Fluoranthene	400	U
129-00-0	Pyrene	400	U
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	400	U
56-55-3	Benzo(a)Anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)Phthalate	400	U
117-84-0	Di-n-Octyl Phthalate	400	U
205-99-2	Benzo(b)Fluoranthene	400	U
207-08-9	Benzo(k)Fluoranthene	400	U
50-32-8	Benzo(a)Pyrene	400	U
193-39-5	Indeno(1,2,3-cd)Pyrene	400	U
53-70-3	Dibenz(a,h)Anthracene	400	U
191-24-2	Benzo(g,h,i)Perylene	400	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR580

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020901

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK623

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 17 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/23/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.2

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	12.38	120	J	NJ
2.	UNKNOWN	12.80	1000	BJ	R
3.	UNKNOWN	30.10	360	BJ	R

RKG 11/27/95

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HR580

SDG Number: HQ922

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)
16.17		ALKANE TYPE 4	98
27.57		ALKANE TYPE 4	100
28.43		ALKANE TYPE 4	120
29.25		ALKANE TYPE 4	110
30.05		ALKANE TYPE 4	180
30.82		ALKANE TYPE 4	190
31.55		ALKANE TYPE 4	230
32.25		ALKANE TYPE 4	160
32.93		ALKANE TYPE 4	250
33.63		ALKANE TYPE 4	140

NJ

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

REC 1/27/95

RECRA ENVIRONMENTAL INC.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-01

HR580

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020901

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

% Moisture: 17 decanted: (Y/N) N Date Received: 09/15/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/22/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.2 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.0	U
319-85-7	beta-BHC	2.0	U
319-86-8	delta-BHC	2.0	U
58-89-9	gamma-BHC (Lindane)	2.0	U
76-44-8	Heptachlor	2.0	U
309-00-2	Aldrin	2.0	U
1024-57-3	Heptachlor epoxide	2.0	U
959-98-8	Endosulfan I	2.0	U
60-57-1	Dieldrin	4.0	U
72-55-9	4,4'-DDE	4.0	U
72-20-8	Endrin	4.0	U
33213-65-9	Endosulfan II	4.0	U
72-54-8	4,4'-DDD	4.0	U
1031-07-8	Endosulfan sulfate	4.0	U
50-29-3	4,4'-DDT	4.0	U
72-43-5	Methoxychlor	20	U
53494-70-5	Endrin ketone	4.0	U
7421-93-4	Endrin aldehyde	4.0	U
5103-71-9	alpha-Chlordane	2.0	U
5103-74-2	gamma-Chlordane	2.0	U
8001-35-2	Toxaphene	200	U
12674-11-2	Aroclor-1016	40	U
11104-28-2	Aroclor-1221	81	U
11141-16-5	Aroclor-1232	40	U
53469-21-9	Aroclor-1242	40	U
12672-29-6	Aroclor-1248	40	U
11097-69-1	Aroclor-1254	40	U
11096-82-5	Aroclor-1260	40	U

RKC 11/28/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-02

HR571

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020614

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ874

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 17 Date Analyzed: 09/21/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	1210	~~B~~ U
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-02-6	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-01-5	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

000237

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR571

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020614

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ874

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 17 Date Analyzed: 09/21/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN COLUMN BLEED	11.68	10	BJ
2. 556672	Cyclotetrasiloxane, octameth	15.76	52	BJN

000238

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-02

HR571

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020614

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK514

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 17 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/18/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	2,2'-oxybis(1-Chloropropane)	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-Di-n-Propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)Methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-Methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	1000	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethyl Phthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	400	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-02

HR571

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020614

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK514

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 17 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/18/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-Methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
86-74-8	Carbazole	400	U
84-74-2	Di-n-Butylphthalate	400	U
206-44-0	Fluoranthene	400	U
129-00-0	Pyrene	400	U
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	400	U
56-55-3	Benzo(a)Anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)Phthalate	400	U
117-84-0	Di-n-Octyl Phthalate	400	U
205-99-2	Benzo(b)Fluoranthene	400	U
207-08-9	Benzo(k)Fluoranthene	400	U
50-32-8	Benzo(a)Pyrene	400	U
193-39-5	Indeno(1,2,3-cd)Pyrene	400	U
53-70-3	Dibenz(a,h)Anthracene	400	U
191-24-2	Benzo(g,h,i)Perylene	400	U

(1) - Cannot be separated from Diphenylamine

KEG 11/27/95

1F.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR571

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020614

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK514

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 17 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/18/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.0

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	14.08	180	J	NJ
2.	UNKNOWN	30.30	380	BJ	R

9/27/95

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-02

HR571

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020614

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

% Moisture: 17 decanted: (Y/N) N Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/15/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/22/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.0	U
319-85-7	beta-BHC	2.0	U
319-86-8	delta-BHC	2.0	U
58-89-9	gamma-BHC (Lindane)	2.0	U
76-44-8	Heptachlor	2.0	U
309-00-2	Aldrin	2.0	U
1024-57-3	Heptachlor epoxide	2.0	U
959-98-8	Endosulfan I	2.0	U
60-57-1	Dieldrin	4.0	U
72-55-9	4,4'-DDE	4.0	U
72-20-8	Endrin	4.0	U
33213-65-9	Endosulfan II	4.0	U
72-54-8	4,4'-DDD	4.0	U
1031-07-8	Endosulfan sulfate	4.0	U
50-29-3	4,4'-DDT	4.0	U
72-43-5	Methoxychlor	20	U
53494-70-5	Endrin ketone	4.0	U
7421-93-4	Endrin aldehyde	4.0	U
5103-71-9	alpha-Chlordane	2.0	U
5103-74-2	gamma-Chlordane	2.0	U
8001-35-2	Toxaphene	200	U
12674-11-2	Aroclor-1016	40	U
11104-28-2	Aroclor-1221	81	U
11141-16-5	Aroclor-1232	40	U
53469-21-9	Aroclor-1242	40	U
12672-29-6	Aroclor-1248	40	U
11097-69-1	Aroclor-1254	40	U
11096-82-5	Aroclor-1260	40	U

KKC 11/25/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-03

HR568

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020612

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ851

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 7 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	11 ~~10~~	~~B~~ U
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-02-6	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-01-5	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

000207

FORM I VOA OLM03.0

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR568

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020612

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ851

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 7 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 556672	Cyclotetrasiloxane, octameth	15.73	20	BJN

R

000208

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
KA SE 03

HR568RE

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020612RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ872

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 7 Date Analyzed: 09/21/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	11 B	B
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-02-6	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-01-5	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

000216

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR568RE

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020612RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ872

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 7 Date Analyzed: 09/21/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN COLUMN BLEED	11.70	7	BJ	R
2. 556672	Cyclotetrasiloxane, octameth	15.74	42	BJN	R

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-03

HR568

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020612

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK513

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 7 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/18/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350	U
111-44-4	bis(2-Chloroethyl)Ether	350	U
95-57-8	2-Chlorophenol	350	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
95-50-1	1,2-Dichlorobenzene	350	U
95-48-7	2-Methylphenol	350	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350	U
106-44-5	4-Methylphenol	350	U
621-64-7	N-Nitroso-Di-n-Propylamine	350	U
67-72-1	Hexachloroethane	350	U
98-95-3	Nitrobenzene	350	U
78-59-1	Isophorone	350	U
88-75-5	2-Nitrophenol	350	U
105-67-9	2,4-Dimethylphenol	350	U
111-91-1	bis(2-Chloroethoxy)Methane	350	U
120-83-2	2,4-Dichlorophenol	350	U
120-82-1	1,2,4-Trichlorobenzene	350	U
91-20-3	Naphthalene	350	U
106-47-8	4-Chloroaniline	350	U
87-68-3	Hexachlorobutadiene	350	U
59-50-7	4-Chloro-3-Methylphenol	350	U
91-57-6	2-Methylnaphthalene	350	U
77-47-4	Hexachlorocyclopentadiene	350	U
88-06-2	2,4,6-Trichlorophenol	350	U
95-95-4	2,4,5-Trichlorophenol	890	U
91-58-7	2-Chloronaphthalene	350	U
88-74-4	2-Nitroaniline	890	U
131-11-3	Dimethyl Phthalate	350	U
208-96-8	Acenaphthylene	350	U
606-20-2	2,6-Dinitrotoluene	350	U
99-09-2	3-Nitroaniline	890	U
83-32-9	Acenaphthene	350	U

LRC 11/27/95

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-03

HR568

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020612

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK513

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 7 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/18/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	890	U
100-02-7	4-Nitrophenol	890	U
132-64-9	Dibenzofuran	350	U
121-14-2	2,4-Dinitrotoluene	350	U
84-66-2	Diethylphthalate	350	U
7005-72-3	4-Chlorophenyl-phenylether	350	U
86-73-7	Fluorene	350	U
100-01-6	4-Nitroaniline	890	U
534-52-1	4,6-Dinitro-2-Methylphenol	890	U
86-30-6	N-Nitrosodiphenylamine (1)	350	U
101-55-3	4-Bromophenyl-phenylether	350	U
118-74-1	Hexachlorobenzene	350	U
87-86-5	Pentachlorophenol	890	U
85-01-8	Phenanthrene	350	U
120-12-7	Anthracene	350	U
86-74-8	Carbazole	350	U
84-74-2	Di-n-Butylphthalate	350	U
206-44-0	Fluoranthene	350	U
129-00-0	Pyrene	350	U
85-68-7	Butylbenzylphthalate	350	U
91-94-1	3,3'-Dichlorobenzidine	350	U
56-55-3	Benzo(a)Anthracene	350	U
218-01-9	Chrysene	350	U
117-81-7	bis(2-Ethylhexyl)Phthalate	350	U
117-84-0	Di-n-Octyl Phthalate	350	U
205-99-2	Benzo(b)Fluoranthene	350	U
207-08-9	Benzo(k)Fluoranthene	350	U
50-32-8	Benzo(a)Pyrene	350	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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR568

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020612

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK513

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 7 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/18/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.3

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	12.93	150	BJ	R
2.	UNKNOWN	14.08	180	J	NJ
3.	UNKNOWN	30.30	360	BJ	R

KKG 11/27/95

000838

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-03

HR568

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020612

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

% Moisture: 7 decanted: (Y/N) N Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/15/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/22/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.3 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.8	U
319-85-7	beta-BHC	1.8	U
319-86-8	delta-BHC	1.8	U
58-89-9	gamma-BHC (Lindane)	1.8	U
76-44-8	Heptachlor	1.8	U
309-00-2	Aldrin	1.8	U
1024-57-3	Heptachlor epoxide	1.8	U
959-98-8	Endosulfan I	1.8	U
60-57-1	Dieldrin	3.5	U
72-55-9	4,4'-DDE	3.5	U
72-20-8	Endrin	3.5	U
33213-65-9	Endosulfan II	3.5	U
72-54-8	4,4'-DDD	3.5	U
1031-07-8	Endosulfan sulfate	3.5	U
50-29-3	4,4'-DDT	3.5	U
72-43-5	Methoxychlor	18	U
53494-70-5	Endrin ketone	3.5	U
7421-93-4	Endrin aldehyde	3.5	U
5103-71-9	alpha-Chlordane	1.8	U
5103-74-2	gamma-Chlordane	1.8	U
8001-35-2	Toxaphene	180	U
12674-11-2	Aroclor-1016	35	U
11104-28-2	Aroclor-1221	72	U
11141-16-5	Aroclor-1232	35	U
53469-21-9	Aroclor-1242	35	U
12672-29-6	Aroclor-1248	35	U
11097-69-1	Aroclor-1254	35	U
11096-82-5	Aroclor-1260	35	U

KKC 11/29/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-04

HR562

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020609

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ848

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 18 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	12	U	
74-83-9	Bromomethane	12	U	
75-01-4	Vinyl Chloride	12	U	
75-00-3	Chloroethane	12	U	
75-09-2	Methylene Chloride	14	B	uJ
67-64-1	Acetone	12	U	
75-15-0	Carbon Disulfide	12	U	uJ
75-35-4	1,1-Dichloroethene	12	U	
75-34-3	1,1-Dichloroethane	12	U	
540-59-0	1,2-Dichloroethene (total)	12	U	
67-66-3	Chloroform	12	U	
107-06-2	1,2-Dichloroethane	12	U	
78-93-3	2-Butanone	12	U	
71-55-6	1,1,1-Trichloroethane	12	U	
56-23-5	Carbon Tetrachloride	12	U	
75-27-4	Bromodichloromethane	12	U	
78-87-5	1,2-Dichloropropane	12	U	
10061-02-6	cis-1,3-Dichloropropene	12	U	
79-01-6	Trichloroethene	12	U	
124-48-1	Dibromochloromethane	12	U	
79-00-5	1,1,2-Trichloroethane	12	U	
71-43-2	Benzene	12	U	
10061-01-5	trans-1,3-Dichloropropene	12	U	
75-25-2	Bromoform	12	U	
108-10-1	4-Methyl-2-Pentanone	12	U	
591-78-6	2-Hexanone	12	U	
127-18-4	Tetrachloroethene	12	U	
79-34-5	1,1,2,2-Tetrachloroethane	12	U	
108-88-3	Toluene	12	U	
108-90-7	Chlorobenzene	12	U	
100-41-4	Ethylbenzene	12	U	
100-42-5	Styrene	12	U	
1330-20-7	Xylene (total)	12	U	

000168

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR562

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020609

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ848

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 18 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN COLUMN BLEED	11.68	8	BJ	R
2. 556672	Cyclotetrasiloxane, octameth	15.73	27	BJN	R

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-04

HR562

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020609

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK520

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 18 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/18/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	2,2'-oxybis(1-Chloropropane)	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-Di-n-Propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)Methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-Methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	1000	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethyl Phthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	400	U

000763

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
KA-SE-04

HR562

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020609

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK520

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 18 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/18/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-Methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
86-74-8	Carbazole	400	U
84-74-2	Di-n-Butylphthalate	400	U
206-44-0	Fluoranthene	400	U
129-00-0	Pyrene	400	U
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	400	U
56-55-3	Benzo(a)Anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)Phthalate	27	J
117-84-0	Di-n-Octyl Phthalate	400	U
205-99-2	Benzo(b)Fluoranthene	400	U
207-08-9	Benzo(k)Fluoranthene	400	U
50-32-8	Benzo(a)Pyrene	400	U
193-39-5	Indeno(1,2,3-cd)Pyrene	400	U
53-70-3	Dibenz(a,h)Anthracene	400	U
191-24-2	Benzo(g,h,i)Perylene	400	U

(1) - Cannot be separated from Diphenylamine

RKC 11/27/95

000764

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR562

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020609

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK520

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 18 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/18/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.1

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	12.57	260	J
2.	UNKNOWN	12.98	1300	J
3.	UNKNOWN	14.12	790	J
4.	UNKNOWN	30.28	410	BJ

NJ
R

REC 11/27/95

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HR562

SDG Number: HQ922

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)
20.47		ALKANE TYPE 4	93
27.77		ALKANE TYPE 4	98
28.63		ALKANE TYPE 4	180
29.45		ALKANE TYPE 4	110
30.25		ALKANE TYPE 4	190
31.75		ALKANE TYPE 4	190
33.13		ALKANE TYPE 4	110

~ 5

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-04

HR562

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020609

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

% Moisture: 18 decanted: (Y/N) N Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/15/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/21/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.1 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC (Lindane)	2.1	U
76-44-8	Heptachlor	2.1	U
309-00-2	Aldrin	2.1	U
1024-57-3	Heptachlor epoxide	2.1	U
959-98-8	Endosulfan I	2.1	U
60-57-1	Dieldrin	4.0	U
72-55-9	4,4'-DDE	4.0	U
72-20-8	Endrin	4.0	U
33213-65-9	Endosulfan II	4.0	U
72-54-8	4,4'-DDD	4.0	U
1031-07-8	Endosulfan sulfate	4.0	U
50-29-3	4,4'-DDT	4.0	U
72-43-5	Methoxychlor	21	U
53494-70-5	Endrin ketone	4.0	U
7421-93-4	Endrin aldehyde	4.0	U
5103-71-9	alpha-Chlordane	2.1	U
5103-74-2	gamma-Chlordane	2.1	U
8001-35-2	Toxaphene	210	U
12674-11-2	Aroclor-1016	40	U
11104-28-2	Aroclor-1221	82	U
11141-16-5	Aroclor-1232	40	U
53469-21-9	Aroclor-1242	40	U
12672-29-6	Aroclor-1248	40	U
11097-69-1	Aroclor-1254	40	U
11096-82-5	Aroclor-1260	40	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-05

HR575

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020616

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ876

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 32 Date Analyzed: 09/21/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	15	U
74-83-9	Bromomethane	15	U
75-01-4	Vinyl Chloride	15	U
75-00-3	Chloroethane	15	U
75-09-2	Methylene Chloride	15 ~~13~~	~~B~~ U
67-64-1	Acetone	15	U
75-15-0	Carbon Disulfide	15	U
75-35-4	1,1-Dichloroethene	15	U
75-34-3	1,1-Dichloroethane	15	U
540-59-0	1,2-Dichloroethene (total)	15	U
67-66-3	Chloroform	15	U
107-06-2	1,2-Dichloroethane	15	U
78-93-3	2-Butanone	15	U
71-55-6	1,1,1-Trichloroethane	15	U
56-23-5	Carbon Tetrachloride	15	U
75-27-4	Bromodichloromethane	15	U
78-87-5	1,2-Dichloropropane	15	U
10061-02-6	cis-1,3-Dichloropropene	15	U
79-01-6	Trichloroethene	15	U
124-48-1	Dibromochloromethane	15	U
79-00-5	1,1,2-Trichloroethane	15	U
71-43-2	Benzene	15	U
10061-01-5	trans-1,3-Dichloropropene	15	U
75-25-2	Bromoform	15	U
108-10-1	4-Methyl-2-Pentanone	15	U
591-78-6	2-Hexanone	15	U
127-18-4	Tetrachloroethene	15	U
79-34-5	1,1,2,2-Tetrachloroethane	15	U
108-88-3	Toluene	15	U
108-90-7	Chlorobenzene	15	U
100-41-4	Ethylbenzene	15	U
100-42-5	Styrene	15	U
1330-20-7	Xylene (total)	15	U

000257

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR575

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020616

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ876

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 32 Date Analyzed: 09/21/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	3.66	52	J	NJ
2.	UNKNOWN COLUMN BLEED	11.67	15	BJ	R
3. 556672	Cyclotetrasiloxane, octameth	15.73	73	BJN	R

000258

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-05

HR575

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020616

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK585

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 32 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	490	U	
111-44-4	bis(2-Chloroethyl)Ether	490	U	
95-57-8	2-Chlorophenol	490	U	
541-73-1	1,3-Dichlorobenzene	490	U	
106-46-7	1,4-Dichlorobenzene	490	U	
95-50-1	1,2-Dichlorobenzene	490	U	
95-48-7	2-Methylphenol	490	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	490	U	uJ
106-44-5	4-Methylphenol	490	U	
621-64-7	N-Nitroso-Di-n-Propylamine	490	U	uJ
67-72-1	Hexachloroethane	490	U	
98-95-3	Nitrobenzene	490	U	
78-59-1	Isophorone	490	U	
88-75-5	2-Nitrophenol	490	U	
105-67-9	2,4-Dimethylphenol	490	U	
111-91-1	bis(2-Chloroethoxy)Methane	490	U	
120-83-2	2,4-Dichlorophenol	490	U	
120-82-1	1,2,4-Trichlorobenzene	490	U	
91-20-3	Naphthalene	490	U	
106-47-8	4-Chloroaniline	490	U	
87-68-3	Hexachlorobutadiene	490	U	
59-50-7	4-Chloro-3-Methylphenol	490	U	
91-57-6	2-Methylnaphthalene	490	U	
77-47-4	Hexachlorocyclopentadiene	490	U	
88-06-2	2,4,6-Trichlorophenol	490	U	
95-95-4	2,4,5-Trichlorophenol	1200	U	
91-58-7	2-Chloronaphthalene	490	U	
88-74-4	2-Nitroaniline	1200	U	
131-11-3	Dimethyl Phthalate	490	U	
208-96-8	Acenaphthylene	490	U	
606-20-2	2,6-Dinitrotoluene	490	U	
99-09-2	3-Nitroaniline	1200	U	
83-32-9	Acenaphthene	490	U	

KLC 11/27/95

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-05

HR575

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020616

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK585

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 32 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1200	U
100-02-7	4-Nitrophenol	1200	U
132-64-9	Dibenzofuran	490	U
121-14-2	2,4-Dinitrotoluene	490	U
84-66-2	Diethylphthalate	490	U
7005-72-3	4-Chlorophenyl-phenylether	490	U
86-73-7	Fluorene	490	U
100-01-6	4-Nitroaniline	1200	U
534-52-1	4,6-Dinitro-2-Methylphenol	1200	U
86-30-6	N-Nitrosodiphenylamine (1)	490	U
101-55-3	4-Bromophenyl-phenylether	490	U
118-74-1	Hexachlorobenzene	490	U
87-86-5	Pentachlorophenol	1200	U
85-01-8	Phenanthrene	490	U
120-12-7	Anthracene	490	U
86-74-8	Carbazole	490	U
84-74-2	Di-n-Butylphthalate	31	J
206-44-0	Fluoranthene	490	U
129-00-0	Pyrene	490	U
85-68-7	Butylbenzylphthalate	490	U
91-94-1	3,3'-Dichlorobenzidine	490	U
56-55-3	Benzo(a)Anthracene	490	U
218-01-9	Chrysene	490	U
117-81-7	bis(2-Ethylhexyl)Phthalate	62	J
117-84-0	Di-n-Octyl Phthalate	490	U
205-99-2	Benzo(b)Fluoranthene	490	U
207-08-9	Benzo(k)Fluoranthene	490	U
50-32-8	Benzo(a)Pyrene	490	U
193-39-5	Indeno(1,2,3-cd)Pyrene	490	U
53-70-3	Dibenz(a,h)Anthracene	490	U
191-24-2	Benzo(g,h,i)Perylene	490	U

(1) - Cannot be separated from Diphenylamine

000941

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR575

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020616

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK585

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 32 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

Number TICs found: 23

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	12.63	120	J
2.	UNKNOWN	12.98	2300	J
3.	UNKNOWN	13.27	150	J
4.	UNKNOWN	14.12	1100	J
5.	UNKNOWN	16.10	390	J
6.	UNKNOWN	18.80	120	J
7.	UNKNOWN ACID	18.87	100	J
8. 2091294	9-Hexadecenoic acid	25.48	680	JN
9. 57103	Hexadecanoic acid	25.63	510	JN
10.	UNKNOWN	26.72	150	J
11.	UNKNOWN	27.05	410	J
12.	UNKNOWN	29.95	100	J
13.	UNKNOWN	30.32	800	BJ
14.	UNKNOWN	31.13	110	J
15.	UNKNOWN	31.35	160	J
16.	UNKNOWN	31.87	120	J
17.	UNKNOWN	32.57	150	J
18.	UNKNOWN	32.80	240	J
19.	UNKNOWN	34.10	100	J
20.	UNKNOWN	34.83	350	J
21.	UNKNOWN	38.42	330	J
22.	UNKNOWN	38.77	100	J
23.	UNKNOWN	40.60	260	J

NJ
R
UJ

AKC 11/27/95

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HR575

SDG Number: HQ922

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)
28.63		ALKANE TYPE 4	930
29.47		ALKANE TYPE 4	290
30.25		ALKANE TYPE 4	1100
31.00		ALKANE TYPE 4	180
31.75		ALKANE TYPE 4	890
32.45		ALKANE TYPE 4	120
33.13		ALKANE TYPE 4	980
33.85		ALKANE TYPE 4	100
34.65		ALKANE TYPE 4	800
36.63		ALKANE TYPE 4	210

NJ

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-05

HR575

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020616

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

% Moisture: 32 decanted: (Y/N) N Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/15/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/22/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.5	U
319-85-7	beta-BHC	2.5	U
319-86-8	delta-BHC	2.5	U
58-89-9	gamma-BHC (Lindane)	2.5	U
76-44-8	Heptachlor	2.5	U
309-00-2	Aldrin	2.5	U
1024-57-3	Heptachlor epoxide	2.5	U
959-98-8	Endosulfan I	2.5	U
60-57-1	Dieldrin	4.9	U
72-55-9	4,4'-DDE	4.9	U
72-20-8	Endrin	4.9	U
33213-65-9	Endosulfan II	4.9	U
72-54-8	4,4'-DDD	4.9	U
1031-07-8	Endosulfan sulfate	4.9	U
50-29-3	4,4'-DDT	4.9	U
72-43-5	Methoxychlor	25	U
53494-70-5	Endrin ketone	4.9	U
7421-93-4	Endrin aldehyde	4.9	U
5103-71-9	alpha-Chlordane	2.5	U
5103-74-2	gamma-Chlordane	2.5	U
8001-35-2	Toxaphene	250	U
12674-11-2	Aroclor-1016	49	U
11104-28-2	Aroclor-1221	99	U
11141-16-5	Aroclor-1232	49	U
53469-21-9	Aroclor-1242	49	U
12672-29-6	Aroclor-1248	49	U
11097-69-1	Aroclor-1254	49	U
11096-82-5	Aroclor-1260	49	U

KLC 11/28/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-06

HR565

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020610

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ849

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 91 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	110	U
74-83-9	Bromomethane	110	U
75-01-4	Vinyl Chloride	110	U
75-00-3	Chloroethane	110	U
75-09-2	Methylene Chloride	130	~~B~~
67-64-1	Acetone	110	U
75-15-0	Carbon Disulfide	110	U
75-35-4	1,1-Dichloroethene	110	U
75-34-3	1,1-Dichloroethane	110	U
540-59-0	1,2-Dichloroethene (total)	110	U
67-66-3	Chloroform	110	U
107-06-2	1,2-Dichloroethane	110	U
78-93-3	2-Butanone	110	U
71-55-6	1,1,1-Trichloroethane	110	U
56-23-5	Carbon Tetrachloride	110	U
75-27-4	Bromodichloromethane	110	U
78-87-5	1,2-Dichloropropane	110	U
10061-02-6	cis-1,3-Dichloropropene	110	U
79-01-6	Trichloroethene	110	U
124-48-1	Dibromochloromethane	110	U
79-00-5	1,1,2-Trichloroethane	110	U
71-43-2	Benzene	110	U
10061-01-5	trans-1,3-Dichloropropene	110	U
75-25-2	Bromoform	110	U
108-10-1	4-Methyl-2-Pentanone	110	U
591-78-6	2-Hexanone	110	U
127-18-4	Tetrachloroethene	12	J
79-34-5	1,1,2,2-Tetrachloroethane	110	U
108-88-3	Toluene	110	U
108-90-7	Chlorobenzene	110	U
100-41-4	Ethylbenzene	110	U
100-42-5	Styrene	110	U
1330-20-7	Xylene (total)	110	U

000173

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR565

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020610

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ849

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 91 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 556672	Cyclotetrasiloxane, octameth	15.74	190	BJN

R

000179

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-06

HR565RE

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020610RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ869

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 91 Date Analyzed: 09/21/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	110	U
74-83-9	Bromomethane	110	U
75-01-4	Vinyl Chloride	110	U
75-00-3	Chloroethane	110	U
75-09-2	Methylene Chloride	120	~~B~~ U
67-64-1	Acetone	110	U
75-15-0	Carbon Disulfide	14	J
75-35-4	1,1-Dichloroethene	110	U
75-34-3	1,1-Dichloroethane	110	U
540-59-0	1,2-Dichloroethene (total)	110	U
67-66-3	Chloroform	110	U
107-06-2	1,2-Dichloroethane	110	U
78-93-3	2-Butanone	110	U
71-55-6	1,1,1-Trichloroethane	110	U
56-23-5	Carbon Tetrachloride	110	U
75-27-4	Bromodichloromethane	110	U
78-87-5	1,2-Dichloropropane	110	U
10061-02-6	cis-1,3-Dichloropropene	110	U
79-01-6	Trichloroethene	110	U
124-48-1	Dibromochloromethane	110	U
79-00-5	1,1,2-Trichloroethane	110	U
71-43-2	Benzene	110	U
10061-01-5	trans-1,3-Dichloropropene	110	U
75-25-2	Bromoform	110	U
108-10-1	4-Methyl-2-Pentanone	110	U
591-78-6	2-Hexanone	110	U
127-18-4	Tetrachloroethene	32	J
79-34-5	1,1,2,2-Tetrachloroethane	110	U
108-88-3	Toluene	110	U
108-90-7	Chlorobenzene	110	U
100-41-4	Ethylbenzene	110	U
100-42-5	Styrene	110	U
1330-20-7	Xylene (total)	110	U

000187

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR565RE

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020610RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ869

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 91 Date Analyzed: 09/21/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 556672	Cyclotetrasiloxane, octameth	15.76	390	BJN

000188

FORM I VOA-TIC

OLM03.0

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-06

HR565

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020610

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK519

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 91 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/18/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	3700	U
111-44-4	bis(2-Chloroethyl)Ether	3700	U
95-57-8	2-Chlorophenol	3700	U
541-73-1	1,3-Dichlorobenzene	3700	U
106-46-7	1,4-Dichlorobenzene	3700	U
95-50-1	1,2-Dichlorobenzene	3700	U
95-48-7	2-Methylphenol	3700	U
108-60-1	2,2'-oxybis(1-Chloropropane)	3700	U
106-44-5	4-Methylphenol	3700	U
621-64-7	N-Nitroso-Di-n-Propylamine	3700	U
67-72-1	Hexachloroethane	3700	U
98-95-3	Nitrobenzene	3700	U
78-59-1	Isophorone	3700	U
88-75-5	2-Nitrophenol	3700	U
105-67-9	2,4-Dimethylphenol	3700	U
111-91-1	bis(2-Chloroethoxy)Methane	3700	U
120-83-2	2,4-Dichlorophenol	3700	U
120-82-1	1,2,4-Trichlorobenzene	3700	U
91-20-3	Naphthalene	3700	U
106-47-8	4-Chloroaniline	3700	U
87-68-3	Hexachlorobutadiene	3700	U
59-50-7	4-Chloro-3-Methylphenol	3700	U
91-57-6	2-Methylnaphthalene	3700	U
77-47-4	Hexachlorocyclopentadiene	3700	U
88-06-2	2,4,6-Trichlorophenol	3700	U
95-95-4	2,4,5-Trichlorophenol	9200	U
91-58-7	2-Chloronaphthalene	3700	U
88-74-4	2-Nitroaniline	9200	U
131-11-3	Dimethyl Phthalate	3700	U
208-96-8	Acenaphthylene	3700	U
606-20-2	2,6-Dinitrotoluene	3700	U
99-09-2	3-Nitroaniline	9200	U
83-32-9	Acenaphthene	3700	U

KKC 11/27/95

000784

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-06

HR565

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020610

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK519

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 91 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/18/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	9200	U
100-02-7	4-Nitrophenol	9200	U
132-64-9	Dibenzofuran	3700	U
121-14-2	2,4-Dinitrotoluene	3700	U
84-66-2	Diethylphthalate	3700	U
7005-72-3	4-Chlorophenyl-phenylether	3700	U
86-73-7	Fluorene	3700	U
100-01-6	4-Nitroaniline	9200	U
534-52-1	4,6-Dinitro-2-Methylphenol	9200	U
86-30-6	N-Nitrosodiphenylamine (1)	3700	U
101-55-3	4-Bromophenyl-phenylether	3700	U
118-74-1	Hexachlorobenzene	3700	U
87-86-5	Pentachlorophenol	9200	U
85-01-8	Phenanthrene	3700	U
120-12-7	Anthracene	3700	U
86-74-8	Carbazole	3700	U
84-74-2	Di-n-Butylphthalate	190	J
206-44-0	Fluoranthene	3700	U
129-00-0	Pyrene	3700	U
85-68-7	Butylbenzylphthalate	3700	U
91-94-1	3,3'-Dichlorobenzidine	3700	U
56-55-3	Benzo(a)Anthracene	3700	U
218-01-9	Chrysene	3700	U
117-81-7	bis(2-Ethylhexyl)Phthalate	290	J
117-84-0	Di-n-Octyl Phthalate	3700	U
205-99-2	Benzo(b)Fluoranthene	3700	U
207-08-9	Benzo(k)Fluoranthene	3700	U
50-32-8	Benzo(a)Pyrene	3700	U
193-39-5	Indeno(1,2,3-cd)Pyrene	3700	U
53-70-3	Dibenz(a,h)Anthracene	3700	U
191-24-2	Benzo(g,h,i)Perylene	3700	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR565

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020610

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK519

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 91 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/18/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	12.58	2100	J
2.	UNKNOWN	12.98	13000	J
3.	UNKNOWN	14.13	5500	J
4.	UNKNOWN	22.60	19000	J
5.	UNKNOWN	27.13	1200	J
6.	UNKNOWN	32.82	950	J
7.	UNKNOWN	33.87	810	J
8.	UNKNOWN	38.93	2600	J
9.	UNKNOWN	39.05	1100	J
10.	UNKNOWN	39.63	950	J

NS

000786

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HR565

SDG Number: HQ922

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)
28.63		ALKANE TYPE 4	1700
30.25		ALKANE TYPE 4	2200
31.75		ALKANE TYPE 4	1900
33.15		ALKANE TYPE 4	860

NJ

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-06

HR565

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020610

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

% Moisture: 91 decanted: (Y/N) N Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/15/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/21/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	19	U
319-85-7	beta-BHC	19	U
319-86-8	delta-BHC	19	U
58-89-9	gamma-BHC (Lindane)	19	U
76-44-8	Heptachlor	19	U
309-00-2	Aldrin	19	U
1024-57-3	Heptachlor epoxide	19	U
959-98-8	Endosulfan I	19	U
60-57-1	Dieldrin	37	U
72-55-9	4,4'-DDE	37	U
72-20-8	Endrin	37	U
33213-65-9	Endosulfan II	37	U
72-54-8	4,4'-DDD	37	U
1031-07-8	Endosulfan sulfate	37	U
50-29-3	4,4'-DDT	37	U
72-43-5	Methoxychlor	190	U
53494-70-5	Endrin ketone	37	U
7421-93-4	Endrin aldehyde	37	U
5103-71-9	alpha-Chlordane	19	U
5103-74-2	gamma-Chlordane	19	U
8001-35-2	Toxaphene	1900	U
12674-11-2	Aroclor-1016	370	U
11104-28-2	Aroclor-1221	740	U
11141-16-5	Aroclor-1232	370	U
53469-21-9	Aroclor-1242	370	U
12672-29-6	Aroclor-1248	370	U
11097-69-1	Aroclor-1254	370	U
11096-82-5	Aroclor-1260	370	U

LLG 11/23/95

001494

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-07

HR559

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020608

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ847

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 15 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	12	B
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-02-6	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-01-5	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	2	J
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

000159

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR559

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020608

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ847

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 15 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 556672	Cyclotetrasiloxane, octameth	15.72	20	BJN

R

000160

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-07

HR559

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020608

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK517

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 15 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/18/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	2,2'-oxybis(1-Chloropropane)	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-Di-n-Propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
111-91-1	bis(2-Chloroethoxy)Methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	980	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	980	U
131-11-3	Dimethyl Phthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U
99-09-2	3-Nitroaniline	980	U
83-32-9	Acenaphthene	390	U

FEC 11/17/95

000748

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SL-07

HR559

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020608

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK517

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 15 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/18/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	980	U
100-02-7	4-Nitrophenol	980	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	980	U
534-52-1	4,6-Dinitro-2-Methylphenol	980	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	980	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
86-74-8	Carbazole	390	U
84-74-2	Di-n-Butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	390	U
56-55-3	Benzo(a)Anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)Phthalate	390	U
117-84-0	Di-n-Octyl Phthalate	390	U
205-99-2	Benzo(b)Fluoranthene	390	U
207-08-9	Benzo(k)Fluoranthene	390	U
50-32-8	Benzo(a)Pyrene	390	U
193-39-5	Indeno(1,2,3-cd)Pyrene	390	U
53-70-3	Dibenz(a,h)Anthracene	390	U
191-24-2	Benzo(g,h,i)Perylene	390	U

(1) - Cannot be separated from Diphenylamine

000749

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR559

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020608

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK517

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 15 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/18/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.9

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	12.58	100	J	NJ
2.	UNKNOWN	12.98	780	J	NJ
3.	UNKNOWN	30.32	170	BJ	R

LKC 11/28/95

000750

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HR559

SDG Number: HQ922

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)
33.15		ALKANE TYPE 4	86

NJ

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-07

HR559

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020608

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

% Moisture: 15 decanted: (Y/N) N Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/15/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/21/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.9 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.0	U
319-85-7	beta-BHC	2.0	U
319-86-8	delta-BHC	2.0	U
58-89-9	gamma-BHC (Lindane)	2.0	U
76-44-8	Heptachlor	2.0	U
309-00-2	Aldrin	2.0	U
1024-57-3	Heptachlor epoxide	2.0	U
959-98-8	Endosulfan I	2.0	U
60-57-1	Dieldrin	3.9	U
72-55-9	4,4'-DDE	3.9	U
72-20-8	Endrin	3.9	U
33213-65-9	Endosulfan II	3.9	U
72-54-8	4,4'-DDD	3.9	U
1031-07-8	Endosulfan sulfate	3.9	U
50-29-3	4,4'-DDT	3.9	U
72-43-5	Methoxychlor	20	U
53494-70-5	Endrin ketone	3.9	U
7421-93-4	Endrin aldehyde	3.9	U
5103-71-9	alpha-Chlordane	2.0	U
5103-74-2	gamma-Chlordane	2.0	U
8001-35-2	Toxaphene	200	U
12674-11-2	Aroclor-1016	39	U
11104-28-2	Aroclor-1221	79	U
11141-16-5	Aroclor-1232	39	U
53469-21-9	Aroclor-1242	39	U
12672-29-6	Aroclor-1248	39	U
11097-69-1	Aroclor-1254	39	U
11096-82-5	Aroclor-1260	39	U

LLC 11/21/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-08

HR556

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020606

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ845

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 20 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	18	~~B~~ U
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-02-6	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-01-5	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	2	J
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

FORM I VOA

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR556

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020606

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ845

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 20 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 556672	Cyclotetrasiloxane, octameth	15.73	30	BJN

R

13

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-08

HR556

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020606

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK534

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 20 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 5.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	410	U
111-44-4	bis(2-Chloroethyl)Ether	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1,3-Dichlorobenzene	410	U
106-46-7	1,4-Dichlorobenzene	410	U
95-50-1	1,2-Dichlorobenzene	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	2,2'-oxybis(1-Chloropropane)	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-Di-n-Propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
111-91-1	bis(2-Chloroethoxy)Methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
120-82-1	1,2,4-Trichlorobenzene	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-Methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	1000	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethyl Phthalate	410	U
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene	410	U
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	410	U

UJ

EAG 11/27/95

000706

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-OY

HR556

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020606

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK534

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 20 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 5.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-Methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-Butylphthalate	410	U
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	U
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	410	U
56-55-3	Benzo(a)Anthracene	410	U
218-01-9	Chrysene	410	U
117-81-7	bis(2-Ethylhexyl)Phthalate	28	J
117-84-0	Di-n-Octyl Phthalate	410	U
205-99-2	Benzo(b)Fluoranthene	410	U
207-08-9	Benzo(k)Fluoranthene	410	U
50-32-8	Benzo(a)Pyrene	410	U
193-39-5	Indeno(1,2,3-cd)Pyrene	410	U
53-70-3	Dibenz(a,h)Anthracene	410	U
191-24-2	Benzo(g,h,i)Perylene	410	U

(1) - Cannot be separated from Diphenylamine

000707

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR556

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020606

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK534

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 20 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 5.9

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	12.57	94	J
2.	UNKNOWN	12.98	860	J
3.	UNKNOWN	14.12	220	J
4.	UNKNOWN	30.38	120	BJ

NJ
R

KEC 11/27/95

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HR556

SDG Number: HQ922

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)
30.25		ALKANE TYPE 4	95

NJ

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-08

HR556

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020606

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

% Moisture: 20 decanted: (Y/N) N Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/15/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/21/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 5.9 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC (Lindane)	2.1	U
76-44-8	Heptachlor	2.1	U
309-00-2	Aldrin	2.1	U
1024-57-3	Heptachlor epoxide	2.1	U
959-98-8	Endosulfan I	2.1	U
60-57-1	Dieldrin	4.1	U
72-55-9	4,4'-DDE	4.1	U
72-20-8	Endrin	4.1	U
33213-65-9	Endosulfan II	4.1	U
72-54-8	4,4'-DDD	4.1	U
1031-07-8	Endosulfan sulfate	4.1	U
50-29-3	4,4'-DDT	4.1	U
72-43-5	Methoxychlor	21	U
53494-70-5	Endrin ketone	4.1	U
7421-93-4	Endrin aldehyde	4.1	U
5103-71-9	alpha-Chlordane	2.1	U
5103-74-2	gamma-Chlordane	2.1	U
8001-35-2	Toxaphene	210	U
12674-11-2	Aroclor-1016	41	U
11104-28-2	Aroclor-1221	84	U
11141-16-5	Aroclor-1232	41	U
53469-21-9	Aroclor-1242	41	U
12672-29-6	Aroclor-1248	41	U
11097-69-1	Aroclor-1254	41	U
11096-82-5	Aroclor-1260	41	U

KEG 11/29/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-09

HR557

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020607

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ846

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 23 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	19	~~B~~
67-64-1	Acetone	13	U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	13	U
75-34-3	1,1-Dichloroethane	13	U
540-59-0	1,2-Dichloroethene (total)	13	U
67-66-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
78-87-5	1,2-Dichloropropane	13	U
10061-02-6	cis-1,3-Dichloropropene	13	U
79-01-6	Trichloroethene	13	U
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-01-5	trans-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-88-3	Toluene	13	U
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
1330-20-7	Xylene (total)	13	U

000149

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR557

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020607

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ846

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 23 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN COLUMN BLEED	11.70	7	BJ	R
2. 556672	Cyclotetrasiloxane, octameth	15.73	27	BJN	R

000150

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-09

HR557

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020607

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK576

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 23 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	430	U
111-44-4	bis(2-Chloroethyl)Ether	430	U
95-57-8	2-Chlorophenol	430	U
541-73-1	1,3-Dichlorobenzene	430	U
106-46-7	1,4-Dichlorobenzene	430	U
95-50-1	1,2-Dichlorobenzene	430	U
95-48-7	2-Methylphenol	430	U
108-60-1	2,2'-oxybis(1-Chloropropane)	430	U
106-44-5	4-Methylphenol	430	U
621-64-7	N-Nitroso-Di-n-Propylamine	430	U
67-72-1	Hexachloroethane	430	U
98-95-3	Nitrobenzene	430	U
78-59-1	Isophorone	430	U
88-75-5	2-Nitrophenol	430	U
105-67-9	2,4-Dimethylphenol	430	U
111-91-1	bis(2-Chloroethoxy)Methane	430	U
120-83-2	2,4-Dichlorophenol	430	U
120-82-1	1,2,4-Trichlorobenzene	430	U
91-20-3	Naphthalene	430	U
106-47-8	4-Chloroaniline	430	U
87-68-3	Hexachlorobutadiene	430	U
59-50-7	4-Chloro-3-Methylphenol	430	U
91-57-6	2-Methylnaphthalene	430	U
77-47-4	Hexachlorocyclopentadiene	430	U
88-06-2	2,4,6-Trichlorophenol	430	U
95-95-4	2,4,5-Trichlorophenol	1100	U
91-58-7	2-Chloronaphthalene	430	U
88-74-4	2-Nitroaniline	1100	U
131-11-3	Dimethyl Phthalate	430	U
208-96-8	Acenaphthylene	430	U
606-20-2	2,6-Dinitrotoluene	430	U
99-09-2	3-Nitroaniline	1100	U
83-32-9	Acenaphthene	430	U

LLJ

KKG 11/27/95

000722

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
KA-SE-09

HR557

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020607

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK576

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 23 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1100	U
100-02-7	4-Nitrophenol	1100	U
132-64-9	Dibenzofuran	430	U
121-14-2	2,4-Dinitrotoluene	430	U
84-66-2	Diethylphthalate	430	U
7005-72-3	4-Chlorophenyl-phenylether	430	U
86-73-7	Fluorene	430	U
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-Methylphenol	1100	U
86-30-6	N-Nitrosodiphenylamine (1)	430	U
101-55-3	4-Bromophenyl-phenylether	430	U
118-74-1	Hexachlorobenzene	430	U
87-86-5	Pentachlorophenol	1100	U
85-01-8	Phenanthrene	430	U
120-12-7	Anthracene	430	U
86-74-8	Carbazole	430	U
84-74-2	Di-n-Butylphthalate	430	U
206-44-0	Fluoranthene	430	U
129-00-0	Pyrene	430	U
85-68-7	Butylbenzylphthalate	430	U
91-94-1	3,3'-Dichlorobenzidine	430	U
56-55-3	Benzo(a)Anthracene	430	U
218-01-9	Chrysene	430	U
117-81-7	bis(2-Ethylhexyl)Phthalate	430	U
117-84-0	Di-n-Octyl Phthalate	430	U
205-99-2	Benzo(b)Fluoranthene	430	U
207-08-9	Benzo(k)Fluoranthene	430	U
50-32-8	Benzo(a)Pyrene	430	U
193-39-5	Indeno(1,2,3-cd)Pyrene	430	U
53-70-3	Dibenz(a,h)Anthracene	430	U
191-24-2	Benzo(g,h,i)Perylene	430	U

(1) - Cannot be separated from Diphenylamine

LRC 10/27/95

000723

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR557

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020607

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK576

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 23 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	12.57	250	J
2.	UNKNOWN	12.98	1600	J
3.	UNKNOWN	14.08	280	J
4.	UNKNOWN	30.33	100	BJ

NJ
R

KKC 11/27/95

000724

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HR557

SDG Number: HQ922

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)
16.37		ALKANE TYPE 4	93
20.48		ALKANE TYPE 4	100
21.68		ALKANE TYPE 4	98
23.92		ALKANE TYPE 4	110
27.77		ALKANE TYPE 4	130
28.63		ALKANE TYPE 4	180
29.45		ALKANE TYPE 4	110
30.25		ALKANE TYPE 4	250
31.75		ALKANE TYPE 4	690
33.13		ALKANE TYPE 4	720

NJ

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-09

HR557

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020607

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

% Moisture: 23 decanted: (Y/N) N Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/15/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/21/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.2	U
319-85-7	beta-BHC	2.2	U
319-86-8	delta-BHC	2.2	U
58-89-9	gamma-BHC (Lindane)	2.2	U
76-44-8	Heptachlor	2.2	U
309-00-2	Aldrin	2.2	U
1024-57-3	Heptachlor epoxide	2.2	U
959-98-8	Endosulfan I	2.2	U
60-57-1	Dieldrin	4.3	U
72-55-9	4,4'-DDE	4.3	U
72-20-8	Endrin	4.3	U
33213-65-9	Endosulfan II	4.3	U
72-54-8	4,4'-DDD	4.3	U
1031-07-8	Endosulfan sulfate	4.3	U
50-29-3	4,4'-DDT	4.3	U
72-43-5	Methoxychlor	22	U
53494-70-5	Endrin ketone	4.3	U
7421-93-4	Endrin aldehyde	4.3	U
5103-71-9	alpha-Chlordane	2.2	U
5103-74-2	gamma-Chlordane	2.2	U
8001-35-2	Toxaphene	220	U
12674-11-2	Aroclor-1016	43	U
11104-28-2	Aroclor-1221	87	U
11141-16-5	Aroclor-1232	43	U
53469-21-9	Aroclor-1242	43	U
12672-29-6	Aroclor-1248	43	U
11097-69-1	Aroclor-1254	43	U
11096-82-5	Aroclor-1260	43	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-10

HR550

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020604

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ843

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 39 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR550

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020604

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ843

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 39 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	3.67	42	J
2.	UNKNOWN COLUMN BLEED	11.68	9	BJ
3. 556672	Cyclotetrasiloxane, octameth	15.74	31	BJN

000111

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-10

HR550

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020604

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK587

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 38 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	530	U
111-44-4	bis(2-Chloroethyl)Ether	530	U
95-57-8	2-Chlorophenol	530	U
541-73-1	1,3-Dichlorobenzene	530	U
106-46-7	1,4-Dichlorobenzene	530	U
95-50-1	1,2-Dichlorobenzene	530	U
95-48-7	2-Methylphenol	530	U
108-60-1	2,2'-oxybis(1-Chloropropane)	530	U
106-44-5	4-Methylphenol	680	
621-64-7	N-Nitroso-Di-n-Propylamine	530	U
67-72-1	Hexachloroethane	530	U
98-95-3	Nitrobenzene	530	U
78-59-1	Isophorone	530	U
88-75-5	2-Nitrophenol	530	U
105-67-9	2,4-Dimethylphenol	530	U
111-91-1	bis(2-Chloroethoxy)Methane	530	U
120-83-2	2,4-Dichlorophenol	530	U
120-82-1	1,2,4-Trichlorobenzene	530	U
91-20-3	Naphthalene	530	U
106-47-8	4-Chloroaniline	530	U
87-68-3	Hexachlorobutadiene	530	U
59-50-7	4-Chloro-3-Methylphenol	530	U
91-57-6	2-Methylnaphthalene	530	U
77-47-4	Hexachlorocyclopentadiene	530	U
88-06-2	2,4,6-Trichlorophenol	530	U
95-95-4	2,4,5-Trichlorophenol	1300	U
91-58-7	2-Chloronaphthalene	530	U
88-74-4	2-Nitroaniline	1300	U
131-11-3	Dimethyl Phthalate	530	U
208-96-8	Acenaphthylene	530	U
606-20-2	2,6-Dinitrotoluene	530	U
99-09-2	3-Nitroaniline	1300	U
83-32-9	Acenaphthene	530	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-10

HR550

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020604

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK587

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 38 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1300	U
100-02-7	4-Nitrophenol	1300	U
132-64-9	Dibenzofuran	530	U
121-14-2	2,4-Dinitrotoluene	530	U
84-66-2	Diethylphthalate	530	U
7005-72-3	4-Chlorophenyl-phenylether	530	U
86-73-7	Fluorene	530	U
100-01-6	4-Nitroaniline	1300	U
534-52-1	4,6-Dinitro-2-Methylphenol	1300	U
86-30-6	N-Nitrosodiphenylamine (1)	530	U
101-55-3	4-Bromophenyl-phenylether	530	U
118-74-1	Hexachlorobenzene	530	U
87-86-5	Pentachlorophenol	1300	U
85-01-8	Phenanthrene	530	U
120-12-7	Anthracene	530	U
86-74-8	Carbazole	530	U
84-74-2	Di-n-Butylphthalate	530	U
206-44-0	Fluoranthene	530	U
129-00-0	Pyrene	530	U
85-68-7	Butylbenzylphthalate	530	U
91-94-1	3,3'-Dichlorobenzidine	530	U
56-55-3	Benzo(a)Anthracene	530	U
218-01-9	Chrysene	530	U
117-81-7	bis(2-Ethylhexyl)Phthalate	120	J
117-84-0	Di-n-Octyl Phthalate	530	U
205-99-2	Benzo(b)Fluoranthene	530	U
207-08-9	Benzo(k)Fluoranthene	530	U
50-32-8	Benzo(a)Pyrene	530	U
193-39-5	Indeno(1,2,3-cd)Pyrene	530	U
53-70-3	Dibenz(a,h)Anthracene	530	U
191-24-2	Benzo(g,h,i)Perylene	530	U

(1) - Cannot be separated from Diphenylamine

000620

FORM I SV-2 OLM03.0

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR550

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020604

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK587

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 38 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	12.57	420	J
2.	UNKNOWN	12.98	2000	J
3.	UNKNOWN	14.08	320	J
4.	UNKNOWN	14.13	670	J
5.	UNKNOWN ACID	15.85	140	J
6.	UNKNOWN ALKENE	21.62	150	J
7. 57103	Hexadecanoic acid	25.62	410	JN
8.	UNKNOWN	27.03	280	J
9.	UNKNOWN	27.15	220	J
10.	UNKNOWN	28.00	120	J
11.	UNKNOWN	30.30	380	BJ
12.	UNKNOWN	31.35	450	J
13.	UNKNOWN	31.85	240	J
14.	UNKNOWN	32.57	160	J
15.	UNKNOWN	32.82	1100	J
16.	UNKNOWN	33.35	140	J
17.	UNKNOWN	34.82	510	J
18.	UNKNOWN	38.42	460	J
19.	UNKNOWN	39.63	230	J
20.	UNKNOWN	40.62	140	J

NJ

R

NJ

RLG 11/27/95

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HR550

SDG Number: HQ922

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)
16.37		ALKANE TYPE 4	140
20.48		ALKANE TYPE 4	150
22.83		ALKANE TYPE 4	240
24.95		ALKANE TYPE 4	120
25.93		ALKANE TYPE 4	130
26.87		ALKANE TYPE 4	230
27.77		ALKANE TYPE 4	250
28.63		ALKANE TYPE 4	980
29.45		ALKANE TYPE 4	340
29.97		ALKANE TYPE 4	180
30.25		ALKANE TYPE 4	1500
31.00		ALKANE TYPE 4	230
31.75		ALKANE TYPE 4	1600
32.28		ALKANE TYPE 4	120
32.45		ALKANE TYPE 4	120
33.13		ALKANE TYPE 4	650
33.28		ALKANE TYPE 1	110
34.65		ALKANE TYPE 4	330

NJ

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-10

HR550

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020604

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

% Moisture: 39 decanted: (Y/N) N Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/15/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/21/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.8	U
319-85-7	beta-BHC	2.8	U
319-86-8	delta-BHC	2.8	U
58-89-9	gamma-BHC (Lindane)	2.8	U
76-44-8	Heptachlor	2.8	U
309-00-2	Aldrin	2.8	U
1024-57-3	Heptachlor epoxide	2.8	U
959-98-8	Endosulfan I	2.8	U
60-57-1	Dieldrin	5.4	U
72-55-9	4,4'-DDE	5.4	U
72-20-8	Endrin	5.4	U
33213-65-9	Endosulfan II	5.4	U
72-54-8	4,4'-DDD	5.4	U
1031-07-8	Endosulfan sulfate	5.4	U
50-29-3	4,4'-DDT	5.4	U
72-43-5	Methoxychlor	28	U
53494-70-5	Endrin ketone	5.4	U
7421-93-4	Endrin aldehyde	5.4	U
5103-71-9	alpha-Chlordane	2.8	U
5103-74-2	gamma-Chlordane	2.8	U
8001-35-2	Toxaphene	280	U
12674-11-2	Aroclor-1016	54	U
11104-28-2	Aroclor-1221	110	U
11141-16-5	Aroclor-1232	54	U
53469-21-9	Aroclor-1242	54	U
12672-29-6	Aroclor-1248	54	U
11097-69-1	Aroclor-1254	54	U
11096-82-5	Aroclor-1260	54	U

LKG 11/23/95

001461

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA5E-11

HR552

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020605

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ844

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 17 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 0.2

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	12.8	~~BU~~
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	8	JX
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-02-6	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-01-5	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR552

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020605

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ844

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 17 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 0.2

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 7

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	3.66	400	J
2. 80568	.alpha.-Pinene	14.82	51	JN
3.	UNKNOWN	15.27	57	J
4. 556672	Cyclotetrasiloxane, octameth	15.72	9	BJN
5.	UNKNOWN	15.92	520	J
6.	UNKNOWN	17.00	1400	J
7.	UNKNOWN AROMATIC	17.14	130	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-11

HR552

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020605

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK586

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 17 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	400	U	
111-44-4	bis(2-Chloroethyl)Ether	400	U	
95-57-8	2-Chlorophenol	400	U	
541-73-1	1,3-Dichlorobenzene	400	U	
106-46-7	1,4-Dichlorobenzene	400	U	
95-50-1	1,2-Dichlorobenzene	400	U	
95-48-7	2-Methylphenol	400	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	400	U	UJ
106-44-5	4-Methylphenol	62	J	
621-64-7	N-Nitroso-Di-n-Propylamine	400	U	UJ
67-72-1	Hexachloroethane	400	U	
98-95-3	Nitrobenzene	400	U	
78-59-1	Isophorone	400	U	
88-75-5	2-Nitrophenol	400	U	
105-67-9	2,4-Dimethylphenol	400	U	
111-91-1	bis(2-Chloroethoxy)Methane	400	U	
120-83-2	2,4-Dichlorophenol	400	U	
120-82-1	1,2,4-Trichlorobenzene	400	U	
91-20-3	Naphthalene	400	U	
106-47-8	4-Chloroaniline	400	U	
87-68-3	Hexachlorobutadiene	400	U	
59-50-7	4-Chloro-3-Methylphenol	400	U	
91-57-6	2-Methylnaphthalene	400	U	
77-47-4	Hexachlorocyclopentadiene	400	U	
88-06-2	2,4,6-Trichlorophenol	400	U	
95-95-4	2,4,5-Trichlorophenol	1000	U	
91-58-7	2-Chloronaphthalene	400	U	
88-74-4	2-Nitroaniline	1000	U	
131-11-3	Dimethyl Phthalate	400	U	
208-96-8	Acenaphthylene	400	U	
606-20-2	2,6-Dinitrotoluene	400	U	
99-09-2	3-Nitroaniline	1000	U	
83-32-9	Acenaphthene	400	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-11

HR552

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020605

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK586

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 17 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-Methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
86-74-8	Carbazole	400	U
84-74-2	Di-n-Butylphthalate	400	U
206-44-0	Fluoranthene	400	U
129-00-0	Pyrene	400	U
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	400	U
56-55-3	Benzo(a)Anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)Phthalate	36	J
117-84-0	Di-n-Octyl Phthalate	400	U
205-99-2	Benzo(b)Fluoranthene	400	U
207-08-9	Benzo(k)Fluoranthene	400	U
50-32-8	Benzo(a)Pyrene	400	U
193-39-5	Indeno(1,2,3-cd)Pyrene	400	U
53-70-3	Dibenz(a,h)Anthracene	400	U
191-24-2	Benzo(g,h,i)Perylene	400	U

(1) - Cannot be separated from Diphenylamine

KKC 11/27/95

000672

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR552

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020605

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK586

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 17 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

Number TICs found: 12

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	12.58	290	J	NJ
2.	UNKNOWN	13.00	1800	J	
3.	UNKNOWN	14.13	1000	J	
4.	UNKNOWN	16.10	96	J	
5.	UNKNOWN ACID	18.87	94	J	
6.	UNKNOWN	30.30	360	BJ	R
7.	UNKNOWN	31.35	170	J	NJ
8.	UNKNOWN	32.82	370	J	
9.	UNKNOWN	34.83	96	J	
10.	UNKNOWN	38.42	170	J	
11.	UNKNOWN	38.93	82	J	
12.	UNKNOWN	39.63	87	J	

000673

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HR552

SDG Number: HQ922

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)
26.87		ALKANE TYPE 4	82
27.77		ALKANE TYPE 4	110
28.63		ALKANE TYPE 4	390
29.45		ALKANE TYPE 4	130
30.25		ALKANE TYPE 4	540
31.00		ALKANE TYPE 4	160
31.75		ALKANE TYPE 4	730
32.45		ALKANE TYPE 4	120
33.13		ALKANE TYPE 4	370
34.65		ALKANE TYPE 4	180

NJ

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SE-11

HR552

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020605

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

% Moisture: 17 decanted: (Y/N) N Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/15/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/26/95

Injection Volume: 1.00 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 7.7 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	4.1	U
319-85-7	beta-BHC	4.1	U
319-86-8	delta-BHC	4.1	U
58-89-9	gamma-BHC (Lindane)	4.1	U
76-44-8	Heptachlor	4.1	U
309-00-2	Aldrin	4.1	U
1024-57-3	Heptachlor epoxide	4.1	U
959-98-8	Endosulfan I	4.1	U
60-57-1	Dieldrin	8.0	U
72-55-9	4,4'-DDE	8.0	U
72-20-8	Endrin	8.0	U
33213-65-9	Endosulfan II	8.0	U
72-54-8	4,4'-DDD	8.0	U
1031-07-8	Endosulfan sulfate	8.0	U
50-29-3	4,4'-DDT	8.0	U
72-43-5	Methoxychlor	41	U
53494-70-5	Endrin ketone	8.0	U
7421-93-4	Endrin aldehyde	8.0	U
5103-71-9	alpha-Chlordane	4.1	U
5103-74-2	gamma-Chlordane	4.1	U
8001-35-2	Toxaphene	410	U
12674-11-2	Aroclor-1016	80	U
11104-28-2	Aroclor-1221	160	U
11141-16-5	Aroclor-1232	80	U
53469-21-9	Aroclor-1242	80	U
12672-29-6	Aroclor-1248	80	U
11097-69-1	Aroclor-1254	80	U
11096-82-5	Aroclor-1260	80	U

KKG 11/22/95

Comments: The percent difference (%D) between the dual column quantitation of one positive result was greater than 25%. The laboratory correctly reported the smaller concentration of the two quantitated concentrations and flagged the results "P" as required by the SOW. Alternative analysis may be necessary to confirm peak identity for compounds with a significantly large dual column quantitation percent difference. The following table summarizes sample results.

SAMPLE NUMBER	COMPOUND	PERCENT DIFFERENCE	QUALIFIER
HR480	heptachlor epoxide	999.9	NJ

IX. **Additional Comments or Problems/Resolutions not addressed above.**

PESTICIDE/AROCLOR: None.

REGION VIII

DATA QUALIFIER DEFINITIONS

For the purpose of Data Validation, the following code letters and associated definitions are provided for use by the data validator to summarize the data quality.

GENERAL QUALIFIERS for use with ORGANIC DATA

R - Reported value is "rejected". Resampling or reanalysis may be necessary to verify the presence or absence of the compound.

J - The associated numerical value is an estimated quantity because the Quality Control criteria were not met.

U J - The reported quantitation limit is estimated because Quality Control criteria were not met. Compound was not detected.

N J - Estimated value of a tentatively identified compound.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

Ref: 8ES-MEB

December 11, 1995

MEMORANDUM

SUBJECT: Data validation for Rico Argentine Mine Site, Case #24008, SDG # HR481

FROM: Russ Leclerc
Chemist
Program Support Group, Technical Support Team

TO: Greg Oberly
8HWM-SM

The Environmental Services Assistance Team (ESAT) has completed its review of data from the analysis of eight soil samples for full Contract Laboratory Program (CLP), Routine Analytical Services (RAS) organic analyses for **Rico Argentine Mine Site, Case 24008**, Sample Delivery Group (SDG) **#HR481**. I have evaluated ESAT's data validation package and agree with ESAT's review. Data in the enclosed package are acceptable with the qualifiers added to the data reports. Please refer to the attached ICF Kaiser data validation report including the narrative summary and comments for a full explanation of the data review findings.

If you have any questions, or if I can be of further assistance, please contact me at 312-6971.

Attachments

Printed on Recycled Paper

REGION VIII
SUMMARY OF CLP DATA QUALITY ASSURANCE REVIEW
ORGANICS - VOLATILE, SEMIVOLATILE, PESTICIDE/AROCLOR

CASE NO.	SITE NAME		SITE ID/OPERABLE UNIT
24008	Rico Argentine Mine		8ZZ / 00
RPM NAME	ESAT TID: 08-9510-703		
Greg Oberley	ESAT WUD: 22		
CONTRACTOR LABORATORY	CONTRACT NO.	SDG NO.	LABORATORY TPO/REGION
RECRA Environmental, Inc.	68-D5-0010	HR481	Stevie Wilding / III

Data Reviewer Lynn K. Lutz
Review Completion Date 12/06/95

SAMPLE ID	SAMPLE LOCATION	MATRIX	DATE SAMPLED	ANALYSIS
HQ926	RA-SO-05	Soil	09/14/95	Full CLP RAS Organics
HQ927	RA-SO-06			
HQ929	RA-WSO-08			
HR481	RA-WSE-01		09/13/95	
HR484	RA-SO-3			
HR485	RA-SO-4			
HR581	RA-WSO-01			
HR582	RA-WSO-02			

DATA QUALITY STATEMENT*
( ) Data are ACCEPTABLE according to EPA Functional Guidelines with no qualifiers (flags) added by the reviewer.
( ) Data are UNACCEPTABLE according to EPA Functional Guidelines.
(X) Data are acceptable with QUALIFICATIONS noted in review.

Telephone/Communication Logs Enclosed? Yes ___ No X

TPO Attention Required? Yes ___ No X If yes, list the items that require attention:

* Please see Data Qualifier Definitions, attached to the end of this report.

Reviewed 12/11/95 RLC

REVIEW NARRATIVE SUMMARY

This data package was reviewed according to the EPA document *National Functional Guidelines for Organic Data Review*, February 1994.

Case 24008, SDG HR481, consisted of eight soil samples for CLP RAS organics analyses.

Water samples HR478, HR482, and HR483 from Case 24008, SDGs HR549 and HR479 were the designated QC blanks. Results from these blanks were used to evaluate samples from this SDG, HR481. Copies of the QC blank Form Is are included at the end of the report.

The laboratory performed the required library search on all non-target sample components. All tentatively identified compounds (TICs) were qualified "NJ" - tentatively identified at an estimated concentration. TICs detected in the samples and associated blanks were qualified "R" rejected.

The following tables list all data qualifiers added to the data.

SAMPLE NUMBER	VOLATILE COMPOUND	QUALIFIER	REASON FOR QUALIFICATION	REVIEW SECTION
All	methylene chloride	J or UJ	Initial Calibration	IV
All	methylene chloride	J or UJ	Continuing Calibration	
HQ927, HQ929, HQ929RE, HR485, HR581, HR582	2-hexanone	J or UJ		
HQ929RE	1,1,1-trichloroethane, carbon tetrachloride, bromodichloromethane, bromoform, 1,2-dichloropropane, trans-1,3-dichloropropene, trichloroethene, dibromochloromethane, 1,1,2-trichloroethane, benzene, cis-1,3-dichloropropene	J or UJ	Internal Standard Area	VII
HQ929, HQ929RE	2-hexanone, 4-methyl-2-pentanone, tetrachloroethene, 1,1,2,2-tetrachloroethane, toluene, chlorobenzene, ethylbenzene, styrene, xylene (total)	J or UJ		

SAMPLE NUMBER	VOLATILE COMPOUND	QUALIFIER	REASON FOR QUALIFICATION	REVIEW SECTION
HQ926	methylene chloride	11 U	Blank Analysis	VIII
HQ927, HR484, HR485		12 U		
HQ929, HQ929RE		U		
HR481		67 U		
HR581		13 U		
HR582		16 U		

SAMPLE NUMBER	SEMIVOLATILE COMPOUND	QUALIFIER	REASON FOR QUALIFICATION	REVIEW SECTION
All	2,2'-oxybis(1-chloropropane), hexachlorobutadiene	UJ	Continuing Calibration	IV

SAMPLE NUMBER	PESTICIDE COMPOUND	QUALIFIER	REASON FOR QUALIFICATION	REVIEW SECTION
HQ925	endosulfan I, alpha-chlordane, endosulfan sulfate, 4,4'-DDT	NJ	Sample Results	VIII
HQ929	endosulfan II, 4,4'-DDD			
HQ929DL	4,4'-DDD	170 U		
HQ926	delta-BHC, aldrin, heptachlor epoxide, endosulfan I, 4,4'-DDE, endosulfan sulfate, alpha-chlordane	NJ	Sample Results	VIII
HQ929	alpha-BHC, heptachlor, aldrin, endosulfan II, endosulfan sulfate, methoxychlor, endrin aldehyde, gamma-chlordane			
HQ929DL	aldrin, endosulfan sulfate			
HR484	aldrin, heptachlor epoxide, 4,4'-DDE, 4,4'-DDT			
HR485	heptachlor epoxide			

ORGANIC RAS VOLATILE DATA QUALITY ASSURANCE REVIEW

SOW Number OLM03.0
Revision OLM03.1 **RAS ORGANIC DATA COMPLETENESS CHECKLIST**
VOLATILE

Quality Control Summary Package
- P Surrogate Recovery Summary (Form II)
- P MS/MSD Summary (Form III)
- P Method Blank Summary (Form IV)
- P GC/MS Tuning and Mass Calibration (Form V)

Sample Data Package
- P Holding Times (SMO Sample Traffic Reports)
- P Organic Analysis Data Sheets (Form I)
- P Reconstructed Ion Chromatogram(s) (RIC)
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Mass Spectral Library Search for TICs

Standards Data Package
- NR Current List of Laboratory/Instrument Detection Limits
- P Initial Calibration Data (Form VI) for each instrument
- P Continuing Calibration Data (Form VII) for each instrument
- P Internal Standard Area Summary (Form VIII)
- P Volatile Standards RICs
- P Volatile Standards Quantitation Reports

Raw QC Package
- P BFB mass spectra and mass listings

Reagent Blank data
- P Organic Analysis Data Sheets (Form I)
- P RIC or Total Ion Chromatogram
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Library Search for TICs

Matrix Spike/Matrix Spike Duplicate Data
- P Organic Analysis Data Sheets
- P RIC
- P Quantitation Reports
- NR Mass Spectral Data
- NR EPA/NIH Library search for TICs

KEY: P - Provided in original data package, as required by the SOW
R - Provided as Resubmission
NP - Not provided in original data package or as resubmission
NR - Not required under the SOW
NA - Not applicable to this data package or analysis

ORGANIC RAS VOLATILE DATA QUALITY ASSURANCE REVIEW

I. **DELIVERABLES**

All deliverables were present as specified in the statement of work.

VOLATILE: Yes _X_ No ___

Comments: None.

II. **HOLDING TIMES**

All **CLP-SOW** holding times were met.

VOLATILE: Yes _X_ No ___

Comments: There was no notation in the "preservative" column on the chains-of-custody for samples HQ926, HQ927, or HQ929. There was a notation, "No temp blank. Ice intact." It was assumed that samples were iced only. No qualifiers were added to the data.

All **technical** holding times were met.

VOLATILE: Yes _X_ No ___

Comments: There was no notation in the "preservative" column on the chains-of-custody for samples HQ926, HQ927, or HQ929. There was a notation, "No temp blank. Ice intact." It was assumed that samples were iced only. No qualifiers were added to the data.

III. **BFB PERFORMANCE RESULTS**

The BFB performance results were within the specified control limits. All appropriate BFB results were included.

VOLATILE: Yes _X_ No ___

Comments: None.

IV. **INSTRUMENT CALIBRATIONS: INITIAL AND CONTINUING STANDARDS**

Initial instrument calibrations were performed according to SOW requirements and met the specified control limits listed in the functional guidelines.

VOLATILE: Yes ___ No _X_

Comments: The laboratory met all the SOW requirements. However, one compound was outside control limits of less than 30% relative standard deviation (%RSD) for the initial calibration. The following table lists the compound, %RSD, associated samples, and qualifiers added to the data.

COMPOUND	%RSD	ASSOCIATED SAMPLES	QUALIFIERS
methylene chloride	60.7	All samples	J or UJ

Continuing instrument calibration was performed according to SOW requirements and met specified control limits listed in the functional guidelines.

VOLATILE: Yes ___ No _X_

Comments: The laboratory met all the SOW requirements. However, when compared to the initial calibration, three compounds were outside control limits of less than 25 percent difference (%D) for the continuing calibration. Listed below are the compounds, %D, associated samples, and qualifiers added to the data.

COMPOUND	%DIFFERENCE	ASSOCIATED SAMPLES	QUALIFIERS
acetone	27.4	VHBLK1	None *
methylene chloride	48.1	HQ926, HR481, HR484	J or UJ
	46.8	HQ927, HQ929, HQ929RE, HR485, HR581, HR582	
2-hexanone	25.1		

* Quality control samples are not qualified.

V. SURROGATE COMPOUND RECOVERY

Surrogate compound recovery analysis was performed according to SOW requirements and results met specified control limits.

VOLATILE: Yes _X_ No ___

Comments: None.

VI. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Matrix Spike/Matrix Spike Duplicate analysis was performed according to SOW requirements and results met recommended recovery and precision limits.

VOLATILE: Yes ___ No _X_

Comments: One compound had percent recoveries (%R) outside quality control limits in the MS/MSD analysis of sample HQ926. The compound was not detected in the unspiked analysis of the sample. No qualifiers were added to the data.

COMPOUND	% R MS	% R MSD	CONTROL LIMITS
chlorobenzene	55 *	51 *	60 - 133

* Value is outside quality control limits.

VII. INTERNAL STANDARD AREA

Internal standard area analysis was performed according to SOW requirements and results met specified control limits.

VOLATILE: Yes ___ No _X_

Comments: One sample, its reanalysis, and one quality control sample had internal standard areas outside quality control limits of -50 to +100% of the associated continuing calibration internal standard area as listed in the following table.

SAMPLE	INTERNAL STANDARD	INTERNAL STANDARD AREA	CONTROL LIMITS	ASSOCIATED COMPOUNDS	QUALIFIERS
EQ926MS	chlorobenzene-D_5	39798	41770-167082	None *	None *
EQ929		27251	37107-148428	2-hexanone^, 4-methyl-2-pentanone, tetrachloroethene, 1,1,2,2-tetrachloroethane, toluene, chlorobenzene, ethylbenzene, styrene, xylene (total)	J or UJ
EQ929RE		22759			
	1,4-difluorobenzene	39039	48752-191010	1,1,1-trichloroethane, carbon tetrachloride, bromodichloromethane, bromoform, 1,2-dichloropropane, trans-1,3-dichloropropene, trichloroethene, dibromochloromethane, 1,1,2-trichloroethane, benzene, cis-1,3-dichloropropene	

* Quality control samples are not qualified.
^ No additional qualifiers were added to compounds previously qualified for continuing calibration.

VIII. LABORATORY BLANK ANALYSIS RESULTS

The laboratory blank analysis was performed according to SOW requirements and met specified control limits.

VOLATILE: Yes ___ No _X_

Comments: Methylene chloride, a common laboratory contaminant, was detected in the volatile method blanks. Quantitation limits in the associated samples were raised in accordance with the rules set forth in the EPA document *National Functional Guidelines for Organic Data Review*, February 1994.

BLANK ID	DATE	CONTAMINANT	CONCENTRATION FOUND IN BLANK	SAMPLE CRQL	ASSOCIATED SAMPLES	CONCENTRATION FOUND IN SAMPLE	QUALIFIER/ ADJUSTMENT
VBLK58	09/22/95	methylene chloride	5 µg/Kg	11	HQ926	5 µg/Kg	11 U *
				67	HR481	28 µg/Kg	67 U *
				12	HR484	4 µg/Kg	12 U *
VBLK59	09/23/95		2 µg/Kg	12	HQ927	3 µg/Kg	12 U *
				10	HQ929	12 µg/Kg	U *
				10	HQ929RE	10 µg/Kg	U *
				12	HR485	4 µg/Kg	12 U *
				13	HR581	4 µg/Kg	13 U *
				16	HR582	4 µg/Kg	16 U *

* Compound was previously qualified "J" for initial and continuing calibrations. Final qualification is a "U" flag with a "UJ" qualifier.

Comments: No target analytes were detected in the volatile storage blank.

Comments: Samples HR478, HR482, and HR483 from Case 24008, SDG HR549 and HR479, were the designated QC blanks for this SDG. The QC blanks contained chloroform at 25-28 µg/L. Chloroform was not reported in any samples in this SDG, HR481. No qualifiers were added to sample results.

Comments: Tentatively identified compounds (TICs) were found in the volatile method blanks. All TICs in the associated samples were previously qualified "NJ" - estimated tentatively identified compounds in the Review Summary. The following table lists blank results, associated samples and qualifiers added to the data.

BLANK ID	DATE	TIC RETENTION TIME	ASSOCIATED SAMPLES	QUALIFIERS
VBLK58	09/22/95	15.77	HQ926, HR481, HR484	R
VBLK59	09/23/95	15.73	HQ927, HQ929, HR485, HR581, HR582	R

ORGANIC RAS VOLATILE DATA QUALITY ASSURANCE REVIEW

IX. **SAMPLE RESULTS**

The sample results were reviewed and all compound identifications were acceptable and met SOW requirements.

VOLATILE: Yes _X_ No ___

Comments: Sample HQ929 required reanalysis due to a low internal standard area. The results in HQ929 and HQ929RE were comparable.

X. **Additional Comments or Problems/Resolutions not addressed above.**

VOLATILE: None.

ORGANIC RAS SEMIVOLATILE DATA QUALITY ASSURANCE REVIEW

SOW Number OLM03.0
Revision OLM03.1 **RAS ORGANIC DATA COMPLETENESS CHECKLIST**
SEMIVOLATILE

Quality Control Summary Package
- P Surrogate Recovery Summary (Form II)
- P MS/MSD Summary (Form III)
- P Method Blank Summary (Form IV)
- P GC/MS Tuning and Mass Calibration (Form V)

Sample Data Package
- P Holding Times (SMO Sample Traffic Reports)
- P Organic Analysis Data Sheets (Form I)
- P Reconstructed Ion Chromatogram(s) (RIC)
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Mass Spectral Library Search for TICs

Standards Data Package
- NR Current List of Laboratory/Instrument Detection Limits
- P Initial Calibration Data (Form VI) for each instrument
- P Continuing Calibration Data (Form VII) for each instrument
- P Internal Standard Area Summary (Form VIII)
- P Semivolatile Standards RICs
- P Semivolatile Standards Quantitation Reports

Raw QC Package
- P DFTPP mass spectra and mass listings

Reagent Blank data
- P Organic Analysis Data Sheets (Form I)
- P RIC or Total Ion Chromatogram
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Library Search for TICs

Matrix Spike/Matrix Spike Duplicate Data
- P Organic Analysis Data Sheets
- P RIC
- P Quantitation Reports
- NR Mass Spectral Data
- NR EPA/NIH Library search for TICs

KEY: P - Provided in original data package, as required by the SOW
R - Provided as Resubmission
NP - Not provided in original data package or as resubmission
NR - Not required under the SOW
NA - Not applicable to this data package or analysis

ORGANIC RAS SEMIVOLATILE DATA QUALITY ASSURANCE REVIEW

I. **DELIVERABLES**

All deliverables were present as specified in the statement of work.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

II. **HOLDING TIMES**

All CLP-SOW holding times were met.

SEMIVOLATILE: Yes _X_ No ___

Comments: There was no notation in the "preservative" column on the chains-of-custody for samples HQ926, HQ927, or HQ929. There was a notation, "No temp blank. Ice intact." It was assumed that samples were iced only. No qualifiers were added to the data.

All technical holding times were met.

SEMIVOLATILE: Yes _X_ No ___

Comments: There was no notation in the "preservative" column on the chains-of-custody for samples HQ926, HQ927, or HQ929. There was a notation, "No temp blank. Ice intact." It was assumed that samples were iced only. No qualifiers were added to the data.

III. **DFTPP PERFORMANCE RESULTS**

The DFTPP performance results were within the specified control limits. All appropriate DFTPP results were included.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

IV. **INSTRUMENT CALIBRATIONS: INITIAL AND CONTINUING STANDARDS**

Initial instrument calibrations were performed according to SOW requirements and met the specified control limits listed in the functional guidelines.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

Continuing instrument calibration was performed according to SOW requirements and met specified control limits listed in the functional guidelines.

SEMIVOLATILE: Yes ___ No _X_

Comments: The laboratory met the SOW requirements. However, when compared to the initial calibration, two compounds were outside control limits of less than 25 percent difference (%D) for the continuing calibration. Listed below are the compounds, %D, associated samples, and qualifiers added to the data.

COMPOUND	%DIFFERENCE	ASSOCIATED SAMPLES	QUALIFIERS
2,2'-oxybis(1-chloropropane)	41.0	All	UJ
hexachlorobutadiene	27.6		

V. **SURROGATE COMPOUND RECOVERY**

Surrogate compound recovery analysis was performed according to SOW requirements and results met specified control limits.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

VI. **MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

Matrix Spike/Matrix Spike Duplicate analysis was performed according to SOW requirements and results met recommended recovery and precision limits.

SEMIVOLATILE: Yes ___ No _X_

Comments: Two compounds had percent recoveries (%R) outside control limits in the medium-level MS/MSD analysis of sample HQ929. Neither compound was detected in the unspiked analysis of the sample. No qualifiers were added to the data.

COMPOUND	%R MS	%R MSD	CONTROL LIMITS
4-nitrophenol	93	138 *	11 - 114
2,4-dinitrotoluene	87	98 *	28 - 89

* Value is outside control limits.

Comments: All %Rs and relative percent differences (RPDs) were within control limits in the low-level MS/MSD analysis of sample HQ926.

VII. **INTERNAL STANDARD AREA**

Internal standard area analysis was performed according to SOW requirements and results met specified control limits.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

VIII. **LABORATORY BLANK ANALYSIS RESULTS**

The laboratory blank analysis was performed according to SOW requirements and met specified control limits.

SEMIVOLATILE: Yes _X_ No ___

Comments: No target analytes were detected in the semivolatile low-level or medium-level extraction blanks.

Comments: Sample HR482 from Case 24008, SDG HR479 was the designated QC blank for this SDG. No target analytes or TICs were detected in the QC blank. No qualifiers were added to the data.

Comments: Tentatively identified compounds (TICs) were found in the low-level semivolatile extraction blank. All TICs in the associated samples were previously qualified "NJ" - estimated tentatively identified compounds in the Review Summary. The following table lists blank results, associated samples and qualifiers added to the data.

BLANK ID	DATE	TIC RETENTION TIME	ASSOCIATED SAMPLES	QUALIFIERS
SBLK3	09/18/95	30.15	HQ926, HQ927, HR481, HR484, HR485, HR581, HR582	R

IX. **SAMPLE RESULTS**

The sample results were reviewed and all compound identifications were acceptable and met SOW requirements.

SEMIVOLATILE: Yes _X_ No ___

Comments: Sample HQ929 underwent medium-level extraction "due to the nature of its matrix," according to the Case Narrative. The sample contained a high level of hydrocarbons. The medium-level extraction seemed appropriate.

Comments: A TIC on the alkane report for sample HR581 had a listed retention time (RT) of 28437. Examination of the raw data indicated that this retention time should be 28.43. ESAT made this correction on the alkane report.

X. **Additional Comments or Problems/Resolutions not addressed above.**

SEMIVOLATILE: None.

ORGANIC RAS PESTICIDE/AROCLOR DATA QUALITY ASSURANCE REVIEW

SOW Number OLM03.0
Revision OLM03.1 **RAS ORGANIC DATA COMPLETENESS CHECKLIST**

PESTICIDE/AROCLOR

Quality Control Summary Package

P Surrogate Recovery Summary (Form II)
P MS/MSD Summary (Form III)
P Method Blank Summary (Form IV)
NA GC/MS Tuning and Mass Calibration (Form V)

Sample Data Package

P Holding Times (SMO Sample Traffic Reports)
P Organic Analysis Data Sheets (Form I)
P GC/EC Chromatograms
P Pesticide Identification Summary for Single Component Analytes (Form X-1) -for positive results only
NA Pesticide Identification Summary for Multicomponent Analytes (Form X-2) -for positive results only

Standards Data Package

NR Current List of Laboratory/Instrument Detection Limits
P Pesticide Initial Calibration of Single Component Analytes (Form VI-1,2)
P Pesticide Initial Calibration of Multicomponent Analytes (Form VI-3)
P Pesticide Analyte Resolution Summary (Form VI-4,5,6,7)
P Pesticide Calibration Verification Summary (Form VII-1,2)
P Pesticide Analytical Sequence (Form VIII)
P Pesticide Florisil Cartridge Check (Form IX-1)
P Pesticide GPC Calibration (Form IX-2)
P Pesticide/Aroclor Standard Chromatograms and Data System Printouts

Reagent Blank data

P Organic Analysis Data Sheets (Form I)
P GC/EC Chromatograms and Data System Printouts

Matrix Spike/Matrix Spike Duplicate Data

P Organic Analysis Data Sheets
P GC/EC Chromatograms and Data System Printouts

KEY: P - Provided in original data package, as required by the SOW
R - Provided as Resubmission
NP - Not provided in original data package or as resubmission
NR - Not required under the SOW
NA - Not applicable to this data package or analysis

ORGANIC RAS PESTICIDE/AROCLOR DATA QUALITY ASSURANCE REVIEW

I. **DELIVERABLES**

All deliverables were present as specified in the statement of work.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

II. **HOLDING TIMES**

All **CLP-SOW** holding times were met.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: There was no notation in the "preservative" column on the chains-of-custody for samples HQ926, HQ927, or HQ929. There was a notation, "No temp blank. Ice intact." It was assumed that samples were iced only. No qualifiers were added to the data.

All **technical** holding times were met.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: There was no notation in the "preservative" column on the chains-of-custody for samples HQ926, HQ927, or HQ929. There was a notation, "No temp blank. Ice intact." It was assumed that samples were iced only. No qualifiers were added to the data.

III. **SURROGATE COMPOUND RECOVERY**

Surrogate compound recovery analysis was performed according to SOW requirements and results met specified control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: Samples HQ929 and HQ929DL were analyzed at a 1:5 dilution and a 1:50 dilution. Several surrogate recoveries in each analysis were either diluted out (recovery of 0%), or were reported above the 30-150% control limits. These are acceptable results for diluted samples. No qualifiers were added to the data.

IV. **MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

Matrix Spike/Matrix Spike Duplicate analysis was performed according to SOW requirements and results met recommended recovery and precision limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

V. **INTERNAL STANDARD AREA**

Internal standard area analysis was performed according to SOW requirements and results met specified control limits.

PESTICIDE/AROCLOR: Yes ___ No ___ N/A _X_

Comments: None.

VI. **PESTICIDE / AROCLOR STANDARDS CRITERIA**

The pesticide resolution check mixture analysis was performed according to SOW requirements and results met recommended recovery limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The pesticide performance evaluation mixture analysis was performed according to SOW requirements and results met recommended recovery limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The breakdown of 4,4'-DDT and of Endrin was less than 20% and the combined breakdown was less than 30%.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The decachlorobiphenyl (DCB) and tetrachloro-m-xylene (TCX) retention time shifts were within the specified control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

In the initial calibration, the single component pesticides showed a percent difference of no more than 20% relative standard deviation (RSD) (no more than 25% RSD for alpha-BHC and delta-BHC) on both columns.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

In the continuing calibrations, the single component pesticides showed a percent difference (%D) of no more than 25% on both columns.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The multi-component target compound analyses were performed according to SOW requirements.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The florisil cartridge lot check analysis was performed according to requirements and all spike compounds were within the specified quality control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The gel permeation chromatography (GPC) check was performed according to requirements and all spike compounds were within the specified quality control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___ N/A ___

Comments: None.

VII. LABORATORY BLANK ANALYSIS RESULTS

The laboratory blank analysis was performed according to SOW requirements and met specified control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: No target analytes were detected in the extraction blank.

Comments: The instrument blank results were reviewed and met SOW requirements.

Comments: Sample HR482 from Case 24008, SDG HR479 was the designated QC blank for this SDG. No target analytes were detected in the QC blank. No qualifiers were added to the data.

VIII. **SAMPLE RESULTS**

The sample results were reviewed and all compound identifications were acceptable and met SOW requirements.

PESTICIDE/AROCLOR: Yes ___ No X

Comments: Endosulfan I and alpha-chlordane had overlapping retention time (RT) windows on both columns (RTX-35 and RTX-5). Endosulfan sulfate and 4,4'-DDT had overlapping RT windows on the RTX-5 column. All four compounds were reported in sample HQ926. It is not possible to determine whether only one compound or both of a pair are present, and at what concentration. Endosulfan I, alpha-chlordane, endosulfan sulfate, and 4,4'-DDT were qualified "NJ" in sample HQ926.

Endosulfan II and 4,4'-DDD had overlapping RT windows on both columns. Both compounds were reported in sample HQ929 and were qualified "NJ". Only 4,4'-DDD was reported in HQ929DL, at 23 µg/Kg; endosulfan II was reported as 170 U. Since it is not possible to determine which compound is actually present, ESAT changed the results for 4,4'-DDD in sample HQ929DL to 170 U.

Comments: The percent difference (%D) between the dual column quantitation of several positive results was greater than 25%. The laboratory correctly reported the smaller concentration of the two quantitated concentrations and flagged the results "P" as required by the SOW. Alternative analysis may be necessary to confirm peak identity for compounds with a significantly large dual column quantitation percent difference. The following table summarizes sample results.

SAMPLE NUMBER	COMPOUND	PERCENT DIFFERENCE	QUALIFIER
HQ926	delta-BHC	594.1	NJ *
	aldrin	276.9	
	heptachlor epoxide	999.9	
	endosulfan I	536.7	
	4,4'-DDE	31.1	
	endosulfan sulfate	352.3	
	alpha-chlordane	524.6	
HQ929	alpha-BHC	999.9	NJ *
	heptachlor	138.1	
	aldrin	801.4	
	endosulfan II	99.0	
	endosulfan sulfate	999.9	
	methoxychlor	99.9	
	endrin aldehyde	99.6	
	gamma-chlordane	596.7	

ORGANIC RAS PESTICIDE/AROCLOR DATA QUALITY ASSURANCE REVIEW

SAMPLE NUMBER	COMPOUND	PERCENT DIFFERENCE	QUALIFIER
HQ929DL	aldrin	337.9	NJ
	endosulfan sulfate	393.2	
HR484	aldrin	53.9	NJ
	heptachlor epoxide	999.9	
	4,4'-DDE	45.6	
	4,4'-DDT	88.4	
HR485	heptachlor epoxide	999.9	NJ

* No additional qualifiers were added to sample results previously qualified due to overlapping RT windows.

Comments: Sample HQ929 was analyzed at a 1:5 dilution and a 1:50 dilution due to "high target and non-target analytes," according to the Case Narrative. Results were comparable between the two analyses.

Comments: Sample HR485 was analyzed only at a 1:4 dilution, due to "high target and non-target analytes," according to the Case Narrative.

IX. **Additional Comments or Problems/Resolutions not addressed above.**

PESTICIDE/AROCLOR: None.

REGION VIII

DATA QUALIFIER DEFINITIONS

For the purpose of Data Validation, the following code letters and associated definitions are provided for use by the data validator to summarize the data quality.

GENERAL QUALIFIERS for use with ORGANIC DATA

R - Reported value is "rejected". Resampling or reanalysis may be necessary to verify the presence or absence of the compound.

J - The associated numerical value is an estimated quantity because the Quality Control criteria were not met.

U J - The reported quantitation limit is estimated because Quality Control criteria were not met. Compound was not detected.

N J - Estimated value of a tentatively identified compound.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

Ref: 8ES-MEB

December 11, 1995

MEMORANDUM

SUBJECT: Data validation for Rico Argentine Mine Site, Case #24008, SDG # HR549

FROM: Russ Leclerc RL 12/11/95
Chemist
Program Support Group, Technical Support Team

TO: Greg Oberly
8HWM-SM

The Environmental Services Assistance Team (ESAT) has completed its review of data from the analysis of sixteen water samples for full Contract Laboratory Program (CLP), Routine Analytical Services (RAS) organic analyses with four additional water samples for CLP RAS volatile organic analysis for **Rico Argentine Mine Site, Case 24008**, Sample Delivery Group (SDG) **#HR549**. I have evaluated ESAT's data validation package and agree with ESAT's review. Data in the enclosed package are acceptable with the qualifiers added to the data reports. Please refer to the attached ICF Kaiser data validation report including the narrative summary and comments for a full explanation of the data review findings.

If you have any questions,or if I can be of further assistance, please contact me at 312-6971.

Attachments

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REGION VIII
SUMMARY OF CLP DATA QUALITY ASSURANCE REVIEW
ORGANICS - VOLATILE, SEMIVOLATILE, PESTICIDE/AROCLOR

CASE NO.	SITE NAME		SITE ID/OPERABLE UNIT
24008	Rico Argentine Mine		8ZZ/00
RPM NAME	ESAT TID: 08-9510-703		
Greg Oberley	ESAT WUD: 24		
CONTRACTOR LABORATORY	CONTRACT NO.	SDG NO.	LABORATORY TPO/REGION
Recra Environmental, Inc.	68-D5-0010	HR549	Stevie Wilding/III

Data Reviewer Kristy K. Grove
Review Completion Date 12/07/95

SAMPLE ID	SAMPLE LOCATION	MATRIX	DATE SAMPLED	ANALYSIS
HR475	RA-WSW-03	Water	09/13/95	CLP RAS Organics
HR477	RA-WSW-09	Water	09/13/95	CLP RAS Organics
HR478	RA-SW-91	Water	09/13/95	CLP RAS Volatile Organic
HR549	RA-SW-10	Water	09/11/95	CLP RAS Organics
HR551	RA-SW-11	Water	09/11/95	CLP RAS Organics
HR553	RA-SW-27	Water	09/11/95	CLP RAS Organics
HR554	RA-SW-09	Water	09/11/95	CLP RAS Organics
HR555	RA-SW-08	Water	09/11/95	CLP RAS Organics
HR558	RA-SW-07	Water	09/12/95	CLP RAS Organics
HR560	RA-SW-22	Water	09/11/95	CLP RAS Organics
HR561	RA-SW-04	Water	09/12/95	CLP RAS Organics
HR563	RA-SW-18	Water	09/11/95	CLP RAS Volatile Organic
HR564	RA-SW-06	Water	09/12/95	CLP RAS Organics
HR567	RA-SW-03	Water	09/12/95	CLP RAS Organics
HR570	RA-SW-02	Water	09/12/95	CLP RAS Organics
HR572	RA-SW-20	Water	09/11/95	CLP RAS Volatile Organic
HR574	RA-SW-05	Water	09/12/95	CLP RAS Organics
HR576	RA-SW-19	Water	09/11/95	CLP RAS Volatile Organic
HR577	RA-SW-23	Water	09/12/95	CLP RAS Organics
HR578	RA-SW-01	Water	09/13/95	CLP RAS Organics

Reviewed 12/11/95 KKG

DATA QUALITY STATEMENT*

( ) Data are ACCEPTABLE according to EPA Functional Guidelines with no qualifiers (flags) added by the reviewer.

( ) Data are UNACCEPTABLE according to EPA Functional Guidelines.

(X) Data are acceptable with QUALIFICATIONS noted in review.

Telephone/Communication Logs Enclosed? Yes ___ No _X_

TPO Attention Required? Yes _X_ No ___ If yes, list the items that require attention:

Volatile organic technical holding time violations, Section II.

* Please see Data Qualifier Definitions, attached to the end of this report.

REVIEW NARRATIVE SUMMARY

This data package was reviewed according to the EPA document *National Functional Guidelines for Organic Data Review*, February 1994.

Case 24008, SDG HR549, consisted of 16 water samples for full CLP RAS organic analyses with four additional water samples for CLP RAS volatile organic analysis.

Water samples HR482, HR560, and HR577 from Case 24008, SDG HR479 and SDG HR549 were designated rinsate blanks and were used to evaluate sample results. Water samples HR483, HR478, HR572, HR576, and HR563 from Case 24008, SDG HR479 and SDG HR549 were designated volatile QC blanks and were used to evaluate volatile organic sample results. Results for the rinsate and field blanks not contained in this SDG HR549 are attached to the end of the report.

The laboratory performed the required library search on all non-target sample components. All tentatively identified compounds (TICs) were qualified "NJ" - tentatively identified at an estimated concentration.

The following tables list all data qualifiers added to the data.

SAMPLE NUMBER	VOLATILE COMPOUND	QUALIFIER	REASON FOR QUALIFICATION	REVIEW SECTION
All	benzene, toluene, ethylbenzene, chlorobenzene, styrene, xylenes (total)	UJ	Holding Times	II
HR549, HR551, HR553, HR554, HR561, HR563, HR564, HR567	acetone	UJ	Initial Calibration	IV
HR570, HR560, HR567RE, HR564RE, HR579, HR475, HR477, HR478	2-butanone	UJ	Continuing Calibration	
HR563	chloroform	J	Surrogate Compound Recovery	V
HR567	2-hexanone, 4-methyl-2-pentanone, tetrachloroethene, 1,1,2,2-tetrachloroethane, toluene, chlorobenzene, ethylbenzene, styrene, xylene (total)	UJ	Internal Standard Area	VII
HR558	acetone	10 U	Rinsate Blank Results	VIII

SAMPLE NUMBER	SEMIVOLATILE COMPOUND	QUALIFIER	REASON FOR QUALIFICATION	REVIEW SECTION
HR475, HR477, HR579	4-methylphenol, 4-nitrophenol	UJ	Continuing Calibration	IV

ORGANIC RAS VOLATILE DATA QUALITY ASSURANCE REVIEW

SOW Number OLM03.0
Revision OLM03.1 **RAS ORGANIC DATA COMPLETENESS CHECKLIST**
VOLATILE

Quality Control Summary Package
- P Surrogate Recovery Summary (Form II)
- P MS/MSD Summary (Form III)
- P Method Blank Summary (Form IV)
- P GC/MS Tuning and Mass Calibration (Form V)

Sample Data Package
- P Holding Times (SMO Sample Traffic Reports)
- P Organic Analysis Data Sheets (Form I)
- P Reconstructed Ion Chromatogram(s) (RIC)
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Mass Spectral Library Search for TICs

Standards Data Package
- NR Current List of Laboratory/Instrument Detection Limits
- P Initial Calibration Data (Form VI) for each instrument
- P Continuing Calibration Data (Form VII) for each instrument
- P Internal Standard Area Summary (Form VIII)
- P Volatile Standards RICs
- P Volatile Standards Quantitation Reports

Raw QC Package
- P BFB mass spectra and mass listings

Reagent Blank data
- P Organic Analysis Data Sheets (Form I)
- P RIC or Total Ion Chromatogram
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Library Search for TICs

Matrix Spike/Matrix Spike Duplicate Data
- P Organic Analysis Data Sheets
- P RIC
- P Quantitation Reports
- NR Mass Spectral Data
- NR EPA/NIH Library Search for TICs

KEY: P - Provided in original data package, as required by the SOW
R - Provided as Resubmission
NP - Not provided in original data package or as resubmission
NR - Not required under the SOW
NA - Not applicable to this data package or analysis

ORGANIC FAS VOLATILE DATA QUALITY ASSURANCE REVIEW

I. **DELIVERABLES**

All deliverables were present as specified in the statement of work.

VOLATILE: Yes _X_ No ___

Comments: None.

II. **HOLDING TIMES**

All **CLP-SOW** holding times were met.

VOLATILE: Yes ___ No _X_

Comments: Samples HR563RE, HR564RE, HR567RE, HR579MS, and HR579MSD were analyzed slightly outside of the SOW holding time of 10 days from validated time of sample receipt (VTSR). As stated in the Case Narrative, the reanalyses were within two hours of the SOW holding time. No qualifiers were added for contractual holding time violations.

All **technical** holding times were met.

VOLATILE: Yes ___ No _X_

Comments: All of the samples were analyzed outside the technical holding time of seven days from date of sample collection for aromatic compounds. The following table summarizes technical holding time violations and qualifiers added to the data.

SAMPLE NUMBER	DAYS OUTSIDE LIMITS	COMPOUNDS	QUALIFIERS
HR475, HR477, HR478, HR558, HR561, HR564, HR567, HR570, HR574, HR577, HR579, HR579MS*, HR579MSD*	5	benzene, toluene, ethylbenzene, chlorobenzene, styrene, xylenes (total)	UJ
HR549, HR551, HR553, HR554, HR555, HR560, HR563, HR564RE, HR567RE, HR572, HR576	6		
HR563RE	7		

* No qualifiers were added to QC samples.

III. **BFB PERFORMANCE RESULTS**

The BFB performance results were within the specified control limits. All appropriate BFB results were included.

VOLATILE: Yes X No ___

Comments: None.

IV. **INSTRUMENT CALIBRATIONS: INITIAL AND CONTINUING STANDARDS**

Initial instrument calibrations were performed according to SOW requirements and met the specified control limits listed in the functional guidelines.

VOLATILE: Yes ___ No X

Comments: The laboratory met all the SOW requirements. However, one compound was outside control limits of less than 30% relative standard deviation (%RSD) for the initial calibration. The following table lists the compound, %RSD, associated samples, and qualifiers added to the data.

COMPOUND	%RSD	ASSOCIATED SAMPLES	QUALIFIERS
acetone	32.3	HR549, HR551, HR553, HR554, HR561, HR563, HR564, HR567	UJ

Continuing instrument calibration was performed according to SOW requirements and met specified control limits listed in the functional guidelines.

VOLATILE: Yes ___ No X

Comments: The laboratory met all the SOW requirements. However, when compared to the initial calibration, two compounds were outside control limits of less than 25 percent difference (%D) for the continuing calibration. Listed below are the compounds, %D, associated samples, and qualifiers added to the data.

COMPOUND	%DIFFERENCE	ASSOCIATED SAMPLES	QUALIFIERS
acetone	27.4	HR579MS, HR579MSD	None*
2-butanone	32.6	HR570, HR560, HR567RE, HR564RE, HR579, HR475, HR477, HR478	UJ

* QC samples were not qualified.

V. **SURROGATE COMPOUND RECOVERY**

Surrogate compound recovery analysis was performed according to SOW requirements and results met specified control limits.

VOLATILE: Yes ___ No X

Comments: Three samples were outside control limits for percent surrogate recovery. Listed below are the sample numbers, surrogate compound, quality control limits for surrogate recovery (%R), and the qualifiers added to the data. The samples were reanalyzed as required by the SOW and surrogate compound recoveries were within quality control limits.

SAMPLE NUMBER	SURROGATE COMPOUND	%R	QC LIMITS	ASSOCIATED COMPOUNDS	QUALIFIERS
HR563	1,2-dichloroethane-d_4	118	76 - 114	chloroform	J
HR564		116		None*	None*
HR567		121			

* Sample results did not contain any reported target compounds.

VI. **MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

Matrix Spike/Matrix Spike Duplicate analysis was performed according to SOW requirements and results met recommended recovery and precision limits.

VOLATILE: Yes X No ___

Comments: None.

VII. **INTERNAL STANDARD AREA**

Internal standard area analysis was performed according to SOW requirements and results met specified control limits.

VOLATILE: Yes ___ No X

Comments: One sample had an internal standard area outside quality control limits of -50 to +100% of the associated continuing calibration internal standard area as listed in the following table.

SAMPLE	INTERNAL STANDARD	INTERNAL STANDARD AREA	CONTROL LIMITS	ASSOCIATED COMPOUNDS	QUALIFIER
HR567	chlorobenzene-d_5	73883	74596 - 298382	2-hexanone, 4-methyl-2-pentanone, tetrachloroethene, 1,1,2,2-tetrachloroethane, toluene, chlorobenzene, ethylbenzene, styrene, xylene (total)	UJ*

* No additional qualifiers were added to compounds previously qualified for holding time violations.

VIII. **LABORATORY BLANK ANALYSIS RESULTS**

The laboratory blank analysis was performed according to SOW requirements and met specified control limits.

VOLATILE: Yes _X_ No ___

Comments: The preparation and holding blank results were reviewed and met SOW requirements.

Comments: Chloroform and acetone were detected in the rinsate and volatile field QC blanks. Chloroform was not detected in the associated water samples. Acetone was detected in one associated water sample as listed in the following table. Quantitation limits in the associated samples were raised in accordance with the rules set forth in the EPA document *National Functional Guidelines for Organic Data Review*, February 1994.

BLANK ID	DATE COLLECTED	CONTAMINANT	CONCENTRATION FOUND IN BLANK	SAMPLE CRQL	ASSOCIATED SAMPLES	CONCENTRATION FOUND IN SAMPLE	QUALIFIER/ ADJUSTMENT
HR577 Rinsate	09/12/95	acetone	20 µg/L	10	HR558	6 µg/L	10 U

IX. **SAMPLE RESULTS**

The sample results were reviewed and all compound identifications were acceptable and met SOW requirements.

VOLATILE: Yes _X_ No ___

Comments: Samples HR563, HR564, and HR567 were reanalyzed due to high surrogate compound recovery. The raw data was review and the results between the analyses were comparable.

X. **Additional Comments or Problems/Resolutions not addressed above.**

VOLATILE: None.

ORGANIC RAS SEMIVOLATILE DATA QUALITY ASSURANCE REVIEW

SOW Number OLM03.0
Revision OLM03.1 **RAS ORGANIC DATA COMPLETENESS CHECKLIST**
SEMIVOLATILE

Quality Control Summary Package
- P Surrogate Recovery Summary (Form II)
- P MS/MSD Summary (Form III)
- P Method Blank Summary (Form IV)
- P GC/MS Tuning and Mass Calibration (Form V)

Sample Data Package
- P Holding Times (SMO Sample Traffic Reports)
- P Organic Analysis Data Sheets (Form I)
- P Reconstructed Ion Chromatogram(s) (RIC)
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Mass Spectral Library Search for TICs

Standards Data Package
- NR Current List of Laboratory/Instrument Detection Limits
- P Initial Calibration Data (Form VI) for each instrument
- P Continuing Calibration Data (Form VII) for each instrument
- P Internal Standard Area Summary (Form VIII)
- P Semivolatile Standards RICs
- P Semivolatile Standards Quantitation Reports

Raw QC Package
- P DFTPP mass spectra and mass listings

Reagent Blank data
- P Organic Analysis Data Sheets (Form I)
- P RIC or Total Ion Chromatogram
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Library Search for TICs

Matrix Spike/Matrix Spike Duplicate Data
- P Organic Analysis Data Sheets
- P RIC
- P Quantitation Reports
- NR Mass Spectral Data
- NR EPA/NIH Library Search for TICs

KEY: P - Provided in original data package, as required by the SOW
R - Provided as Resubmission
NP - Not provided in original data package or as resubmission
NR - Not required under the SOW
NA - Not applicable to this data package or analysis

ORGANIC RAS SEMIVOLATILE DATA QUALITY ASSURANCE REVIEW

I. **DELIVERABLES**

All deliverables were present as specified in the statement of work.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

II. **HOLDING TIMES**

All CLP-SOW holding times were met.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

All technical holding times were met.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

III. **DFTPP PERFORMANCE RESULTS**

The DFTPP performance results were within the specified control limits. All appropriate DFTPP results were included.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

IV. **INSTRUMENT CALIBRATIONS: INITIAL AND CONTINUING STANDARDS**

Initial instrument calibrations were performed according to SOW requirements and met the specified control limits listed in the functional guidelines.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

Continuing instrument calibration was performed according to SOW requirements and met specified control limits listed in the functional guidelines.

SEMIVOLATILE: Yes ___ No _X_

Comments: The laboratory met the SOW requirements. However, when compared to the initial calibration, two compounds were outside control limits of less than 25 percent difference (%D) for the continuing calibration. Listed below are the compounds, %D, associated samples, and qualifiers added to the data.

COMPOUND	%DIFFERENCE	ASSOCIATED SAMPLES	QUALIFIERS
4-methylphenol	26.1	HR475, HR477, HR579	UJ
4-nitrophenol	32.0		

V. **SURROGATE COMPOUND RECOVERY**

Surrogate compound recovery analysis was performed according to SOW requirements and results met specified control limits.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

VI. **MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

Matrix Spike/Matrix Spike Duplicate analysis was performed according to SOW requirements and results met recommended recovery and precision limits.

SEMIVOLATILE: Yes ___ No _X_

Comments: One compound was outside control limits for percent recovery in the MS/MSD analysis of water sample HR579. The following table summarizes QC outliers. Since the percent recovery was high and the compound was not detected in the "unspiked" analysis of sample HR579, no qualifiers were added to the data.

COMPOUND	%R MS	%R MSD	CONTROL LIMITS
4-nitrophenol	82*	77	10 - 80

* Value is outside control limits.

VII. **INTERNAL STANDARD AREA**

Internal standard area analysis was performed according to SOW requirements and results met specified control limits.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

VIII. **LABORATORY BLANK ANALYSIS RESULTS**

The laboratory blank analysis was performed according to SOW requirements and met specified control limits.

SEMIVOLATILE: Yes _X_ No ___

Comments: The extraction and rinsate blank results were reviewed and met SOW requirements.

IX. **SAMPLE RESULTS**

The sample results were reviewed and all compound identifications were acceptable and met SOW requirements.

SEMIVOLATILE: Yes _X_ No ___

Comments: No target compounds were reported in the semivolatile analysis of SDG HR549.

X. **Additional Comments or Problems/Resolutions not addressed above.**

SEMIVOLATILE: None.

ORGANIC RAS PESTICIDE/AROCLOR DATA QUALITY ASSURANCE REVIEW

SOW Number OLM03.0
Revision OLM03.1 **RAS ORGANIC DATA COMPLETENESS CHECKLIST**

PESTICIDE/AROCLOR

Quality Control Summary Package

P Surrogate Recovery Summary (Form II)
P MS/MSD Summary (Form III)
P Method Blank Summary (Form IV)
NR GC/MS Tuning and Mass Calibration (Form V)

Sample Data Package

P Holding Times (SMO Sample Traffic Reports)
P Organic Analysis Data Sheets (Form I)
P GC/EC Chromatograms
P Pesticide Identification Summary for Single Component Analytes (Form X-1) -for positive results only
NA Pesticide Identification Summary for Multicomponent Analytes (Form X-2) -for positive results only

Standards Data Package

NR Current List of Laboratory/Instrument Detection Limits
P Pesticide Initial Calibration of Single Component Analytes (Form VI-1,2)
P Pesticide Initial Calibration of Multicomponent Analytes (Form VI-3)
P Pesticide Analyte Resolution Summary (Form VI-4,5,6,7)
P Pesticide Calibration Verification Summary (Form VII-1,2)
P Pesticide Analytical Sequence (Form VIII)
P Pesticide Florisil Cartridge Check (Form IX-1)
NA Pesticide GPC Calibration (Form IX-2)
P Pesticide/Aroclor Standard Chromatograms and Data System Printouts

Reagent Blank data

P Organic Analysis Data Sheets (Form I)
P GC/EC Chromatograms and Data System Printouts

Matrix Spike/Matrix Spike Duplicate Data

P Organic Analysis Data Sheets
P GC/EC Chromatograms and Data System Printouts

KEY: P - Provided in original data package, as required by the SOW
R - Provided as Resubmission
NP - Not provided in original data package or as resubmission
NR - Not required under the SOW
NA - Not applicable to this data package or analysis

ORGANIC RAS PESTICIDE/AROCLOR DATA QUALITY ASSURANCE REVIEW

I. **DELIVERABLES**

All deliverables were present as specified in the statement of work.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

II. **HOLDING TIMES**

All **CLP-SOW** holding times were met.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

All **technical** holding times were met.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

III. **SURROGATE COMPOUND RECOVERY**

Surrogate compound recovery analysis was performed according to SOW requirements and results met specified control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

IV. **MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

Matrix Spike/Matrix Spike Duplicate analysis was performed according to SOW requirements and results met recommended recovery and precision limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

V. **INTERNAL STANDARD AREA**

Internal standard area analysis was performed according to SOW requirements and results met specified control limits.

PESTICIDE/AROCLOR: Yes ___ No ___ N/A _X_

Comments: None.

VI. **PESTICIDE / AROCLOR STANDARDS CRITERIA**

The pesticide resolution check mixture analysis was performed according to SOW requirements and results met recommended recovery limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The pesticide performance evaluation mixture analysis was performed according to SOW requirements and results met recommended recovery limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The breakdown of 4,4'DDT and of Endrin was less than 20% and the combined breakdown was less than 30%.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The decachlorobiphenyl (DCB) and tetrachloro-m-xylene (TCX) retention time shifts were within the specified control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

In the initial calibration, the single component pesticides showed a percent difference of no more than 20% relative standard deviation (RSD) (no more than 25% RSD for alpha-BHC and delta-BHC) on both columns.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

In the continuing calibrations, the single component pesticides showed a percent difference (%D) of no more than 25% on both columns.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The multi-component target compound analyses were performed according to SOW requirements.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The florisil cartridge lot check analysis was performed according to requirements and all spike compounds were within the specified quality control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The gel permeation chromatography (GPC) check was performed according to requirements and all spike compounds were within the specified quality control limits.

PESTICIDE/AROCLOR: Yes ___ No ___ N/A _X_

Comments: None.

VII. LABORATORY BLANK ANALYSIS RESULTS

The laboratory blank analysis was performed according to SOW requirements and met specified control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: The instrument, extraction, and rinsate blank results were reviewed and met SOW requirements.

VIII. SAMPLE RESULTS

The sample results were reviewed and all compound identifications were acceptable and met SOW requirements.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: No target compounds were reported in the pesticide/Aroclor analysis of SDG HR549.

IX. Additional Comments or Problems/Resolutions not addressed above.

PESTICIDE/AROCLOR: None.

REGION VIII

DATA QUALIFIER DEFINITIONS

For the purpose of Data Validation, the following code letters and associated definitions are provided for use by the data validator to summarize the data quality.

GENERAL QUALIFIERS for use ORGANIC DATA

R - Reported value is "rejected". Resampling or reanalysis may be necessary to verify the presence or absence of the compound.

J - The associated numerical value is an estimated quantity because the Quality Control criteria were not met.

U J - The reported quantitation limit is estimated because Quality Control criteria were not met. Compound was not detected.

N J - Estimated value of a tentatively identified compound.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-27

HR553

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549 Dup. SW-11

Matrix: (soil/water) WATER Lab Sample ID: B5020503

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FQ951

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR553

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020503

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FQ951

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FRC 11/5/95

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA SW-27

HR553

Dub SW-11

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020503

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK491

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-27

HR553

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020503

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK491

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
RA-SW-27

HR553

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020503

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK491

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
R4-SW-27

HR553

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020503

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/14/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/18/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HQ924

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020603

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ842

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 15 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN COLUMN BLEED	11.68	8	BJ
2. 556672	Cyclotetrasiloxane, octameth	15.73	25	BJN

000081

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
KA-WSO-08

HQ929

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021203

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ926

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: not dec. 2 Date Analyzed: 09/23/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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	12	~~B~~ U	UJ
67-64-1	Acetone	150		
75-15-0	Carbon Disulfide	6	J	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
78-93-3	2-Butanone	110		
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-02-6	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	10	U	
10061-01-5	trans-1,3-Dichloropropene	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	UJ
591-78-6	2-Hexanone	14		J
127-18-4	Tetrachloroethene	10	U	UJ
79-34-5	1,1,2,2-Tetrachloroethane	10	U	UJ
108-88-3	Toluene	1	J	J
108-90-7	Chlorobenzene	10	U	UJ
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

000060

FORM I VOA OLM03.0

12/04/95

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HQ929

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021203

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ926

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: not dec. 2 Date Analyzed: 09/23/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1. 556672	Cyclotetrasiloxane, octameth	15.72	4	BJN	R
2.	UNKNOWN	16.60	2	J	NJ

000061

FORM I VOA-TIC OLM03.0

12/04/95 mm

See previous

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA - WSO - 08

HQ929RE

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021203RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ927

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: not dec. 2 Date Analyzed: 09/23/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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	10	~~BJ~~ U	UJ
67-64-1	Acetone	78		
75-15-0	Carbon Disulfide	4	J	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
78-93-3	2-Butanone	78		
71-55-6	1,1,1-Trichloroethane	10	U	UJ
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-02-6	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	10	U	
10061-01-5	trans-1,3-Dichloropropene	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	7	J	J
127-18-4	Tetrachloroethene	10	U	UJ
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

12/04/95

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HQ929RE

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021203RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ927

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: not dec. 2 Date Analyzed: 09/23/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	16.62	3	J

NJ

12/04/95

Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HQ929RE

SDG Number: HR481

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)
17.87		Alkane Type 4	39

NJ

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA
ENVIRONMENTAL
INC.

12/04/95 mr

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSO-01

HR581

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK638

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 25 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 3.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	440	U	
111-44-4	bis(2-Chloroethyl)Ether	440	U	
95-57-8	2-Chlorophenol	440	U	
541-73-1	1,3-Dichlorobenzene	440	U	
106-46-7	1,4-Dichlorobenzene	440	U	
95-50-1	1,2-Dichlorobenzene	440	U	
95-48-7	2-Methylphenol	440	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	440	U	UJ
106-44-5	4-Methylphenol	440	U	
621-64-7	N-Nitroso-Di-n-Propylamine	440	U	
67-72-1	Hexachloroethane	440	U	
98-95-3	Nitrobenzene	440	U	
78-59-1	Isophorone	440	U	
88-75-5	2-Nitrophenol	440	U	
105-67-9	2,4-Dimethylphenol	440	U	
111-91-1	bis(2-Chloroethoxy)Methane	440	U	
120-83-2	2,4-Dichlorophenol	440	U	
120-82-1	1,2,4-Trichlorobenzene	440	U	
91-20-3	Naphthalene	440	U	
106-47-8	4-Chloroaniline	440	U	
87-68-3	Hexachlorobutadiene	440	U	UJ
59-50-7	4-Chloro-3-Methylphenol	440	U	
91-57-6	2-Methylnaphthalene	440	U	
77-47-4	Hexachlorocyclopentadiene	440	U	
88-06-2	2,4,6-Trichlorophenol	440	U	
95-95-4	2,4,5-Trichlorophenol	1100	U	
91-58-7	2-Chloronaphthalene	440	U	
88-74-4	2-Nitroaniline	1100	U	
131-11-3	Dimethyl Phthalate	440	U	
208-96-8	Acenaphthylene	440	U	
606-20-2	2,6-Dinitrotoluene	440	U	
99-09-2	3-Nitroaniline	1100	U	
83-32-9	Acenaphthene	440	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSO-01
HR581

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK538

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 25 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 3.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1100	U
100-02-7	4-Nitrophenol	1100	U
132-64-9	Dibenzofuran	440	U
121-14-2	2,4-Dinitrotoluene	440	U
84-66-2	Diethylphthalate	440	U
7005-72-3	4-Chlorophenyl-phenylether	440	U
86-73-7	Fluorene	440	U
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-Methylphenol	1100	U
86-30-6	N-Nitrosodiphenylamine (1)	440	U
101-55-3	4-Bromophenyl-phenylether	440	U
118-74-1	Hexachlorobenzene	440	U
87-86-5	Pentachlorophenol	1100	U
85-01-8	Phenanthrene	24	J
120-12-7	Anthracene	440	U
86-74-8	Carbazole	440	U
84-74-2	Di-n-Butylphthalate	24	J
206-44-0	Fluoranthene	30	J
129-00-0	Pyrene	25	J
85-68-7	Butylbenzylphthalate	440	U
91-94-1	3,3'-Dichlorobenzidine	440	U
56-55-3	Benzo(a)Anthracene	440	U
218-01-9	Chrysene	440	U
117-81-7	bis(2-Ethylhexyl)Phthalate	59	J
117-84-0	Di-n-Octyl Phthalate	440	U
205-99-2	Benzo(b)Fluoranthene	440	U
207-08-9	Benzo(k)Fluoranthene	440	U
50-32-8	Benzo(a)Pyrene	440	U
193-39-5	Indeno(1,2,3-cd)Pyrene	440	U
53-70-3	Dibenz(a,h)Anthracene	440	U
191-24-2	Benzo(g,h,i)Perylene	440	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR581

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK638

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 25 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 3.6

Number TICs found: 17

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	12.38	200	J	NJ
2.	UNKNOWN ACID	12.43	180	J	NJ
3.	UNKNOWN	12.80	1700	J	NJ
4.	UNKNOWN	13.90	790	J	NJ
5.	UNKNOWN	15.90	94	J	
6.	UNKNOWN ACID	18.67	110	J	
7. 57103	Hexadecanoic acid	25.42	440	JN	
8.	UNKNOWN	30.10	590	BJ	R
9.	UNKNOWN	30.38	140	J	NJ
10.	UNKNOWN	30.90	220	J	
11.	UNKNOWN	31.15	380	J	
12.	UNKNOWN	31.65	480	J	
13.	UNKNOWN	31.88	100	J	
14.	UNKNOWN	32.38	250	J	
15.	UNKNOWN	32.60	650	J	
16.	UNKNOWN	33.07	1200	J	
17.	UNKNOWN	34.55	460	J	

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HR581

SDG Number: HR481

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)
22.63		ALKANE TYPE 4	110
26.67		ALKANE TYPE 4	160
27.57		ALKANE TYPE 4	360
~~28437~~ 28.43		ALKANE TYPE 4	2500
29.25		ALKANE TYPE 4	350
30.05		ALKANE TYPE 4	2900
30.82		ALKANE TYPE 4	680
31.55		ALKANE TYPE 4	1400
32.25		ALKANE TYPE 4	130
32.95		ALKANE TYPE 4	610
33.63		ALKANE TYPE 4	750
34.40		ALKANE TYPE 4	500
36.27		ALKANE TYPE 4	130

NJ

NJ

NJ

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

12/04/95

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WS0-02

HR582

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021005

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GK639

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 38 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	530	U	
111-44-4	bis(2-Chloroethyl)Ether	530	U	
95-57-8	2-Chlorophenol	530	U	
541-73-1	1,3-Dichlorobenzene	530	U	
106-46-7	1,4-Dichlorobenzene	530	U	
95-50-1	1,2-Dichlorobenzene	530	U	
95-48-7	2-Methylphenol	530	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	530	U	UJ
106-44-5	4-Methylphenol	530	U	
621-64-7	N-Nitroso-Di-n-Propylamine	530	U	
67-72-1	Hexachloroethane	530	U	
98-95-3	Nitrobenzene	530	U	
78-59-1	Isophorone	530	U	
88-75-5	2-Nitrophenol	530	U	
105-67-9	2,4-Dimethylphenol	530	U	
111-91-1	bis(2-Chloroethoxy)Methane	530	U	
120-83-2	2,4-Dichlorophenol	530	U	
120-82-1	1,2,4-Trichlorobenzene	530	U	
91-20-3	Naphthalene	530	U	
106-47-8	4-Chloroaniline	530	U	
87-68-3	Hexachlorobutadiene	530	U	UJ
59-50-7	4-Chloro-3-Methylphenol	530	U	
91-57-6	2-Methylnaphthalene	530	U	
77-47-4	Hexachlorocyclopentadiene	530	U	
88-06-2	2,4,6-Trichlorophenol	530	U	
95-95-4	2,4,5-Trichlorophenol	1300	U	
91-58-7	2-Chloronaphthalene	530	U	
88-74-4	2-Nitroaniline	1300	U	
131-11-3	Dimethyl Phthalate	530	U	
208-96-8	Acenaphthylene	530	U	
606-20-2	2,6-Dinitrotoluene	530	U	
99-09-2	3-Nitroaniline	1300	U	
83-32-9	Acenaphthene	530	U	

12/04/95

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WS0-02

HR582

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021005

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GK639

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 38 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1300	U
100-02-7	4-Nitrophenol	1300	U
132-64-9	Dibenzofuran	530	U
121-14-2	2,4-Dinitrotoluene	530	U
84-66-2	Diethylphthalate	530	U
7005-72-3	4-Chlorophenyl-phenylether	530	U
86-73-7	Fluorene	530	U
100-01-6	4-Nitroaniline	1300	U
534-52-1	4,6-Dinitro-2-Methylphenol	1300	U
86-30-6	N-Nitrosodiphenylamine (1)	530	U
101-55-3	4-Bromophenyl-phenylether	530	U
118-74-1	Hexachlorobenzene	530	U
87-86-5	Pentachlorophenol	1300	U
85-01-8	Phenanthrene	530	U
120-12-7	Anthracene	530	U
86-74-8	Carbazole	530	U
84-74-2	Di-n-Butylphthalate	33	J
206-44-0	Fluoranthene	530	U
129-00-0	Pyrene	530	U
85-68-7	Butylbenzylphthalate	530	U
91-94-1	3,3'-Dichlorobenzidine	530	U
56-55-3	Benzo(a)Anthracene	530	U
218-01-9	Chrysene	530	U
117-81-7	bis(2-Ethylhexyl)Phthalate	110	J
117-84-0	Di-n-Octyl Phthalate	530	U
205-99-2	Benzo(b)Fluoranthene	530	U
207-08-9	Benzo(k)Fluoranthene	530	U
50-32-8	Benzo(a)Pyrene	530	U
193-39-5	Indeno(1,2,3-cd)Pyrene	530	U
53-70-3	Dibenz(a,h)Anthracene	530	U
191-24-2	Benzo(g,h,i)Perylene	530	U

(1) - Cannot be separated from Diphenylamine

12/04/95

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR582

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021005

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GK639

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 38 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.9

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	12.78	1400	J	NJ
2.	UNKNOWN	13.90	540	J	NJ
3.	UNKNOWN	30.12	470	BJ	R

12/04/95 mu

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HR582

SDG Number: HR481

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)	
28.43		ALKANE TYPE 4	360	NJ
30.05		ALKANE TYPE 4	400	NJ
31.55		ALKANE TYPE 4	140	NJ

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

12/04/95 [illegible]

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSO-03

HR566

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020611

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK584

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 19 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 2.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	410	U	
111-44-4	bis(2-Chloroethyl)Ether	410	U	
95-57-8	2-Chlorophenol	410	U	
541-73-1	1,3-Dichlorobenzene	410	U	
106-46-7	1,4-Dichlorobenzene	410	U	
95-50-1	1,2-Dichlorobenzene	410	U	
95-48-7	2-Methylphenol	410	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	410	U	uJ
106-44-5	4-Methylphenol	410	U	
621-64-7	N-Nitroso-Di-n-Propylamine	410	U	uJ
67-72-1	Hexachloroethane	410	U	
98-95-3	Nitrobenzene	410	U	
78-59-1	Isophorone	410	U	
88-75-5	2-Nitrophenol	410	U	
105-67-9	2,4-Dimethylphenol	410	U	
111-91-1	bis(2-Chloroethoxy)Methane	410	U	
120-83-2	2,4-Dichlorophenol	410	U	
120-82-1	1,2,4-Trichlorobenzene	410	U	
91-20-3	Naphthalene	410	U	
106-47-8	4-Chloroaniline	410	U	
87-68-3	Hexachlorobutadiene	410	U	
59-50-7	4-Chloro-3-Methylphenol	410	U	
91-57-6	2-Methylnaphthalene	410	U	
77-47-4	Hexachlorocyclopentadiene	410	U	
88-06-2	2,4,6-Trichlorophenol	410	U	
95-95-4	2,4,5-Trichlorophenol	1000	U	
91-58-7	2-Chloronaphthalene	410	U	
88-74-4	2-Nitroaniline	1000	U	
131-11-3	Dimethyl Phthalate	410	U	
208-96-8	Acenaphthylene	410	U	
606-20-2	2,6-Dinitrotoluene	410	U	
99-09-2	3-Nitroaniline	1000	U	
83-32-9	Acenaphthene	410	U	

000810

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSO-03

HR566

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020611

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK584

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 19 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 2.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-Methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-Butylphthalate	25	J
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	U
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	410	U
56-55-3	Benzo(a)Anthracene	410	U
218-01-9	Chrysene	410	U
117-81-7	bis(2-Ethylhexyl)Phthalate	32	J
117-84-0	Di-n-Octyl Phthalate	410	U
205-99-2	Benzo(b)Fluoranthene	410	U
207-08-9	Benzo(k)Fluoranthene	410	U
50-32-8	Benzo(a)Pyrene	410	U
193-39-5	Indeno(1,2,3-cd)Pyrene	410	U
53-70-3	Dibenz(a,h)Anthracene	410	U
191-24-2	Benzo(g,h,i)Perylene	410	U

(1) - Cannot be separated from Diphenylamine

000811

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR566

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020611

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK584

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 19 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 2.0

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	14.08	130	J	NJ
2.	UNKNOWN	14.13	360	J	
3. 57103	Hexadecanoic acid	25.62	88	JN	
4. 10544500	Sulfur, mol. (S8)	26.52	17000	JN	
5.	UNKNOWN	30.32	350	BJ	
6.	UNKNOWN	31.37	140	J	NJ

RKC 9/22/95

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HR566

SDG Number: HQ922

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)
27.77		ALKANE TYPE 4	230
28.63		ALKANE TYPE 4	1400
29.45		ALKANE TYPE 4	250
30.25		ALKANE TYPE 4	1600
31.02		ALKANE TYPE 4	140
31.75		ALKANE TYPE 4	610
33.13		ALKANE TYPE 4	200
33.35		ALKANE TYPE 4	82

NJ

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

LRC 11/27/95

RECRA ENVIRONMENTAL INC.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA - WSO-04

HR573

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020615

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK516

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 19 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/18/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	410	U
111-44-4	bis(2-Chloroethyl)Ether	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1,3-Dichlorobenzene	410	U
106-46-7	1,4-Dichlorobenzene	410	U
95-50-1	1,2-Dichlorobenzene	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	2,2'-oxybis(1-Chloropropane)	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-Di-n-Propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
111-91-1	bis(2-Chloroethoxy)Methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
120-82-1	1,2,4-Trichlorobenzene	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-Methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	1000	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethyl Phthalate	410	U
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene	410	U
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	410	U

RKG 11/27/95

000012

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WS0-04

HR573

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020615

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK516

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 19 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/18/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-Methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	39	J
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-Butylphthalate	33	J
206-44-0	Fluoranthene	64	J
129-00-0	Pyrene	55	J
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	410	U
56-55-3	Benzo(a)Anthracene	25	J
218-01-9	Chrysene	31	J
117-81-7	bis(2-Ethylhexyl)Phthalate	37	J
117-84-0	Di-n-Octyl Phthalate	410	U
205-99-2	Benzo(b)Fluoranthene	23	J
207-08-9	Benzo(k)Fluoranthene	410	U
50-32-8	Benzo(a)Pyrene	25	J
193-39-5	Indeno(1,2,3-cd)Pyrene	410	U
53-70-3	Dibenz(a,h)Anthracene	410	U
191-24-2	Benzo(g,h,i)Perylene	410	U

(1) - Cannot be separated from Diphenylamine

000013

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR573

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020615

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK516

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 19 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/18/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	12.98	470	J
2.	UNKNOWN ACID	18.87	110	J
3.	UNKNOWN	21.02	170	J
4.	UNKNOWN	30.30	620	BJ

NJ
R

LKG 11/27/95

000914

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HR573

SDG Number: HQ922

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)
27.77		ALKANE TYPE 4	120
28.63		ALKANE TYPE 4	210
29.47		ALKANE TYPE 4	130
30.25		ALKANE TYPE 4	320
31.75		ALKANE TYPE 4	290
32.45		ALKANE TYPE 4	100
33.13		ALKANE TYPE 4	110
34.65		ALKANE TYPE 4	90

N 5

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

13

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSO-05

HQ922

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020601

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK578

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 13 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)Ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
95-50-1	1,2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	2,2'-oxybis(1-Chloropropane)	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-Di-n-Propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
111-91-1	bis(2-Chloroethoxy)Methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-Methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	950	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	950	U
131-11-3	Dimethyl Phthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U
99-09-2	3-Nitroaniline	950	U
83-32-9	Acenaphthene	380	U

UJ

000451

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSO-05
HQ922

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020601

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK578

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 13 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	950	U
100-02-7	4-Nitrophenol	950	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	950	U
534-52-1	4,6-Dinitro-2-Methylphenol	950	U
86-30-6	N-Nitrosodiphenylamine (1)	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	950	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
86-74-8	Carbazole	380	U
84-74-2	Di-n-Butylphthalate	380	U
206-44-0	Fluoranthene	20	J
129-00-0	Pyrene	20	J
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	380	U
56-55-3	Benzo(a)Anthracene	380	U
218-01-9	Chrysene	24	J
117-81-7	bis(2-Ethylhexyl)Phthalate	250	J
117-84-0	Di-n-Octyl Phthalate	42	J
205-99-2	Benzo(b)Fluoranthene	380	U
207-08-9	Benzo(k)Fluoranthene	380	U
50-32-8	Benzo(a)Pyrene	380	U
193-39-5	Indeno(1,2,3-cd)Pyrene	380	U
53-70-3	Dibenz(a,h)Anthracene	380	U
191-24-2	Benzo(g,h,i)Perylene	380	U

(1) - Cannot be separated from Diphenylamine

FLC 10/27/95

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HQ922

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020601

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK578

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 13 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	12.57	150	J
2.	UNKNOWN	13.00	900	J
3.	UNKNOWN	14.08	340	J
4.	UNKNOWN	33.22	280	J

NJ

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HQ922

SDG Number: HQ922

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)
20.47		ALKANE TYPE 4	78
22.25		ALKANE TYPE 4	79
22.83		ALKANE TYPE 4	300
22.88		ALKANE TYPE 4	410
23.92		ALKANE TYPE 4	170
24.03		ALKANE TYPE 4	240
24.88		ALKANE TYPE 4	130
24.95		ALKANE TYPE 4	200
25.93		ALKANE TYPE 4	180
26.87		ALKANE TYPE 4	210
27.77		ALKANE TYPE 4	240
28.63		ALKANE TYPE 4	460
29.47		ALKANE TYPE 4	380
30.25		ALKANE TYPE 4	620
31.75		ALKANE TYPE 4	580
33.15		ALKANE TYPE 4	540

N J

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSO-06

HQ923

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020602

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK634

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 20 decanted: (Y/N) N Date Extracted: 09/21/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 1.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	150	J	
111-44-4	bis(2-Chloroethyl)Ether	410	U	
95-57-8	2-Chlorophenol	410	U	
541-73-1	1,3-Dichlorobenzene	410	U	
106-46-7	1,4-Dichlorobenzene	410	U	
95-50-1	1,2-Dichlorobenzene	410	U	
95-48-7	2-Methylphenol	410	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	410	U	UJ
106-44-5	4-Methylphenol	410	U	
621-64-7	N-Nitroso-Di-n-Propylamine	410	U	
67-72-1	Hexachloroethane	410	U	
98-95-3	Nitrobenzene	410	U	
78-59-1	Isophorone	410	U	
88-75-5	2-Nitrophenol	410	U	
105-67-9	2,4-Dimethylphenol	410	U	
111-91-1	bis(2-Chloroethoxy)Methane	410	U	
120-83-2	2,4-Dichlorophenol	410	U	
120-82-1	1,2,4-Trichlorobenzene	410	U	
91-20-3	Naphthalene	410	U	
106-47-8	4-Chloroaniline	410	U	
87-68-3	Hexachlorobutadiene	410	U	UJ
59-50-7	4-Chloro-3-Methylphenol	410	U	
91-57-6	2-Methylnaphthalene	410	U	
77-47-4	Hexachlorocyclopentadiene	410	U	
88-06-2	2,4,6-Trichlorophenol	410	U	
95-95-4	2,4,5-Trichlorophenol	1000	U	
91-58-7	2-Chloronaphthalene	410	U	
88-74-4	2-Nitroaniline	1000	U	
131-11-3	Dimethyl Phthalate	410	U	
208-96-8	Acenaphthylene	410	U	
606-20-2	2,6-Dinitrotoluene	410	U	
99-09-2	3-Nitroaniline	1000	U	
83-32-9	Acenaphthene	410	U	

000488

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
KA-WSO-06

HQ923

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: 35020602

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK634

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 20 decanted: (Y/N) N Date Extracted: 09/21/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 1.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-Methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-Butylphthalate	410 ~~72~~	BJ
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	U
85-68-7	Butylbenzylphthalate	410 ~~25~~	BJ
91-94-1	3,3'-Dichlorobenzidine	410	U
56-55-3	Benzo(a)Anthracene	410	U
218-01-9	Chrysene	410	U
117-81-7	bis(2-Ethylhexyl)Phthalate	410 ~~55~~	BJ
117-84-0	Di-n-Octyl Phthalate	410	U
205-99-2	Benzo(b)Fluoranthene	410	U
207-08-9	Benzo(k)Fluoranthene	410	U
50-32-8	Benzo(a)Pyrene	410	U
193-39-5	Indeno(1,2,3-cd)Pyrene	410	U
53-70-3	Dibenz(a,h)Anthracene	410	U
191-24-2	Benzo(g,h,i)Perylene	410	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HQ923

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020602

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK634

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 20 decanted: (Y/N) N Date Extracted: 09/21/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 1.9

Number TICs found: 21

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	12.17	810	J
2. 100527	Benzaldehyde	12.32	1100	JN
3.	UNKNOWN	12.45	95	J
4.	UNKNOWN	13.08	180	J
5.	UNKNOWN	13.92	260	J
6.	UNKNOWN	14.27	120	J
7.	UNKNOWN	15.90	260	J
8.	UNKNOWN ACID	18.67	84	J
9. 143077	Dodecanoic acid	21.10	2700	JN
10. 57103	Hexadecanoic acid	25.43	1700	JN
11. 10544500	Sulfur, mol.(S8)	26.32	25000	JN
12. 57114	Octadecanoic acid	27.30	400	JN
13.	UNKNOWN	28.13	280	J
14.	UNKNOWN	29.17	86	J
15.	UNKNOWN HEXANEDIOIC ACID ISO	29.35	3500	J
16.	UNKNOWN	30.12	1000	J
17.	UNKNOWN	31.68	110	J
18.	UNKNOWN	32.60	190	J
19.	UNKNOWN	33.07	2300	J
20.	UNKNOWN	33.53	190	J
21.	UNKNOWN	39.10	340	J

NJ

NJ

LC 11/27/95

000490

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HQ923

SDG Number: HQ922

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)	
27.57		ALKANE TYPE 4	150	NJ
28.43		ALKANE TYPE 4	200	NJ
30.05		ALKANE TYPE 4	320	R
30.80		ALKANE TYPE 4	170	R
31.55		ALKANE TYPE 4	640	R
32.25		ALKANE TYPE 4	180	NJ
32.85		ALKANE TYPE 4	150	
32.93		ALKANE TYPE 4	1800	
33.62		ALKANE TYPE 4	200	
34.40		ALKANE TYPE 4	1700	
36.27		ALKANE TYPE 4	260	

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RLC 11/27/95

RECRA ENVIRONMENTAL INC.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
KA-LUS0-07

HQ924

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020603

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK628

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 15 decanted: (Y/N) N Date Extracted: 09/21/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/23/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 2.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	2,2'-oxybis(1-Chloropropane)	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-Di-n-Propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
111-91-1	bis(2-Chloroethoxy)Methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	980	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	980	U
131-11-3	Dimethyl Phthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U
99-09-2	3-Nitroaniline	980	U
83-32-9	Acenaphthene	390	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSO-07

HQ924

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020603

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK628

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 15 decanted: (Y/N) N Date Extracted: 09/21/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/23/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 2.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	980	U
100-02-7	4-Nitrophenol	980	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	980	U
534-52-1	4,6-Dinitro-2-Methylphenol	980	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	980	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
86-74-8	Carbazole	390	U
84-74-2	Di-n-Butylphthalate	390 ~~31~~	~~B~~ U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390 ~~23~~	~~B~~ U
91-94-1	3,3'-Dichlorobenzidine	390	U
56-55-3	Benzo(a)Anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)Phthalate	390 ~~27~~	~~B~~ U
117-84-0	Di-n-Octyl Phthalate	390	U
205-99-2	Benzo(b)Fluoranthene	390	U
207-08-9	Benzo(k)Fluoranthene	390	U
50-32-8	Benzo(a)Pyrene	390	U
193-39-5	Indeno(1,2,3-cd)Pyrene	390	U
53-70-3	Dibenz(a,h)Anthracene	390	U
191-24-2	Benzo(g,h,i)Perylene	390	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HQ924

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020603

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK628

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 15 decanted: (Y/N) N Date Extracted: 09/21/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/23/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 2.8

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	12.75	240	BJ	R
2.	UNKNOWN	13.90	110	J	NJ
3. 57103	Hexadecanoic acid	25.40	180	JN	NJ
4.	UNKNOWN HEXANEDIOIC ACID ISO	29.38	12000	J	R
5.	UNKNOWN	30.10	790	J	NJ

KKC 11/27/95

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HQ924

SDG Number: HQ922

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)	
28.43		ALKANE TYPE 4	290	NJ
30.05		ALKANE TYPE 4	390	R
31.55		ALKANE TYPE 4	170	R

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

KKG 11/27/95

RECRA ENVIRONMENTAL INC.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSC-08

HQ929

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: 35021203

Sample wt/vol: 1.0 (g/mL) G Lab File ID: GK644

Level: (low/med) MED Date Received: 09/16/95

% Moisture: 2 decanted: (Y/N) N Date Extracted: 09/20/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 2.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	790	J	
111-44-4	bis(2-Chloroethyl)Ether	10000	U	
95-57-8	2-Chlorophenol	10000	U	
541-73-1	1,3-Dichlorobenzene	10000	U	
106-46-7	1,4-Dichlorobenzene	10000	U	
95-50-1	1,2-Dichlorobenzene	10000	U	
95-48-7	2-Methylphenol	10000	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	10000	U	UJ
106-44-5	4-Methylphenol	10000	U	
621-64-7	N-Nitroso-Di-n-Propylamine	10000	U	
67-72-1	Hexachloroethane	10000	U	
98-95-3	Nitrobenzene	10000	U	
78-59-1	Isophorone	10000	U	
88-75-5	2-Nitrophenol	10000	U	
105-67-9	2,4-Dimethylphenol	10000	U	
111-91-1	bis(2-Chloroethoxy)Methane	10000	U	
120-83-2	2,4-Dichlorophenol	10000	U	
120-82-1	1,2,4-Trichlorobenzene	10000	U	
91-20-3	Naphthalene	10000	U	
106-47-8	4-Chloroaniline	10000	U	
87-68-3	Hexachlorobutadiene	10000	U	UJ
59-50-7	4-Chloro-3-Methylphenol	10000	U	
91-57-6	2-Methylnaphthalene	10000	U	
77-47-4	Hexachlorocyclopentadiene	10000	U	
88-06-2	2,4,6-Trichlorophenol	10000	U	
95-95-4	2,4,5-Trichlorophenol	26000	U	
91-58-7	2-Chloronaphthalene	10000	U	
88-74-4	2-Nitroaniline	26000	U	
131-11-3	Dimethyl Phthalate	10000	U	
208-96-8	Acenaphthylene	10000	U	
606-20-2	2,6-Dinitrotoluene	10000	U	
99-09-2	3-Nitroaniline	26000	U	
83-32-9	Acenaphthene	10000	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
A7-WS0-08

HQ929

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021203

Sample wt/vol: 1.0 (g/mL) G Lab File ID: GK644

Level: (low/med) MED Date Received: 09/16/95

% Moisture: 2 decanted: (Y/N) N Date Extracted: 09/20/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 2.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	26000	U
100-02-7	4-Nitrophenol	26000	U
132-64-9	Dibenzofuran	10000	U
121-14-2	2,4-Dinitrotoluene	10000	U
84-66-2	Diethylphthalate	10000	U
7005-72-3	4-Chlorophenyl-phenylether	10000	U
86-73-7	Fluorene	10000	U
100-01-6	4-Nitroaniline	26000	U
534-52-1	4,6-Dinitro-2-Methylphenol	26000	U
86-30-6	N-Nitrosodiphenylamine (1)	10000	U
101-55-3	4-Bromophenyl-phenylether	10000	U
118-74-1	Hexachlorobenzene	10000	U
87-86-5	Pentachlorophenol	26000	U
85-01-8	Phenanthrene	10000	U
120-12-7	Anthracene	10000	U
86-74-8	Carbazole	10000	U
84-74-2	Di-n-Butylphthalate	10000	U
206-44-0	Fluoranthene	10000	U
129-00-0	Pyrene	10000	U
85-68-7	Butylbenzylphthalate	2100	J
91-94-1	3,3'-Dichlorobenzidine	10000	U
56-55-3	Benzo(a)Anthracene	10000	U
218-01-9	Chrysene	10000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	730	J
117-84-0	Di-n-Octyl Phthalate	1000	J
205-99-2	Benzo(b)Fluoranthene	10000	U
207-08-9	Benzo(k)Fluoranthene	10000	U
50-32-8	Benzo(a)Pyrene	10000	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10000	U
53-70-3	Dibenz(a,h)Anthracene	10000	U
191-24-2	Benzo(g,h,i)Perylene	10000	U

(1) - Cannot be separated from Diphenylamine

000345

12/04/95 mm

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HQ929

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021203

Sample wt/vol: 1.0 (g/mL) G Lab File ID: GK644

Level: (low/med) MED Date Received: 09/16/95

% Moisture: 2 decanted: (Y/N) N Date Extracted: 09/20/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 2.4

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 100527	Benzaldehyde	12.33	4200	JN
2. 65850	Benzoic acid	15.75	3500	JN
3.	UNKNOWN	18.30	2300	J
4.	UNKNOWN	21.58	6000	J

NJ

12/04/95 mc

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HQ929

SDG Number: HR481

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)	
19.82		ALKANE TYPE 4	53000	NJ
20.30		ALKANE TYPE 4	110000	
21.47		ALKANE TYPE 4	57000	
21.52		ALKANE TYPE 4	78000	
22.03		ALKANE TYPE 4	46000	
22.08		ALKANE TYPE 4	74000	
22.67		ALKANE TYPE 4	90000	
22.73		ALKANE TYPE 4	59000	
23.70		ALKANE TYPE 4	42000	
23.77		ALKANE TYPE 4	94000	
23.88		ALKANE TYPE 4	58000	
24.73		ALKANE TYPE 4	42000	
24.80		ALKANE TYPE 4	44000	
26.52		ALKANE TYPE 4	38000	
26.67		ALKANE TYPE 4	29000	
26.73		ALKANE TYPE 4	37000	
29.32		ALKANE TYPE 4	27000	
30.10		ALKANE TYPE 4	74000	
30.87		ALKANE TYPE 4	57000	NJ
31.60		ALKANE TYPE 4	29000	NJ

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSO-01

HR581

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021004

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

% Moisture: 25 decanted: (Y/N) N Date Received: 09/15/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/26/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 3.6 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.3	U
319-85-7	beta-BHC	2.3	U
319-86-8	delta-BHC	2.3	U
58-89-9	gamma-BHC (Lindane)	2.3	U
76-44-8	Heptachlor	2.3	U
309-00-2	Aldrin	2.3	U
1024-57-3	Heptachlor epoxide	2.3	U
959-98-8	Endosulfan I	2.3	U
60-57-1	Dieldrin	4.4	U
72-55-9	4,4'-DDE	4.4	U
72-20-8	Endrin	4.4	U
33213-65-9	Endosulfan II	4.4	U
72-54-8	4,4'-DDD	4.4	U
1031-07-8	Endosulfan sulfate	4.4	U
50-29-3	4,4'-DDT	4.4	U
72-43-5	Methoxychlor	23	U
53494-70-5	Endrin ketone	4.4	U
7421-93-4	Endrin aldehyde	4.4	U
5103-71-9	alpha-Chlordane	2.3	U
5103-74-2	gamma-Chlordane	2.3	U
8001-35-2	Toxaphene	230	U
12674-11-2	Aroclor-1016	44	U
11104-28-2	Aroclor-1221	89	U
11141-16-5	Aroclor-1232	44	U
53469-21-9	Aroclor-1242	44	U
12672-29-6	Aroclor-1248	44	U
11097-69-1	Aroclor-1254	44	U
11096-82-5	Aroclor-1260	44	U

12/05/95

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EPA SAMPLE NO.
RA-U50-02

HR582

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021005

Sample wt/vol: 30.1 (g/mL) G Lab File ID:

% Moisture: 38 decanted: (Y/N) N Date Received: 09/15/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/23/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.9 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.7	U
319-85-7	beta-BHC	2.7	U
319-86-8	delta-BHC	2.7	U
58-89-9	gamma-BHC (Lindane)	2.7	U
76-44-8	Heptachlor	2.7	U
309-00-2	Aldrin	2.7	U
1024-57-3	Heptachlor epoxide	2.7	U
959-98-8	Endosulfan I	2.7	U
60-57-1	Dieldrin	5.3	U
72-55-9	4,4'-DDE	5.3	U
72-20-8	Endrin	5.3	U
33213-65-9	Endosulfan II	5.3	U
72-54-8	4,4'-DDD	5.3	U
1031-07-8	Endosulfan sulfate	5.3	U
50-29-3	4,4'-DDT	5.3	U
72-43-5	Methoxychlor	27	U
53494-70-5	Endrin ketone	5.3	U
7421-93-4	Endrin aldehyde	5.3	U
5103-71-9	alpha-Chlordane	2.7	U
5103-74-2	gamma-Chlordane	2.7	U
8001-35-2	Toxaphene	270	U
12674-11-2	Aroclor-1016	53	U
11104-28-2	Aroclor-1221	110	U
11141-16-5	Aroclor-1232	53	U
53469-21-9	Aroclor-1242	53	U
12672-29-6	Aroclor-1248	53	U
11097-69-1	Aroclor-1254	53	U
11096-82-5	Aroclor-1260	53	U

12/05/95

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSO-03

HR566

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020611

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

% Moisture: 19 decanted: (Y/N) N Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/15/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/22/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 2.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC (Lindane)	2.1	U
76-44-8	Heptachlor	2.1	U
309-00-2	Aldrin	2.1	U
1024-57-3	Heptachlor epoxide	2.1	U
959-98-8	Endosulfan I	2.1	U
60-57-1	Dieldrin	4.1	U
72-55-9	4,4'-DDE	4.1	U
72-20-8	Endrin	4.1	U
33213-65-9	Endosulfan II	4.1	U
72-54-8	4,4'-DDD	4.1	U
1031-07-8	Endosulfan sulfate	4.1	U
50-29-3	4,4'-DDT	4.1	U
72-43-5	Methoxychlor	21	U
53494-70-5	Endrin ketone	4.1	U
7421-93-4	Endrin aldehyde	4.1	U
5103-71-9	alpha-Chlordane	2.1	U
5103-74-2	gamma-Chlordane	2.1	U
8001-35-2	Toxaphene	210	U
12674-11-2	Aroclor-1016	41	U
11104-28-2	Aroclor-1221	83	U
11141-16-5	Aroclor-1232	41	U
53469-21-9	Aroclor-1242	41	U
12672-29-6	Aroclor-1248	41	U
11097-69-1	Aroclor-1254	41	U
11096-82-5	Aroclor-1260	41	U

001499

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SWSO-0'

HR573

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020615

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

% Moisture: 19 decanted: (Y/N) N Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/15/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/26/95

Injection Volume: 1.00 (uL) Dilution Factor: 8.0

GPC Cleanup: (Y/N) Y pH: 7.5 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	17	U
319-85-7	beta-BHC	17	U
319-86-8	delta-BHC	17	U
58-89-9	gamma-BHC (Lindane)	17	U
76-44-8	Heptachlor	17	U
309-00-2	Aldrin	17	U
1024-57-3	Heptachlor epoxide	17	U
959-98-8	Endosulfan I	17	U
60-57-1	Dieldrin	33	U
72-55-9	4,4'-DDE	33	U
72-20-8	Endrin	33	U
33213-65-9	Endosulfan II	33	U
72-54-8	4,4'-DDD	33	U
1031-07-8	Endosulfan sulfate	33	U
50-29-3	4,4'-DDT	33	U
72-43-5	Methoxychlor	170	U
53494-70-5	Endrin ketone	33	U
7421-93-4	Endrin aldehyde	33	U
5103-71-9	alpha-Chlordane	17	U
5103-74-2	gamma-Chlordane	17	U
8001-35-2	Toxaphene	1700	U
12674-11-2	Aroclor-1016	330	U
11104-28-2	Aroclor-1221	660	U
11141-16-5	Aroclor-1232	330	U
53469-21-9	Aroclor-1242	330	U
12672-29-6	Aroclor-1248	330	U
11097-69-1	Aroclor-1254	330	U
11096-82-5	Aroclor-1260	330	U

FLG 11/28/95

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSO-05

HQ922

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020601

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

% Moisture: 13 decanted: (Y/N) N Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/15/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/21/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
319-84-6	alpha-BHC	2.0	U	
319-85-7	beta-BHC	2.0	U	
319-86-8	delta-BHC	2.0	U	
58-89-9	gamma-BHC (Lindane)	2.0	U	
76-44-8	Heptachlor	2.0	U	
309-00-2	Aldrin	5.5	P	NJ
1024-57-3	Heptachlor epoxide	2.0	U	
959-98-8	Endosulfan I	0.60	JP	NJ
60-57-1	Dieldrin	1.6	J	
72-55-9	4,4'-DDE	3.8	U	
72-20-8	Endrin	3.8	U	
33213-65-9	Endosulfan II	0.75	JP	NJ
72-54-8	4,4'-DDD	3.8	U	
1031-07-8	Endosulfan sulfate	3.8	U	
50-29-3	4,4'-DDT	3.8	U	
72-43-5	Methoxychlor	20	U	
53494-70-5	Endrin ketone	3.8	U	
7421-93-4	Endrin aldehyde	0.68	JP	NJ
5103-71-9	alpha-Chlordane	0.48	JP	NJ
5103-74-2	gamma-Chlordane	2.0	U	
8001-35-2	Toxaphene	200	U	
12674-11-2	Aroclor-1016	38	U	
11104-28-2	Aroclor-1221	77	U	
11141-16-5	Aroclor-1232	38	U	
53469-21-9	Aroclor-1242	38	U	
12672-29-6	Aroclor-1248	38	U	
11097-69-1	Aroclor-1254	38	U	
11096-82-5	Aroclor-1260	38	U	

VKC 11/29/95

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSO-06

HQ923

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020602

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

% Moisture: 20 decanted: (Y/N) N Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/15/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/21/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 1.9 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC (Lindane)	2.1	U
76-44-8	Heptachlor	2.1	U
309-00-2	Aldrin	2.1	U
1024-57-3	Heptachlor epoxide	2.1	U
959-98-8	Endosulfan I	2.1	U
60-57-1	Dieldrin	4.1	U
72-55-9	4,4'-DDE	4.1	U
72-20-8	Endrin	4.1	U
33213-65-9	Endosulfan II	4.1	U
72-54-8	4,4'-DDD	4.1	U
1031-07-8	Endosulfan sulfate	4.1	U
50-29-3	4,4'-DDT	4.1	U
72-43-5	Methoxychlor	21	U
53494-70-5	Endrin ketone	4.1	U
7421-93-4	Endrin aldehyde	4.1	U
5103-71-9	alpha-Chlordane	2.1	U
5103-74-2	gamma-Chlordane	2.1	U
8001-35-2	Toxaphene	210	U
12674-11-2	Aroclor-1016	41	U
11104-28-2	Aroclor-1221	84	U
11141-16-5	Aroclor-1232	41	U
53469-21-9	Aroclor-1242	41	U
12672-29-6	Aroclor-1248	41	U
11097-69-1	Aroclor-1254	41	U
11096-82-5	Aroclor-1260	41	U

KRG 11/22/95

001440

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSO-07

HQ924

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020603

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

% Moisture: 15 decanted: (Y/N) N Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/15/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/21/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 2.8 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.0	U
319-85-7	beta-BHC	0.76	JP
319-86-8	delta-BHC	2.0	U
58-89-9	gamma-BHC (Lindane)	2.0	U
76-44-8	Heptachlor	2.0	U
309-00-2	Aldrin	2.0	U
1024-57-3	Heptachlor epoxide	2.0	U
959-98-8	Endosulfan I	2.0	U
60-57-1	Dieldrin	3.9	U
72-55-9	4,4'-DDE	3.9	U
72-20-8	Endrin	3.9	U
33213-65-9	Endosulfan II	3.9	U
72-54-8	4,4'-DDD	3.9	U
1031-07-8	Endosulfan sulfate	3.9	U
50-29-3	4,4'-DDT	3.9	U
72-43-5	Methoxychlor	20	U
53494-70-5	Endrin ketone	3.9	U
7421-93-4	Endrin aldehyde	3.9	U
5103-71-9	alpha-Chlordane	2.0	U
5103-74-2	gamma-Chlordane	2.0	U
8001-35-2	Toxaphene	200	U
12674-11-2	Aroclor-1016	39	U
11104-28-2	Aroclor-1221	79	U
11141-16-5	Aroclor-1232	39	U
53469-21-9	Aroclor-1242	39	U
12672-29-6	Aroclor-1248	39	U
11097-69-1	Aroclor-1254	39	U
11096-82-5	Aroclor-1260	39	U

NJ

AKC 11/28/95

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WS0-08

HQ929

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021203

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

% Moisture: 2 decanted: (Y/N) N Date Received: 09/15/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/26/95

Injection Volume: 1.00 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: 2.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
319-84-6	alpha-BHC	0.89	JP	NJ
319-85-7	beta-BHC	8.7	U	
319-86-8	delta-BHC	8.7	U	
58-89-9	gamma-BHC (Lindane)	8.7	U	
76-44-8	Heptachlor	2.9	JP	NJ
309-00-2	Aldrin	14	P	NJ
1024-57-3	Heptachlor epoxide	8.7	U	
959-98-8	Endosulfan I	8.7	U	
60-57-1	Dieldrin	17	U	
72-55-9	4,4'-DDE	19		
72-20-8	Endrin	17	U	
33213-65-9	Endosulfan II	21	P	NJ
72-54-8	4,4'-DDD	22		NJ
1031-07-8	Endosulfan sulfate	10	JP	NJ
50-29-3	4,4'-DDT	17	U	
72-43-5	Methoxychlor	47	JP	NJ
53494-70-5	Endrin ketone	24		
7421-93-4	Endrin aldehyde	9.0	JP	NJ
5103-71-9	alpha-Chlordane	8.7	U	
5103-74-2	gamma-Chlordane	6.9	JP	NJ
8001-35-2	Toxaphene	870	U	
12674-11-2	Aroclor-1016	170	U	
11104-28-2	Aroclor-1221	340	U	
11141-16-5	Aroclor-1232	170	U	
53469-21-9	Aroclor-1242	170	U	
12672-29-6	Aroclor-1248	170	U	
11097-69-1	Aroclor-1254	170	U	
11096-82-5	Aroclor-1260	170	U	

12/05/95

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSO-08

HQ929DL

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021203DL

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

% Moisture: 2 decanted: (Y/N) N Date Received: 09/15/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/26/95

Injection Volume: 1.00 (uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) Y pH: 2.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
319-84-6	alpha-BHC	87	U	
319-85-7	beta-BHC	87	U	
319-86-8	delta-BHC	87	U	
58-89-9	gamma-BHC (Lindane)	87	U	
76-44-8	Heptachlor	87	U	
309-00-2	Aldrin	9.3	DJP	NJ
1024-57-3	Heptachlor epoxide	87	U	
959-98-8	Endosulfan I	87	U	
60-57-1	Dieldrin	170	U	
72-55-9	4,4'-DDE	170	U	
72-20-8	Endrin	170	U	
33213-65-9	Endosulfan II	170	U	
72-54-8	4,4'-DDD	170 ~~23~~	~~DJP~~ U	
1031-07-8	Endosulfan sulfate	19	DJP	NJ
50-29-3	4,4'-DDT	170	U	
72-43-5	Methoxychlor	870	U	
53494-70-5	Endrin ketone	27	DJ	
7421-93-4	Endrin aldehyde	170	U	
5103-71-9	alpha-Chlordane	87	U	
5103-74-2	gamma-Chlordane	87	U	
8001-35-2	Toxaphene	8700	U	
12674-11-2	Aroclor-1016	1700	U	
11104-28-2	Aroclor-1221	3400	U	
11141-16-5	Aroclor-1232	1700	U	
53469-21-9	Aroclor-1242	1700	U	
12672-29-6	Aroclor-1248	1700	U	
11097-69-1	Aroclor-1254	1700	U	
11096-82-5	Aroclor-1260	1700	U	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

Ref: 8ES-MEB

November 30, 1995

MEMORANDUM

SUBJECT: Data validation for Rico Argentine Mine Site, Case #24008, SDG # HQ922

FROM: Russ Leclerc RL 11/30/95
Chemist
Program Support Group, Technical Support Team

TO: Greg Oberly
8HWM-SM

The Environmental Services Assistance Team (ESAT) has completed its review of data from the analysis of twenty soil samples for full Contract Laboratory Program (CLP), Routine Analytical Services (RAS) organic analyses for **Rico Argentine Mine Site, Case 24008**, Sample Delivery Group (SDG) **#HQ922**. I have evaluated ESAT's data validation package and agree with ESAT's review. Data in the enclosed package are acceptable with the qualifiers added to the data reports. Please refer to the attached ICF Kaiser data validation report including the narrative summary and comments for a full explanation of the data review findings.

If you have any questions,or if I can be of further assistance, please contact me at 312-6971.

Attachments

Printed on Recycled Paper

REGION VIII
SUMMARY OF CLP DATA QUALITY ASSURANCE REVIEW
ORGANICS - VOLATILE, SEMIVOLATILE, PESTICIDE/AROCLOR

CASE NO.	SITE NAME		SITE ID/OPERABLE UNIT
24008	Rico Argentine Mine		8ZZ/00
RPM NAME	ESAT TID: 08-9510-703		
Greg Oberly	ESAT WUD: 23		
CONTRACTOR LABORATORY	CONTRACT NO.	SDG NO.	LABORATORY TPO/REGION
Recra Environmental, Inc.	68-D5-0010	HQ922	Stevie Wilding/III

Data Reviewer Kristy K. Grove
Review Completion Date 11/28/95

SAMPLE ID	SAMPLE LOCATION	MATRIX	DATE SAMPLED	ANALYSIS
HQ922	RA-WSO-05	Soil	09/11/95	CLP RAS organics
HQ923	RA-WSO-06	Soil	09/11/95	CLP RAS organics
HQ924	RA-WSO-07	Soil	09/11/95	CLP RAS organics
HR474	RA-WSE-02	Soil	09/13/95	CLP RAS organics
HR476	RA-WSE-03	Soil	09/13/95	CLP RAS organics
HR550	RA-SE-10	Soil	09/11/95	CLP RAS organics
HR552	RA-SE-11	Soil	09/11/95	CLP RAS organics
HR556	RA-SE-08	Soil	09/11/95	CLP RAS organics
HR557	RA-SE-09	Soil	09/11/95	CLP RAS organics
HR559	RA-SE-07	Soil	09/12/95	CLP RAS organics
HR562	RA-SE-04	Soil	09/12/95	CLP RAS organics
HR565	RA-SE-06	Soil	09/12/95	CLP RAS organics
HR566	RA-WSO-03	Soil	09/12/95	CLP RAS organics
HR568	RA-SE-03	Soil	09/12/95	CLP RAS organics
HR569	RA-SO-01	Soil	09/12/95	CLP RAS organics
HR571	RA-SE-02	Soil	09/12/95	CLP RAS organics
HR573	RA-WSO-04	Soil	09/12/95	CLP RAS organics
HR575	RA-SE-05	Soil	09/12/95	CLP RAS organics
HR578	RA-SO-02	Soil	09/12/95	CLP RAS organics
HR580	RA-SE-01	Soil	09/13/95	CLP RAS organics

reviewed 11/28/95

DATA QUALITY STATEMENT*

( ) Data are ACCEPTABLE according to EPA Functional Guidelines with no qualifiers (flags) added by the reviewer.

( ) Data are UNACCEPTABLE according to EPA Functional Guidelines.

(X) Data are acceptable with QUALIFICATIONS noted in review.

Telephone/Communication Logs Enclosed? Yes ___ No X

TPO Attention Required? Yes X No ___ If yes, list the items that require attention:

The laboratory did not mention in the Case Narrative the reason that sample HR552 was analyzed for pesticide/PCBs at a two fold dilution and sample HR573 was analyzed at an eight fold dilution. Review of the chromatographic profiles indicated the presence of an interfering non-target compound. Similar results were found in additional pesticide analyses from the same laboratory, but different sampling site, indicating a laboratory contamination problem. See Section VIII - Pesticide Sample Results.

* Please see Data Qualifier Definitions, attached to the end of this report.

REVIEW NARRATIVE SUMMARY

This data package was reviewed according to the EPA document *National Functional Guidelines for Organic Data Review*, February 1994.

Case 24008, SDG HQ922, consisted of 20 soil samples for full CLP RAS organic analyses.

Water samples HR482, HR560, and HR577 from Case 24008, SDG HR479 and SDG HR549 were designated rinsate blanks and were used to evaluate sample results. Water samples HR483, HR478, HR572, HR576, and HR563 from Case 24008, SDG HR479 and SDG HR549 were designated volatile QC blanks and were used to evaluate volatile organic sample results. Results for the rinsate and field blanks are attached to the end of the report.

The laboratory performed the required library search on all non-target sample components. All tentatively identified compounds (TICs) were qualified "NJ" - tentatively identified at an estimated concentration. TICs detected in the samples and associated blanks were qualified "R" rejected.

The following tables list all data qualifiers added to the data.

SAMPLE NUMBER	VOLATILE COMPOUND	QUALIFIER	REASON FOR QUALIFICATION	REVIEW SECTION
All	methylene chloride	UJ	Initial Calibration	IV
All	methylene chloride	UJ	Continuing Calibration	
HQ922, HQ923, HQ924, HR550, HR552, HR556, HR557, HR559, HR562, HR565, HR568	carbon disulfide	UJ or J		
HR565, HR568, HR568RE	All	UJ or J	Internal Standard Area	VII
HR565RE	1,1,1-trichloroethane, carbon tetrachloride, bromodichloromethane, bromoform, benzene, 1,2-dichloropropane, trans-1,3-dichloropropene, trichloroethene, dibromochloromethane, 1,1,2-trichloroethane, cis-1,3-dichloropropene, 2-hexanone, 4-methyl-2-pentanone, tetrachloroethene, 1,1,2,2-tetrachloroethane, toluene, chlorobenzene, ethylbenzene, styrene, xylene (total)			

SAMPLE NUMBER	VOLATILE COMPOUND	QUALIFIER	REASON FOR QUALIFICATION	REVIEW SECTION
HQ922, HQ923, HQ924, HR474, HR550, HR556, HR557, HR559, HR562, HR565, HR566, HR573, HR565RE	methylene chloride	U	Laboratory Blank Results	VIII
HR568, HR568RE		11 U		
HR552, HR571, HR578, HR580		12 U		
HR476		13 U		
HR569		14 U		
HR575		15 U		

SAMPLE NUMBER	SEMIVOLATILE COMPOUND	QUALIFIER	REASON FOR QUALIFICATION	REVIEW SECTION
HR557, HQ922, HR550, HR552, HR566, HR569, HR575, HR578, HQ923	2,2'-oxybis(1-chloropropane)	UJ	Continuing Calibration	IV
HR556	4-methylphenol			
HR550, HR552, HR566, HR569, HR575, HR578	N-nitroso-di-n-propylamine			
HQ923	hexachlorobutadiene			
HR556, HR550, HR552, HR566, HR569, HR575, HR578	4-nitrophenol			
HQ923	di-n-butylphthalate, bis(2-ethylhexyl)phthalate	410 U	Laboratory Blank Results	VIII
HQ924		390 U		
HQ923	butylbenzylphthalate	410 U	Sample Results	IX
HQ924		390 U		

SAMPLE NUMBER	PESTICIDE COMPOUND	QUALIFIER	REASON FOR QUALIFICATION	REVIEW SECTION
HQ922	aldrin, endosulfan I, endosulfan II, endrin aldehyde, alpha-chlordane	NJ	Sample Results	VIII
HQ924	beta-BHC			
HR475	aldrin			
HR578	heptachlor, aldrin, heptachlor epoxide, endosulfan I, endrin, 4,4'-DDD, endosulfan sulfate, 4,4'-DDT, endrin ketone, alpha-chlordane, gamma-chlordane			
HR569	endosulfan sulfate, 4,4'-DDT			

ORGANIC RAS VOLATILE DATA QUALITY ASSURANCE REVIEW

SOW Number OLM03.0
Revision OLM03.1 **RAS ORGANIC DATA COMPLETENESS CHECKLIST**
VOLATILE

Quality Control Summary Package
- P Surrogate Recovery Summary (Form II)
- P MS/MSD Summary (Form III)
- P Method Blank Summary (Form IV)
- P GC/MS Tuning and Mass Calibration (Form V)

Sample Data Package
- P Holding Times (SMO Sample Traffic Reports)
- P Organic Analysis Data Sheets (Form I)
- P Reconstructed Ion Chromatogram(s) (RIC)
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Mass Spectral Library Search for TICs

Standards Data Package
- NR Current List of Laboratory/Instrument Detection Limits
- P Initial Calibration Data (Form VI) for each instrument
- P Continuing Calibration Data (Form VII) for each instrument
- P Internal Standard Area Summary (Form VIII)
- P Volatile Standards RICs
- P Volatile Standards Quantitation Reports

Raw QC Package
- P BFB mass spectra and mass listings

Reagent Blank data
- P Organic Analysis Data Sheets (Form I)
- P RIC or Total Ion Chromatogram
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Library Search for TICs

Matrix Spike/Matrix Spike Duplicate Data
- P Organic Analysis Data Sheets
- P RIC
- P Quantitation Reports
- NR Mass Spectral Data
- NR EPA/NIH Library Search for TICs

KEY: P - Provided in original data package, as required by the SOW
R - Provided as Resubmission
NP - Not provided in original data package or as resubmission
NR - Not required under the SOW
NA - Not applicable to this data package or analysis

ORGANIC RAS VOLATILE DATA QUALITY ASSURANCE REVIEW

I. **DELIVERABLES**

All deliverables were present as specified in the statement of work.

VOLATILE: Yes _X_ No ___

Comments: None.

II. **HOLDING TIMES**

All **CLP-SOW** holding times were met.

VOLATILE: Yes _X_ No ___

Comments: None.

All **technical** holding times were met.

VOLATILE: Yes _X_ No ___

Comments: None.

III. **BFB PERFORMANCE RESULTS**

The BFB performance results were within the specified control limits. All appropriate BFB results were included.

VOLATILE: Yes _X_ No ___

Comments: None.

IV. **INSTRUMENT CALIBRATIONS: INITIAL AND CONTINUING STANDARDS**

Initial instrument calibrations were performed according to SOW requirements and met the specified control limits listed in the functional guidelines.

VOLATILE: Yes ___ No _X_

Comments: The laboratory met all the SOW requirements. However, one compound was outside control limits of less than 30% relative standard deviation (%RSD) for the initial calibration. The following table lists the compound, %RSD, associated samples, and qualifiers added to the data.

COMPOUND	%RSD	ASSOCIATED SAMPLES	QUALIFIERS
methylene chloride	60.7	All	UJ or J*

* Methylene chloride was subsequently flagged "U" due to blank contamination. The final qualifier is a "U" flag and "UJ" qualifier.

Continuing instrument calibration was performed according to SOW requirements and met specified control limits listed in the functional guidelines.

VOLATILE: Yes ___ No _X_

Comments: The laboratory met all the SOW requirements. However, when compared to the initial calibration, two compounds were outside control limits of less than 25 percent difference (%D) for the continuing calibration. Listed below are the compounds, %D, associated samples, and qualifiers added to the data.

COMPOUND	%DIFFERENCE	ASSOCIATED SAMPLES	QUALIFIERS
carbon disulfide	28.0	HQ922, HQ923, HQ924, HR550, HR552, HR556, HR557, HR559, HR562, HR565, HR568	UJ or J
methylene chloride	38.3		UJ or J*
	47.8	HR474, HR565RE, HR566, HR568RE, HR569, HR571, HR573, HR575, HR580	
	48.1	HR476, HR578	

* Methylene chloride was subsequently flagged "U" due to blank contamination. The final qualifier is a "U" flag and "UJ" qualifier.

V. **SURROGATE COMPOUND RECOVERY**

Surrogate compound recovery analysis was performed according to SOW requirements and results met specified control limits.

VOLATILE: Yes _X_ No ___

Comments: None.

VI. **MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

Matrix Spike/Matrix Spike Duplicate analysis was performed according to SOW requirements and results met recommended recovery and precision limits.

VOLATILE: Yes _X_ No ___

Comments: None.

ORGANIC RAS VOLATILE DATA QUALITY ASSURANCE REVIEW

VII. INTERNAL STANDARD AREA

Internal standard area analysis was performed according to SOW requirements and results met specified control limits.

VOLATILE: Yes ___ No _X_

Comments: Two samples had internal standard areas outside quality control limits of -50 to +100% of the associated continuing calibration internal standard area as listed in the following table. Reanalysis results indicate possible matrix interferences.

SAMPLE	INTERNAL STANDARD	INTERNAL STANDARD AREA	CONTROL LIMITS	ASSOCIATED COMPOUNDS	QUALIFIERS
ER565	bromochloromethane	16346	19368-77470	All	UJ or J
	1,4-difluorobenzene	64717	75684-302738		
	chlorobenzene-d_5	50968	61422-245686		
ER568	bromochloromethane	18707	19368-77470		
	1,4-difluorobenzene	73313	75684-302738		
	chlorobenzene-d_5	59677	61422-245686		
ER565RE	1,4-difluorobenzene	49352	50674-202696	1,1,1-trichloroethane, carbon tetrachloride, bromodichloromethane, bromoform, benzene, 1,2-dichloropropane, trans-1,3-dichloropropene, trichloroethene, dibromochloromethane, 1,1,2-trichloroethane, cis-1,3-dichloropropene	
	chlorobenzene-d_5	39386	42318-169274	2-hexanone, 4-methyl-2-pentanone, tetrachloroethene, 1,1,2,2-tetrachloroethane, toluene, chlorobenzene, ethylbenzene, styrene, xylene (total)	
ER568RE	bromochloromethane	8823	12363-49452	All	
	1,4-difluorobenzene	35630	50674-202696		
	chlorobenzene-d_5	28570	42318-169274		

VIII. LABORATORY BLANK ANALYSIS RESULTS

The laboratory blank analysis was performed according to SOW requirements and met specified control limits.

VOLATILE: Yes ___ No _X_

Comments: Methylene chloride, a common volatile laboratory contaminant, was detected in the volatile method blanks as summarized in the following table. Quantitation limits in the associated samples were raised in accordance with the rules set forth in the EPA document *National Functional Guidelines for Organic Data Review*, February 1994.

BLANK ID	DATE	CONTAMINANT	CONCENTRATION FOUND IN BLANK	SAMPLE CRQL	ASSOCIATED SAMPLES	CONCENTRATION FOUND IN SAMPLE	QUALIFIER/ ADJUSTMENT
VBLK56	09/20/95	methylene chloride	15 µg/Kg	11	HQ922	12 µg/Kg	U
				12	HQ923	22 µg/Kg	U
				12	HQ924	13 µg/Kg	U
				16	HR550	18 µg/Kg	U
				12	HR552	8 µg/Kg	12 U
				12	HR556	18 µg/Kg	U
				13	HR557	19 µg/Kg	U
				12	HR559	12 µg/Kg	U
				12	HR562	14 µg/Kg	U
				110	HR565	130 µg/Kg	U
				11	HR568	10 µg/Kg	11 U
VBLK57	09/21/95	methylene chloride	25 µg/Kg*	12	HR474	13 µg/Kg	U
				110	HR565RE	120 µg/Kg	U
				12	HR566	18 µg/Kg	U
				11	HR568RE	9 µg/Kg	11 U
				14	HR569	9 µg/Kg	14 U
				12	HR571	10 µg/Kg	12 U
				12	HR573	24 µg/Kg	U
				15	HR575	13 µg/Kg	15 U
				12	HR580	10 µg/Kg	12 U
VBLK58	09/22/95	methylene chloride	5 µg/Kg	13	HR476	4 µg/Kg	13 U
				12	HR578	6 µg/Kg	12 U

* Contamination is at the CLP SOW maximum allowable concentration.

Comments: Chloroform and acetone were detected in the rinsate and volatile field QC blanks. These compounds were not detected in the associated soil samples. The volatile storage blank was reviewed and met CLP SOW requirements. No qualifiers were added to the data.

Comments: Tentatively identified compounds (TICs) were found in the volatile method blanks. All TICs in the associated samples were previously qualified "NJ" - estimated tentatively identified compounds in the Review Summary. The following table lists blank results, associated samples and qualifiers added to the data.

BLANK ID	DATE	TIC RETENTION TIME	ASSOCIATED SAMPLES	QUALIFIERS
VBLK56	09/20/95	11.67	HQ922, HQ924, HR550, HR557, HR562	R
		15.73	HQ922, HQ923, HQ924, HR550, HR552, HR556, HR557, HR559, HR562, HR565, HR568	
VBLK57	09/21/95	11.69	HR474, HR568RE, HR569, HR571, HR575, HR580	
		15.77	HR474, HR565RE, HR566, HR568RE, HR569, HR571, HR573, HR575, HR580	
		18.66	HR474, HR580	
VBLK58	09/22/95	15.77	HR476, HR578	

IX. **SAMPLE RESULTS**

The sample results were reviewed and all compound identifications were acceptable and met SOW requirements.

VOLATILE: Yes _X_ No ___

Comments: None.

X. **Additional Comments or Problems/Resolutions not addressed above.**

VOLATILE: None.

ORGANIC RAS SEMIVOLATILE DATA QUALITY ASSURANCE REVIEW

SOW Number OLM03.0
Revision OLM03.1 **RAS ORGANIC DATA COMPLETENESS CHECKLIST**
SEMIVOLATILE

Quality Control Summary Package
- P Surrogate Recovery Summary (Form II)
- P MS/MSD Summary (Form III)
- P Method Blank Summary (Form IV)
- P GC/MS Tuning and Mass Calibration (Form V)

Sample Data Package
- P Holding Times (SMO Sample Traffic Reports)
- P Organic Analysis Data Sheets (Form I)
- P Reconstructed Ion Chromatogram(s) (RIC)
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Mass Spectral Library Search for TICs

Standards Data Package
- NR Current List of Laboratory/Instrument Detection Limits
- P Initial Calibration Data (Form VI) for each instrument
- P Continuing Calibration Data (Form VII) for each instrument
- P Internal Standard Area Summary (Form VIII)
- P Semivolatile Standards RICs
- P Semivolatile Standards Quantitation Reports

Raw QC Package
- P DFTPP mass spectra and mass listings

Reagent Blank data
- P Organic Analysis Data Sheets (Form I)
- P RIC or Total Ion Chromatogram
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Library Search for TICs

Matrix Spike/Matrix Spike Duplicate Data
- P Organic Analysis Data Sheets
- P RIC
- P Quantitation Reports
- NR Mass Spectral Data
- NR EPA/NIH Library Search for TICs

KEY: P - Provided in original data package, as required by the SOW
R - Provided as Resubmission
NP - Not provided in original data package or as resubmission
NR - Not required under the SOW
NA - Not applicable to this data package or analysis

ORGANIC RAS SEMIVOLATILE DATA QUALITY ASSURANCE REVIEW

I. **DELIVERABLES**

All deliverables were present as specified in the statement of work.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

II. **HOLDING TIMES**

All **CLP-SOW** holding times were met.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

All **technical** holding times were met.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

III. **DFTPP PERFORMANCE RESULTS**

The DFTPP performance results were within the specified control limits. All appropriate DFTPP results were included.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

IV. **INSTRUMENT CALIBRATIONS: INITIAL AND CONTINUING STANDARDS**

Initial instrument calibrations were performed according to SOW requirements and met the specified control limits listed in the functional guidelines.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

Continuing instrument calibration was performed according to SOW requirements and met specified control limits listed in the functional guidelines.

SEMIVOLATILE: Yes ___ No _X_

Comments: The laboratory met the SOW requirements. However, when compared to the initial calibration, several compounds were outside control limits of less than 25 percent difference (%D) for the continuing calibration. Listed below are the compounds, %D, associated samples, and qualifiers added to the data.

COMPOUND	%DIFFERENCE	ASSOCIATED SAMPLES	QUALIFIERS
2,2'-oxybis(1-chloropropane)	31.9	HR557, HQ922	UJ
	41.9	HR550, HR552, HR566, HR569, HR575, HR578	
	41.0	HQ923	
4-methylphenol	26.1	HR556	
N-nitroso-di-n-propylamine	25.6	HR550, HR552, HR566, HR569, HR575, HR578	
hexachlorobutadiene	27.6	HQ923	
4-nitrophenol	32.0	HR556	
	31.2	HR550, HR552, HR566, HR569, HR575, HR578	

V. **SURROGATE COMPOUND RECOVERY**

Surrogate compound recovery analysis was performed according to SOW requirements and results met specified control limits.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

VI. **MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

Matrix Spike/Matrix Spike Duplicate analysis was performed according to SOW requirements and results met recommended recovery and precision limits.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

VII. INTERNAL STANDARD AREA

Internal standard area analysis was performed according to SOW requirements and results met specified control limits.

SEMIVOLATILE: Yes X No ___

Comments: None.

VIII. LABORATORY BLANK ANALYSIS RESULTS

The laboratory blank analysis was performed according to SOW requirements and met specified control limits.

SEMIVOLATILE: Yes ___ No X

Comments: Common semivolatile phthalate contamination was detected in one of the semivolatile extraction blanks as summarized in the following table. Quantitation limits in the associated samples were raised in accordance with the rules set forth in the EPA document *National Functional Guidelines for Organic Data Review*, February 1994.

BLANK ID	DATE	CONTAMINANT	CONCENTRATION FOUND IN BLANK	SAMPLE CRQL	ASSOCIATED SAMPLES	CONCENTRATION FOUND IN SAMPLE	QUALIFIER/ ADJUSTMENT
SBLK2	09/21/95	di-n-butylphthalate	33 µg/Kg	410	HQ923	72 µg/Kg	410 U
				390	HQ924	31 µg/Kg	390 U
		bis (2-ethylhexyl)phthalate	26 µg/Kg	410	HQ923	66 µg/Kg	410 U
				390	HQ924	37 µg/Kg	390 U

Comments: The laboratory also reported butylbenzylphthalate in SBLK2 and associated samples HQ923 and HQ924. However, the mass spectrum did not meet the minimum requirements specified in the SOW. See Section IX, Sample Results.

Comments: No contamination was reported in the designated semivolatile rinsate blanks.

Comments: Tentatively identified compounds (TICs) were found in the semivolatile extraction blanks. All TICs in the associated samples were previously qualified "NJ" - estimated tentatively identified compounds in the Review Summary. The following table lists blank results, associated samples and qualifiers added to the data.

BLANK ID	DATE	TIC RETENTION TIME	ASSOCIATED SAMPLES	QUALIFIERS
SBLK1	09/15/95	12.92	HR568	R
		30.32	HR550, HR552, HR556, HR557, HR559, HR562, HR566, HR568, HR571, HR573, HR575, HR578	
SBLK3	09/18/95	12.75	HR474, HR580	
		30.15	HR474, HR476, HR580	
SBLK2	09/21/95	12.73	HQ924	
		29.37, 30.05, 31.55	HQ923, HQ924	
		30.82	HQ923	

IX. **SAMPLE RESULTS**

The sample results were reviewed and all compound identifications were acceptable and met SOW requirements.

SEMIVOLATILE: Yes ___ No X

Comments: The laboratory reported butylbenzylphthalate in SBLK2 and associated samples HQ923 and HQ924. However, the mass spectrum did not meet the minimum requirements specified in the SOW. The results for butlybenzylphthalate were raised to the CRQL of 410 µg/Kg for HQ923 and 390 µg/Kg for HQ924 and flagged "U" - undetected.

X. **Additional Comments or Problems/Resolutions not addressed above.**

SEMIVOLATILE: None.

ORGANIC RAS SEMIVOLATILE DATA QUALITY ASSURANCE REVIEW

SOW Number OLM03.0
Revision OLM03.1 **RAS ORGANIC DATA COMPLETENESS CHECKLIST**

PESTICIDE/AROCLOR

Quality Control Summary Package

P Surrogate Recovery Summary (Form II)
P MS/MSD Summary (Form III)
P Method Blank Summary (Form IV)
NA GC/MS Tuning and Mass Calibration (Form V)

Sample Data Package

P Holding Times (SMO Sample Traffic Reports)
P Organic Analysis Data Sheets (Form I)
P GC/EC Chromatograms
P Pesticide Identification Summary for Single Component Analytes (Form X-1) -for positive results only
P Pesticide Identification Summary for Multicomponent Analytes (Form X-2) -for positive results only

Standards Data Package

NR Current List of Laboratory/Instrument Detection Limits
P Pesticide Initial Calibration of Single Component Analytes (Form VI-1,2)
P Pesticide Initial Calibration of Multicomponent Analytes (Form VI-3)
P Pesticide Analyte Resolution Summary (Form VI-4,5,6,7)
P Pesticide Calibration Verification Summary (Form VII-1,2)
P Pesticide Analytical Sequence (Form VIII)
P Pesticide Florisil Cartridge Check (Form IX-1)
P Pesticide GPC Calibration (Form IX-2)
P Pesticide/Aroclor Standard Chromatograms and Data System Printouts

Reagent Blank data

P Organic Analysis Data Sheets (Form I)
P GC/EC Chromatograms and Data System Printouts

Matrix Spike/Matrix Spike Duplicate Data

P Organic Analysis Data Sheets
P GC/EC Chromatograms and Data System Printouts

KEY: P - Provided in original data package, as required by the SOW
R - Provided as Resubmission
NP - Not provided in original data package or as resubmission
NR - Not required under the SOW
NA - Not applicable to this data package or analysis

ORGANIC RAS SEMIVOLATILE DATA QUALITY ASSURANCE REVIEW

I. **DELIVERABLES**

All deliverables were present as specified in the statement of work.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

II. **HOLDING TIMES**

All **CLP-SOW** holding times were met.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

All **technical** holding times were met.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

III. **SURROGATE COMPOUND RECOVERY**

Surrogate compound recovery analysis was performed according to SOW requirements and results met specified control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

IV. **MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

Matrix Spike/Matrix Spike Duplicate analysis was performed according to SOW requirements and results met recommended recovery and precision limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

V. **INTERNAL STANDARD AREA**

Internal standard area analysis was performed according to SOW requirements and results met specified control limits.

PESTICIDE/AROCLOR: Yes ___ No ___ N/A _X_

Comments: None.

VI. PESTICIDE / AROCLOR STANDARDS CRITERIA

The pesticide resolution check mixture analysis was performed according to SOW requirements and results met recommended recovery limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The pesticide performance evaluation mixture analysis was performed according to SOW requirements and results met recommended recovery limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The breakdown of 4,4'DDT and of Endrin was less than 20% and the combined breakdown was less than 30%.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The decachlorobiphenyl (DCB) and tetrachloro-m-xylene (TCX) retention time shifts were within the specified control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

In the initial calibration, the single component pesticides showed a percent difference of no more than 20% relative standard deviation (RSD) (no more than 25% RSD for alpha-BHC and delta-BHC) on both columns.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

In the continuing calibrations, the single component pesticides showed a percent difference (%D) of no more than 25% on both columns.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The multi-component target compound analyses were performed according to SOW requirements.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The florisil cartridge lot check analysis was performed according to requirements and all spike compounds were within the specified quality control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The gel permeation chromatography (GPC) check was performed according to requirements and all spike compounds were within the specified quality control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___ N/A ___

Comments: None.

VII. LABORATORY BLANK ANALYSIS RESULTS

The laboratory blank analysis was performed according to SOW requirements and met specified control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: The instrument, preparation, and field blank results were reviewed and met SOW requirements.

VIII. SAMPLE RESULTS

The sample results were reviewed and all compound identifications were acceptable and met SOW requirements.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: The percent difference (%D) between the dual column quantitation of several positive results was greater than 25%. The laboratory correctly reported the smaller concentration of the two quantitated concentrations and flagged the results "P" as required by the SOW. Alternative analysis may be necessary to confirm peak identity for compounds with a significantly large dual column quantitation percent difference. The following table summarizes sample results.

SAMPLE NUMBER	COMPOUND	PERCENT DIFFERENCE	QUALIFIER
HQ922	aldrin	223.6	NJ
	endosulfan I	156.7	
	endosulfan II	104.0	
	endrin aldehyde	616.0	
	alpha-chlordane	41.0	
HQ924	beta-BHC	124.3	
HR476	aldrin	87.6	
HR578	heptachlor	26.0	
	aldrin	42.4	
	heptachlor epoxide	72.1	
	endosulfan I	336.2	
	endrin	149.1	
	4,4'-DDD	98.8	
	endosulfan sulfate	233.2	
	4,4'-DDT	261.8	
	endrin ketone	33.3	
	alpha-chlordane	327.2	
	gamma-chlordane	557.6	

Comments: Due to overlapping retention time windows on the RTX-5 column, the laboratory used the area from one peak to quantitate both endosulfan sulfate and 4,4'-DDT in sample HR569. The dual column quantitation was less than the recommended 25% difference for both compounds. However, because of the overlapping retention time windows, both endosulfan sulfate and 4,4'-DDT were qualified "NJ" tentatively identified at an estimated concentration.

Comments: Due to overlapping retention time windows on the RTX-5 column, the laboratory used the area from one peak to quantitate both endosulfan sulfate and 4,4'-DDT in sample HR578. Both compounds were previously qualified for dual column quantitation results. No additional qualifiers were added.

Comments: Due to overlapping retention time windows, the laboratory quantitated the same peak for the reported target compounds alpha-chlordane and endosulfan I in sample HR578. Since these compounds were previously qualified "NJ" tentatively identified at an estimated concentration for dual column percent difference results, no additional qualifiers were added to the data.

Comments: The laboratory did not mention in the Case Narrative the reason that sample HR552 was analyzed at a two fold dilution and sample HR573 was analyzed at an eight fold dilution. Review of the chromatographic profiles indicated the presence of an interfering non-target compound. Similar results were found in additional pesticide analyses from the same laboratory, but different sampling site, indicating a laboratory contamination problem. No target compounds were reported in either sample. The laboratory reported elevated quantitation limits. No additional qualifiers were added to the data.

IX. Additional Comments or Problems/Resolutions not addressed above.

PESTICIDE/AROCLOR: None.

REGION VIII

DATA QUALIFIER DEFINITIONS

For the purpose of Data Validation, the following code letters and associated definitions are provided for use by the data validator to summarize the data quality.

GENERAL QUALIFIERS for use ORGANIC DATA

R - Reported value is "rejected". Resampling or reanalysis may be necessary to verify the presence or absence of the compound.

J - The associated numerical value is an estimated quantity because the Quality Control criteria were not met.

U J - The reported quantitation limit is estimated because Quality Control criteria were not met. Compound was not detected.

N J - Estimated value of a tentatively identified compound.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-18

HR563

Trip

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020509

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FQ957

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	10	U	
67-64-1	Acetone	10	U	UJ
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
67-66-3	Chloroform	33		J
107-06-2	1,2-Dichloroethane	10	U	
78-93-3	2-Butanone	10	U	
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-02-6	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	10	U	UJ
10061-01-5	trans-1,3-Dichloropropene	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	UJ
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR563

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020509

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FQ957

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

KPC 12/15/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA SW-18

HR563RE

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020509RE

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR538

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/25/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR563RE

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020509RE

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR538

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/25/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

LKC 12/5/95

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR576

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020515

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR523

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Dave Christiansen
665-342

KYC 2/5/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-19

HR576
Trip

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020515

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR523

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

UJ

UJ

PLC 12/5/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-22

HR560

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549 Rinsate

Matrix: (soil/water) WATER Lab Sample ID: B5020507

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR535

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	10	U	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
67-66-3	Chloroform	24		
107-06-2	1,2-Dichloroethane	10	U	
78-93-3	2-Butanone	10	U	uJ
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-02-6	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	10	U	uJ
10061-01-5	trans-1,3-Dichloropropene	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	uJ
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

KKC 12/21/95

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR560

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020507

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR535

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC OLM03.0

Case 24008 GC Blank - Midwest

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-22

HR560

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020507

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK495

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

Case 24008 QC Blank - [illegible]

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-22

HR560

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020507

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK495

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

Case 24008 GC Gas - Rinsate

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR560

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020507

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK495

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-22

HR560

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020507

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/14/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/18/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-23

HR577

Rusch

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020516

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR522

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

LKG 10/5/95

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR577

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020516

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR522

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FYG 12/5/95

13

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-23

HR577

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020516

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK506

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/16/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-23

HR577

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020516

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK506

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/16/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR577

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020516

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK506

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/16/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SLU -23

HR577

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020516

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/14/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/19/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-24A

HR482

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020803

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR511

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

12/07/95

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR482

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020803

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR511

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

12/07/95

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-24

HR482

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020803

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK570

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)Ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	UJ
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
111-91-1	bis(2-Chloroethoxy)Methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	25	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	25	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	
99-09-2	3-Nitroaniline	25	U	
83-32-9	Acenaphthene	10	U	

12/07/95

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-24

HR482

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020803

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK570

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

12/07/95

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR482

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020803

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK570

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

12/07/95

QC Blank — Case 24008 — SDG HR479

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-24

HR482

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020803

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/15/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/17/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/20/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-91

HR478

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549 Trip

Matrix: (soil/water) WATER Lab Sample ID: B5020704

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR542

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. Date Analyzed: 09/25/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	10	U	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
67-66-3	Chloroform	26		
107-06-2	1,2-Dichloroethane	10	U	
78-93-3	2-Butanone	10	U	uJ
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-02-6	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	10	U	uJ
10061-01-5	trans-1,3-Dichloropropene	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	uJ
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR478

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020704

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR542

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. Date Analyzed: 09/25/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-92

HR483

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020804

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR512

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	10	U	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
67-66-3	Chloroform	28		IKL
107-06-2	1,2-Dichloroethane	10	U	
78-93-3	2-Butanone	10	U	
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-02-6	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	10	U	UJ
10061-01-5	trans-1,3-Dichloropropene	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	UJ
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

12/07/95 m

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR483

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020804

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR512

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

12/07/95 mm

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-93

HQ928

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5021102

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR516

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	10	U	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
67-66-3	Chloroform	26	U	LKC
107-06-2	1,2-Dichloroethane	10	U	
78-93-3	2-Butanone	10	U	
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-02-6	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	10	U	UJ
10061-01-5	trans-1,3-Dichloropropene	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	UJ
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

12/07/95

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HQ928

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5021102

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR516

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

12/07/95 m

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-20

HR572

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549 Trip

Matrix: (soil/water) WATER Lab Sample ID: B5020513

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR525

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	10	U	
67-64-1	Acetone	6	J	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
67-66-3	Chloroform	29		
107-06-2	1,2-Dichloroethane	10	U	
78-93-3	2-Butanone	10	U	
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-02-6	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	10	U	uJ
10061-01-5	trans-1,3-Dichloropropene	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	uJ
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

KLG 12/5/95

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR572

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020513

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR525

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

12/5/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSLV-01

HR479

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020801

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR509

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

12/07/95

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR479

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020801

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR509

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

12/07/95

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSW-01

HR479

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020801

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK621

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/20/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

12/07/95 mm

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSCW-01

HR479

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020801

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK621

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/20/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

12/07/95 um

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR479

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020801

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK621

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/20/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	14.05	3	BJ

R

12/07/95 mm

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSLW-01

HR479

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020801

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/15/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/17/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/20/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

12/06/95 [illegible]

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA- WSE-01

HR481

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ904

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. 85 Date Analyzed: 09/22/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	67	U
74-83-9	Bromomethane	67	U
75-01-4	Vinyl Chloride	67	U
75-00-3	Chloroethane	67	U
75-09-2	Methylene Chloride	67 ~~28~~	~~BJ~~ U UJ
67-64-1	Acetone	67	U
75-15-0	Carbon Disulfide	67	U
75-35-4	1,1-Dichloroethene	67	U
75-34-3	1,1-Dichloroethane	67	U
540-59-0	1,2-Dichloroethene (total)	67	U
67-66-3	Chloroform	67	U
107-06-2	1,2-Dichloroethane	67	U
78-93-3	2-Butanone	67	U
71-55-6	1,1,1-Trichloroethane	67	U
56-23-5	Carbon Tetrachloride	67	U
75-27-4	Bromodichloromethane	67	U
78-87-5	1,2-Dichloropropane	67	U
10061-02-6	cis-1,3-Dichloropropene	67	U
79-01-6	Trichloroethene	67	U
124-48-1	Dibromochloromethane	67	U
79-00-5	1,1,2-Trichloroethane	67	U
71-43-2	Benzene	67	U
10061-01-5	trans-1,3-Dichloropropene	67	U
75-25-2	Bromoform	67	U
108-10-1	4-Methyl-2-Pentanone	67	U
591-78-6	2-Hexanone	67	U
127-18-4	Tetrachloroethene	67	U
79-34-5	1,1,2,2-Tetrachloroethane	67	U
108-88-3	Toluene	67	U
108-90-7	Chlorobenzene	67	U
100-41-4	Ethylbenzene	67	U
100-42-5	Styrene	67	U
1330-20-7	Xylene (total)	67	U

12/04/95

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR481

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ904

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. 85 Date Analyzed: 09/22/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN COLUMN BLEED	11.68	33	J	NJ
2. 556672	Cyclotetrasiloxane, octameth	15.74	180	BJN	R

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSE-01

HR481

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK635

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 85 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	2200	U	
111-44-4	bis(2-Chloroethyl)Ether	2200	U	
95-57-8	2-Chlorophenol	2200	U	
541-73-1	1,3-Dichlorobenzene	2200	U	
106-46-7	1,4-Dichlorobenzene	2200	U	
95-50-1	1,2-Dichlorobenzene	2200	U	
95-48-7	2-Methylphenol	2200	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	2200	U	UJ
106-44-5	4-Methylphenol	2200	U	
621-64-7	N-Nitroso-Di-n-Propylamine	2200	U	
67-72-1	Hexachloroethane	2200	U	
98-95-3	Nitrobenzene	2200	U	
78-59-1	Isophorone	2200	U	
88-75-5	2-Nitrophenol	2200	U	
105-67-9	2,4-Dimethylphenol	2200	U	
111-91-1	bis(2-Chloroethoxy)Methane	2200	U	
120-83-2	2,4-Dichlorophenol	2200	U	
120-82-1	1,2,4-Trichlorobenzene	2200	U	
91-20-3	Naphthalene	2200	U	
106-47-8	4-Chloroaniline	2200	U	
87-68-3	Hexachlorobutadiene	2200	U	UJ
59-50-7	4-Chloro-3-Methylphenol	2200	U	
91-57-6	2-Methylnaphthalene	2200	U	
77-47-4	Hexachlorocyclopentadiene	2200	U	
88-06-2	2,4,6-Trichlorophenol	2200	U	
95-95-4	2,4,5-Trichlorophenol	5500	U	
91-58-7	2-Chloronaphthalene	2200	U	
88-74-4	2-Nitroaniline	5500	U	
131-11-3	Dimethyl Phthalate	2200	U	
208-96-8	Acenaphthylene	2200	U	
606-20-2	2,6-Dinitrotoluene	2200	U	
99-09-2	3-Nitroaniline	5500	U	
83-32-9	Acenaphthene	2200	U	

12/04/95 MC

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RAWSE-01

HR481

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK635

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 85 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	5500	U
100-02-7	4-Nitrophenol	5500	U
132-64-9	Dibenzofuran	2200	U
121-14-2	2,4-Dinitrotoluene	2200	U
84-66-2	Diethylphthalate	2200	U
7005-72-3	4-Chlorophenyl-phenylether	2200	U
86-73-7	Fluorene	2200	U
100-01-6	4-Nitroaniline	5500	U
534-52-1	4,6-Dinitro-2-Methylphenol	5500	U
86-30-6	N-Nitrosodiphenylamine (1)	2200	U
101-55-3	4-Bromophenyl-phenylether	2200	U
118-74-1	Hexachlorobenzene	2200	U
87-86-5	Pentachlorophenol	5500	U
85-01-8	Phenanthrene	2200	U
120-12-7	Anthracene	2200	U
86-74-8	Carbazole	2200	U
84-74-2	Di-n-Butylphthalate	240	J
206-44-0	Fluoranthene	2200	U
129-00-0	Pyrene	2200	U
85-68-7	Butylbenzylphthalate	2200	U
91-94-1	3,3'-Dichlorobenzidine	2200	U
56-55-3	Benzo(a)Anthracene	2200	U
218-01-9	Chrysene	2200	U
117-81-7	bis(2-Ethylhexyl)Phthalate	170	J
117-84-0	Di-n-Octyl Phthalate	2200	U
205-99-2	Benzo(b)Fluoranthene	2200	U
207-08-9	Benzo(k)Fluoranthene	2200	U
50-32-8	Benzo(a)Pyrene	2200	U
193-39-5	Indeno(1,2,3-cd)Pyrene	2200	U
53-70-3	Dibenz(a,h)Anthracene	2200	U
191-24-2	Benzo(g,h,i)Perylene	2200	U

(1) - Cannot be separated from Diphenylamine

12/04/95 ne

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
RA-WSE-01

HR481

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK635

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 85 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

Number TICs found: 9

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	12.38	1000	J	NJ
2.	UNKNOWN	12.80	9700	J	NJ
3.	UNKNOWN	13.90	4000	J	NJ
4. 57103	Hexadecanoic acid	25.40	550	JN	↓
5.	UNKNOWN	27.53	640	J	
6.	UNKNOWN	29.23	530	J	
7.	UNKNOWN	30.13	920	BJ	R
8.	UNKNOWN	31.15	490	J	NJ
9.	UNKNOWN	32.62	1100	J	NJ

12/04/95 mc

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HR481

SDG Number: HR481

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)	
28.43		ALKANE TYPE 4	2400	NJ
30.05		ALKANE TYPE 4	2100	NJ
30.80		ALKANE TYPE 4	500	NJ
31.55		ALKANE TYPE 4	1200	↓
32.93		ALKANE TYPE 4	960	

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

12/04/95 [illegible]

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSE-01
HR481

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021001

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

% Moisture: 85 decanted: (Y/N) N Date Received: 09/15/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/23/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	11	U
319-85-7	beta-BHC	11	U
319-86-8	delta-BHC	11	U
58-89-9	gamma-BHC (Lindane)	11	U
76-44-8	Heptachlor	11	U
309-00-2	Aldrin	11	U
1024-57-3	Heptachlor epoxide	11	U
959-98-8	Endosulfan I	11	U
60-57-1	Dieldrin	22	U
72-55-9	4,4'-DDE	22	U
72-20-8	Endrin	22	U
33213-65-9	Endosulfan II	22	U
72-54-8	4,4'-DDD	22	U
1031-07-8	Endosulfan sulfate	22	U
50-29-3	4,4'-DDT	22	U
72-43-5	Methoxychlor	110	U
53494-70-5	Endrin ketone	22	U
7421-93-4	Endrin aldehyde	22	U
5103-71-9	alpha-Chlordane	11	U
5103-74-2	gamma-Chlordane	11	U
8001-35-2	Toxaphene	1100	U
12674-11-2	Aroclor-1016	220	U
11104-28-2	Aroclor-1221	450	U
11141-16-5	Aroclor-1232	220	U
53469-21-9	Aroclor-1242	220	U
12672-29-6	Aroclor-1248	220	U
11097-69-1	Aroclor-1254	220	U
11096-82-5	Aroclor-1260	220	U

12/05/95 mm

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSW-02

HR584

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020806

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR514

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

12/07/95

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR584

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020806

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR514

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

12/07/95 mm

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSW-02

HR584

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020806

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK572

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)Ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	UJ
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
111-91-1	bis(2-Chloroethoxy)Methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	25	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	25	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	
99-09-2	3-Nitroaniline	25	U	
83-32-9	Acenaphthene	10	U	

12/07/95

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSW-02

HR584

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020806

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK572

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

12/07/95 [illegible]

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR584

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020806

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK572

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

12/07/95

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSW-02

HR584

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020806

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/15/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/17/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/20/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

12/06/95 mm

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA - WSE - 02

HR474

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020902

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ881

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. 18 Date Analyzed: 09/21/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	13	~~B~~ U
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-02-6	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-01-5	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

000090

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR474

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020902

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ881

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. 18 Date Analyzed: 09/21/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	1.74	5	J	NJ
2.	UNKNOWN COLUMN BLEED	11.67	7	BJ	R
3. 556672	Cyclotetrasiloxane, octameth	15.74	32	BJN	R

000091

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
KA-WSE-02

HR474

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020902

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK626

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 18 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/23/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	2,2'-oxybis(1-Chloropropane)	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-Di-n-Propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)Methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-Methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	1000	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethyl Phthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	400	U

LMG 11/27/95

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-USE-02

HR474

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020902

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK626

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 18 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/23/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-Methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
86-74-8	Carbazole	400	U
84-74-2	Di-n-Butylphthalate	21	J
206-44-0	Fluoranthene	400	U
129-00-0	Pyrene	400	U
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	400	U
56-55-3	Benzo(a)Anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)Phthalate	23	J
117-84-0	Di-n-Octyl Phthalate	400	U
205-99-2	Benzo(b)Fluoranthene	400	U
207-08-9	Benzo(k)Fluoranthene	400	U
50-32-8	Benzo(a)Pyrene	400	U
193-39-5	Indeno(1,2,3-cd)Pyrene	400	U
53-70-3	Dibenz(a,h)Anthracene	400	U
191-24-2	Benzo(g,h,i)Perylene	400	U

(1) - Cannot be separated from Diphenylamine

RKC 11/27/95

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR474

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020902

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK626

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 18 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/23/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

Number TICs found: 8

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	12.38	250	J	NJ
2.	UNKNOWN	12.80	1300	BJ	R
3.	UNKNOWN	13.90	850	J	NJ
4.	UNKNOWN	22.40	1900	J	
5. 2091294	9-Hexadecenoic acid	25.27	110	JN	
6. 57103	Hexadecanoic acid	25.42	200	JN	
7.	UNKNOWN	30.10	440	BJ	R
8.	UNKNOWN	32.62	99	J	NJ

KKG 11/27/95

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HR474

SDG Number: HQ922

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)
22.63		ALKANE TYPE 4	400
28.43		ALKANE TYPE 4	170
30.05		ALKANE TYPE 4	170
31.55		ALKANE TYPE 4	110
32.93		ALKANE TYPE 4	130

N J

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSE-02

HR474

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020902

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

% Moisture: 18 decanted: (Y/N) N Date Received: 09/15/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/22/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC (Lindane)	2.1	U
76-44-8	Heptachlor	2.1	U
309-00-2	Aldrin	2.1	U
1024-57-3	Heptachlor epoxide	2.1	U
959-98-8	Endosulfan I	2.1	U
60-57-1	Dieldrin	4.0	U
72-55-9	4,4'-DDE	4.0	U
72-20-8	Endrin	4.0	U
33213-65-9	Endosulfan II	4.0	U
72-54-8	4,4'-DDD	4.0	U
1031-07-8	Endosulfan sulfate	4.0	U
50-29-3	4,4'-DDT	4.0	U
72-43-5	Methoxychlor	21	U
53494-70-5	Endrin ketone	4.0	U
7421-93-4	Endrin aldehyde	4.0	U
5103-71-9	alpha-Chlordane	2.1	U
5103-74-2	gamma-Chlordane	2.1	U
8001-35-2	Toxaphene	210	U
12674-11-2	Aroclor-1016	40	U
11104-28-2	Aroclor-1221	82	U
11141-16-5	Aroclor-1232	40	U
53469-21-9	Aroclor-1242	40	U
12672-29-6	Aroclor-1248	40	U
11097-69-1	Aroclor-1254	40	U
11096-82-5	Aroclor-1260	40	U

FKG 11/23/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSW-03

HR475

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020702

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR540

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. Date Analyzed: 09/25/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

FORM I VOA OLM03.0

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR475

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020702

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR540

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. Date Analyzed: 09/25/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

EMC 10/5/95

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSW-03

HR475

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020702

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK543

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSW-03

HR475

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020702

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK543

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q.
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

UJ

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR475

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020702

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK543

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSW1-03

HR475

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020702

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/15/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/17/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/19/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-CUSE-03

HR476

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020903

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ901

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. 23 Date Analyzed: 09/22/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	13 ~~B~~	~~U~~ U5
67-64-1	Acetone	13	U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	13	U
75-34-3	1,1-Dichloroethane	13	U
540-59-0	1,2-Dichloroethene (total)	13	U
67-66-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
78-87-5	1,2-Dichloropropane	13	U
10061-02-6	cis-1,3-Dichloropropene	13	U
79-01-6	Trichloroethene	13	U
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-01-5	trans-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-88-3	Toluene	13	U
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
1330-20-7	Xylene (total)	13	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR476

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020903

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ901

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. 23 Date Analyzed: 09/22/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 556672	Cyclotetrasiloxane, octameth	15.78	25	BJN

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSE-03

HR476

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020903

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GK627

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 23 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/23/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	430	U
111-44-4	bis(2-Chloroethyl)Ether	430	U
95-57-8	2-Chlorophenol	430	U
541-73-1	1,3-Dichlorobenzene	430	U
106-46-7	1,4-Dichlorobenzene	430	U
95-50-1	1,2-Dichlorobenzene	430	U
95-48-7	2-Methylphenol	430	U
108-60-1	2,2'-oxybis(1-Chloropropane)	430	U
106-44-5	4-Methylphenol	430	U
621-64-7	N-Nitroso-Di-n-Propylamine	430	U
67-72-1	Hexachloroethane	430	U
98-95-3	Nitrobenzene	430	U
78-59-1	Isophorone	430	U
88-75-5	2-Nitrophenol	430	U
105-67-9	2,4-Dimethylphenol	430	U
111-91-1	bis(2-Chloroethoxy)Methane	430	U
120-83-2	2,4-Dichlorophenol	430	U
120-82-1	1,2,4-Trichlorobenzene	430	U
91-20-3	Naphthalene	430	U
106-47-8	4-Chloroaniline	430	U
87-68-3	Hexachlorobutadiene	430	U
59-50-7	4-Chloro-3-Methylphenol	430	U
91-57-6	2-Methylnaphthalene	430	U
77-47-4	Hexachlorocyclopentadiene	430	U
88-06-2	2,4,6-Trichlorophenol	430	U
95-95-4	2,4,5-Trichlorophenol	1100	U
91-58-7	2-Chloronaphthalene	430	U
88-74-4	2-Nitroaniline	1100	U
131-11-3	Dimethyl Phthalate	430	U
208-96-8	Acenaphthylene	430	U
606-20-2	2,6-Dinitrotoluene	430	U
99-09-2	3-Nitroaniline	1100	U
83-32-9	Acenaphthene	430	U

FKC 11/27/95

000581

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSE-03

HR476

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020903

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GK627

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 23 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/23/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1100	U
100-02-7	4-Nitrophenol	1100	U
132-64-9	Dibenzofuran	430	U
121-14-2	2,4-Dinitrotoluene	430	U
84-66-2	Diethylphthalate	430	U
7005-72-3	4-Chlorophenyl-phenylether	430	U
86-73-7	Fluorene	430	U
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-Methylphenol	1100	U
86-30-6	N-Nitrosodiphenylamine (1)	430	U
101-55-3	4-Bromophenyl-phenylether	430	U
118-74-1	Hexachlorobenzene	430	U
87-86-5	Pentachlorophenol	1100	U
85-01-8	Phenanthrene	430	U
120-12-7	Anthracene	430	U
86-74-8	Carbazole	430	U
84-74-2	Di-n-Butylphthalate	30	J
206-44-0	Fluoranthene	430	U
129-00-0	Pyrene	430	U
85-68-7	Butylbenzylphthalate	430	U
91-94-1	3,3'-Dichlorobenzidine	430	U
56-55-3	Benzo(a)Anthracene	430	U
218-01-9	Chrysene	430	U
117-81-7	bis(2-Ethylhexyl)Phthalate	430	U
117-84-0	Di-n-Octyl Phthalate	430	U
205-99-2	Benzo(b)Fluoranthene	430	U
207-08-9	Benzo(k)Fluoranthene	430	U
50-32-8	Benzo(a)Pyrene	430	U
193-39-5	Indeno(1,2,3-cd)Pyrene	430	U
53-70-3	Dibenz(a,h)Anthracene	430	U
191-24-2	Benzo(g,h,i)Perylene	430	U

(1) - Cannot be separated from Diphenylamine

000582

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR476

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020903

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GK627

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 23 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/23/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

Number TICs found: 8

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	12.38	460	J	NJ
2.	UNKNOWN	13.90	940	J	
3.	UNKNOWN ACID	18.65	110	J	
4.	UNKNOWN	22.40	230	J	
5. 2091294	9-Hexadecenoic acid	25.28	890	JN	
6. 57103	Hexadecanoic acid	25.42	540	JN	
7.	UNKNOWN	30.10	500	BJ	R
8.	UNKNOWN	39.10	180	J	NJ

KLG 1.27.95

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HR476

SDG Number: HQ922

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)
16.17		ALKANE TYPE 4	220
17.63		ALKANE TYPE 4	180
19.00		ALKANE TYPE 4	110
20.27		ALKANE TYPE 4	210
21.48		ALKANE TYPE 4	460
22.63		ALKANE TYPE 4	240
23.72		ALKANE TYPE 4	180
24.75		ALKANE TYPE 4	130
25.73		ALKANE TYPE 4	140
26.67		ALKANE TYPE 4	130
27.57		ALKANE TYPE 4	200
28.43		ALKANE TYPE 4	290
29.25		ALKANE TYPE 4	180
30.05		ALKANE TYPE 4	280
30.82		ALKANE TYPE 4	93
31.55		ALKANE TYPE 4	180
32.93		ALKANE TYPE 4	160
34.40		ALKANE TYPE 4	94

NJ

✓

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSE-03

HR476

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020903

Sample wt/vol: 30.1 (g/mL) G Lab File ID:

% Moisture: 23 decanted: (Y/N) N Date Received: 09/15/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/22/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.2	U
319-85-7	beta-BHC	2.2	U
319-86-8	delta-BHC	2.2	U
58-89-9	gamma-BHC (Lindane)	2.2	U
76-44-8	Heptachlor	2.2	U
309-00-2	Aldrin	0.32	JP
1024-57-3	Heptachlor epoxide	2.2	U
959-98-8	Endosulfan I	2.2	U
60-57-1	Dieldrin	4.3	U
72-55-9	4,4'-DDE	4.3	U
72-20-8	Endrin	4.3	U
33213-65-9	Endosulfan II	4.3	U
72-54-8	4,4'-DDD	4.3	U
1031-07-8	Endosulfan sulfate	4.3	U
50-29-3	4,4'-DDT	4.3	U
72-43-5	Methoxychlor	22	U
53494-70-5	Endrin ketone	4.3	U
7421-93-4	Endrin aldehyde	4.3	U
5103-71-9	alpha-Chlordane	2.2	U
5103-74-2	gamma-Chlordane	2.2	U
8001-35-2	Toxaphene	220	U
12674-11-2	Aroclor-1016	43	U
11104-28-2	Aroclor-1221	87	U
11141-16-5	Aroclor-1232	43	U
53469-21-9	Aroclor-1242	43	U
12672-29-6	Aroclor-1248	43	U
11097-69-1	Aroclor-1254	43	U
11096-82-5	Aroclor-1260	43	U

NJ

KLC 11/28/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSW-09

HR477

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020703

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR541

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. Date Analyzed: 09/25/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR477

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020703

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR541

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. Date Analyzed: 09/25/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

13

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSW1-09

HR477

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020703

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK544

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSW-09

HR477

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020703

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK544

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

UJ

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR477

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020703

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK544

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSW-09

HR477

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020703

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/15/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/17/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/19/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SCU-24 b

HQ930

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5021103

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR517

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	10	U	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
67-66-3	Chloroform	24	U	m
107-06-2	1,2-Dichloroethane	10	U	
78-93-3	2-Butanone	10	U	
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-02-6	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	10	U	UJ
10061-01-5	trans-1,3-Dichloropropene	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	UJ
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

12/07/95 mr

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HQ930

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5021103

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR517

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

12/07/95 mm

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-24

HQ930

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5021103

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK569

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)Ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	UJ
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
111-91-1	bis(2-Chloroethoxy)Methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	25	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	25	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	
99-09-2	3-Nitroaniline	25	U	
83-32-9	Acenaphthene	10	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-24

HQ930

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5021103

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK569

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HQ930

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5021103

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK569

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

12/07/95 [illegible]

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WGW-01

HR480

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020802

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR510

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

12/07/95

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR480

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020802

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR510

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

12/07/95 mm

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

See Next HR480RE

EPA SAMPLE NO.
RA-WGW-01

HR480

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020802

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK575

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/19/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
108-95-2	Phenol	10	U	R
111-44-4	bis(2-Chloroethyl)Ether	10	U	
95-57-8	2-Chlorophenol	10	U	R
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	R
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	
106-44-5	4-Methylphenol	10	U	R
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	R
105-67-9	2,4-Dimethylphenol	10	U	R
111-91-1	bis(2-Chloroethoxy)Methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	R
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	R
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	R
95-95-4	2,4,5-Trichlorophenol	25	U	R
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	25	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	
99-09-2	3-Nitroaniline	25	U	
83-32-9	Acenaphthene	10	U	

12/07/95

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
R4-WGW-01

HR480

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020802

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK575

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/19/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
51-28-5	2,4-Dinitrophenol	25	U	R
100-02-7	4-Nitrophenol	25	U	R
132-64-9	Dibenzofuran	10	U	
121-14-2	2,4-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	25	U	
534-52-1	4,6-Dinitro-2-Methylphenol	25	U	R
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	25	U	R
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
86-74-8	Carbazole	10	U	
84-74-2	Di-n-Butylphthalate	10	U	
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	
91-94-1	3,3'-Dichlorobenzidine	10	U	
56-55-3	Benzo(a)Anthracene	10	U	
218-01-9	Chrysene	10	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U	
117-84-0	Di-n-Octyl Phthalate	10	U	
205-99-2	Benzo(b)Fluoranthene	10	U	
207-08-9	Benzo(k)Fluoranthene	10	U	
50-32-8	Benzo(a)Pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U	
53-70-3	Dibenz(a,h)Anthracene	10	U	
191-24-2	Benzo(g,h,i)Perylene	10	U	

(1) - Cannot be separated from Diphenylamine

12/07/95

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR480

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020802

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK575

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/19/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

12/07/95 mm

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RAWGW-01

HR480RE

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020802RE

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK622

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/21/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
108-95-2	Phenol	10	U	R
111-44-4	bis(2-Chloroethyl)Ether	10	U	UJ
95-57-8	2-Chlorophenol	10	U	R
541-73-1	1,3-Dichlorobenzene	10	U	UJ
106-46-7	1,4-Dichlorobenzene	10	U	↓
95-50-1	1,2-Dichlorobenzene	10	U	↓
95-48-7	2-Methylphenol	10	U	R
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	UJ
106-44-5	4-Methylphenol	10	U	R
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	UJ
67-72-1	Hexachloroethane	10	U	↓
98-95-3	Nitrobenzene	10	U	↓
78-59-1	Isophorone	10	U	↓
88-75-5	2-Nitrophenol	10	U	R
105-67-9	2,4-Dimethylphenol	10	U	R
111-91-1	bis(2-Chloroethoxy)Methane	10	U	UJ
120-83-2	2,4-Dichlorophenol	10	U	R
120-82-1	1,2,4-Trichlorobenzene	10	U	UJ
91-20-3	Naphthalene	10	U	↓
106-47-8	4-Chloroaniline	10	U	↓
87-68-3	Hexachlorobutadiene	10	U	↓
59-50-7	4-Chloro-3-Methylphenol	10	U	R
91-57-6	2-Methylnaphthalene	10	U	UJ
77-47-4	Hexachlorocyclopentadiene	10	U	UJ
88-06-2	2,4,6-Trichlorophenol	10	U	R
95-95-4	2,4,5-Trichlorophenol	25	U	R
91-58-7	2-Chloronaphthalene	10	U	UJ
88-74-4	2-Nitroaniline	25	U	↓
131-11-3	Dimethyl Phthalate	10	U	↓
208-96-8	Acenaphthylene	10	U	↓
606-20-2	2,6-Dinitrotoluene	10	U	↓
99-09-2	3-Nitroaniline	25	U	↓
83-32-9	Acenaphthene	10	U	↓

12/07/95

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-W6W-01

HR480RE

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020802RE

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK622

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/21/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
51-28-5	2,4-Dinitrophenol	25	U	R
100-02-7	4-Nitrophenol	25	U	R
132-64-9	Dibenzofuran	10	U	UJ
121-14-2	2,4-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	25	U	
534-52-1	4,6-Dinitro-2-Methylphenol	25	U	R
86-30-6	N-Nitrosodiphenylamine (1)	10	U	UJ
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	25	U	R
85-01-8	Phenanthrene	10	U	UJ
120-12-7	Anthracene	10	U	
86-74-8	Carbazole	10	U	
84-74-2	Di-n-Butylphthalate	10	U	
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	
91-94-1	3,3'-Dichlorobenzidine	10	U	
56-55-3	Benzo(a)Anthracene	10	U	
218-01-9	Chrysene	10	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U	
117-84-0	Di-n-Octyl Phthalate	10	U	
205-99-2	Benzo(b)Fluoranthene	10	U	
207-08-9	Benzo(k)Fluoranthene	10	U	
50-32-8	Benzo(a)Pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U	
53-70-3	Dibenz(a,h)Anthracene	10	U	
191-24-2	Benzo(g,h,i)Perylene	10	U	

(1) - Cannot be separated from Diphenylamine

12/07/95 mm

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR480RE

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020802RE

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK622

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/21/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

12/07/95

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WGW-01
HR480

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020802

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/15/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/17/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/20/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
319-84-6	alpha-BHC	0.050	U	
319-85-7	beta-BHC	0.050	U	
319-86-8	delta-BHC	0.050	U	
58-89-9	gamma-BHC (Lindane)	0.050	U	
76-44-8	Heptachlor	0.050	U	
309-00-2	Aldrin	0.050	U	
1024-57-3	Heptachlor epoxide	0.0057	JP	NJ
959-98-8	Endosulfan I	0.050	U	
60-57-1	Dieldrin	0.10	U	
72-55-9	4,4'-DDE	0.10	U	
72-20-8	Endrin	0.10	U	
33213-65-9	Endosulfan II	0.10	U	
72-54-8	4,4'-DDD	0.10	U	
1031-07-8	Endosulfan sulfate	0.10	U	
50-29-3	4,4'-DDT	0.10	U	
72-43-5	Methoxychlor	0.50	U	
53494-70-5	Endrin ketone	0.10	U	
7421-93-4	Endrin aldehyde	0.10	U	
5103-71-9	alpha-Chlordane	0.050	U	
5103-74-2	gamma-Chlordane	0.050	U	
8001-35-2	Toxaphene	5.0	U	
12674-11-2	Aroclor-1016	1.0	U	
11104-28-2	Aroclor-1221	2.0	U	
11141-16-5	Aroclor-1232	1.0	U	
53469-21-9	Aroclor-1242	1.0	U	
12672-29-6	Aroclor-1248	1.0	U	
11097-69-1	Aroclor-1254	1.0	U	
11096-82-5	Aroclor-1260	1.0	U	

12/06/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-W6W-02

HR583

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020805

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR513

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

12/07/95

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR583

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020805

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR513

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

12/07/95

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WGW-02

HR583

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020805

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK571

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)Ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	UJ
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
111-91-1	bis(2-Chloroethoxy)Methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	25	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	25	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	
99-09-2	3-Nitroaniline	25	U	
83-32-9	Acenaphthene	10	U	

12/07/95

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WGW-02

HR583

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020805

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK571

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

12/07/95

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR583

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020805

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK571

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

12/07/95

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WGW-02

HR583

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR479

Matrix: (soil/water) WATER Lab Sample ID: B5020805

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/15/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/17/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/20/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

12/06/95 mm

DATA VALIDATION QUALIFIER CODES

NATIONAL FUNCTIONAL GUIDELINES

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSQ-01

HR581

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ921

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. 25 Date Analyzed: 09/23/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	13	U	
74-83-9	Bromomethane	13	U	
75-01-4	Vinyl Chloride	13	U	
75-00-3	Chloroethane	13	U	
75-09-2	Methylene Chloride	13	~~BJ~~ U	UJ
67-64-1	Acetone	13	U	
75-15-0	Carbon Disulfide	13	U	
75-35-4	1,1-Dichloroethene	13	U	
75-34-3	1,1-Dichloroethane	13	U	
540-59-0	1,2-Dichloroethene (total)	13	U	
67-66-3	Chloroform	13	U	
107-06-2	1,2-Dichloroethane	13	U	
78-93-3	2-Butanone	13	U	
71-55-6	1,1,1-Trichloroethane	13	U	
56-23-5	Carbon Tetrachloride	13	U	
75-27-4	Bromodichloromethane	13	U	
78-87-5	1,2-Dichloropropane	13	U	
10061-02-6	cis-1,3-Dichloropropene	13	U	
79-01-6	Trichloroethene	13	U	
124-48-1	Dibromochloromethane	13	U	
79-00-5	1,1,2-Trichloroethane	13	U	
71-43-2	Benzene	13	U	
10061-01-5	trans-1,3-Dichloropropene	13	U	
75-25-2	Bromoform	13	U	
108-10-1	4-Methyl-2-Pentanone	13	U	
591-78-6	2-Hexanone	13	U	UJ
127-18-4	Tetrachloroethene	13	U	
79-34-5	1,1,2,2-Tetrachloroethane	13	U	
108-88-3	Toluene	13	U	
108-90-7	Chlorobenzene	13	U	
100-41-4	Ethylbenzene	13	U	
100-42-5	Styrene	13	U	
1330-20-7	Xylene (total)	13	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR581

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ921

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. 25 Date Analyzed: 09/23/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 556672	Cyclotetrasiloxane, octameth	15.73	19	BJN

R

12/04/95 mm

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WS0-02

HR582

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ922

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. 38 Date Analyzed: 09/23/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR582

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ922

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. 38 Date Analyzed: 09/23/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 556672	Cyclotetrasiloxane, octameth	15.71	16	BJN

R

12/04/95

FORM I VOA-TIC

OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-LUSO-03

HR566

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020611

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ871

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 19 Date Analyzed: 09/21/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	18	~~B~~ U J
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-02-6	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-01-5	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	2	J
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR566

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020611

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ871

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 19 Date Analyzed: 09/21/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 556672	Cyclotetrasiloxane, octameth	15.73	57	BJN

R

FORM I VOA-TIC

WSO

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-[illegible]-004

HR573

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020615

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ875

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 19 Date Analyzed: 09/21/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	24	B
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-02-6	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-01-5	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

000247

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR573

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020615

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ875

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 19 Date Analyzed: 09/21/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	1.75	5	J	NS
2. 556672	Cyclotetrasiloxane, octameth	15.73	26	BJN	R

000248

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WUS0-05

HQ922

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020601

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ840

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 13 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	11	U	
74-83-9	Bromomethane	11	U	
75-01-4	Vinyl Chloride	11	U	
75-00-3	Chloroethane	11	U	
75-09-2	Methylene Chloride	12	~~B~~	uJ
67-64-1	Acetone	11	U	
75-15-0	Carbon Disulfide	11	U	uJ
75-35-4	1,1-Dichloroethene	11	U	
75-34-3	1,1-Dichloroethane	11	U	
540-59-0	1,2-Dichloroethene (total)	11	U	
67-66-3	Chloroform	11	U	
107-06-2	1,2-Dichloroethane	11	U	
78-93-3	2-Butanone	11	U	
71-55-6	1,1,1-Trichloroethane	11	U	
56-23-5	Carbon Tetrachloride	11	U	
75-27-4	Bromodichloromethane	11	U	
78-87-5	1,2-Dichloropropane	11	U	
10061-02-6	cis-1,3-Dichloropropene	11	U	
79-01-6	Trichloroethene	11	U	
124-48-1	Dibromochloromethane	11	U	
79-00-5	1,1,2-Trichloroethane	11	U	
71-43-2	Benzene	11	U	
10061-01-5	trans-1,3-Dichloropropene	11	U	
75-25-2	Bromoform	11	U	
108-10-1	4-Methyl-2-Pentanone	11	U	
591-78-6	2-Hexanone	11	U	
127-18-4	Tetrachloroethene	11	U	
79-34-5	1,1,2,2-Tetrachloroethane	11	U	
108-88-3	Toluene	11	U	
108-90-7	Chlorobenzene	11	U	
100-41-4	Ethylbenzene	11	U	
100-42-5	Styrene	11	U	
1330-20-7	Xylene (total)	11	U	

000060

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HQ922

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020601

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ840

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 13 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN COLUMN BLEED	11.68	7	BJ	R
2. 556672	Cyclotetrasiloxane, octameth	15.72	24	BJN	R

000061

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-WSD-06

HQ923

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020602

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ841

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 20 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	12	U	
74-83-9	Bromomethane	12	U	
75-01-4	Vinyl Chloride	12	U	
75-00-3	Chloroethane	12	U	
75-09-2	Methylene Chloride	22	~~B~~	U5
67-64-1	Acetone	12	U	
75-15-0	Carbon Disulfide	2	J	J
75-35-4	1,1-Dichloroethene	12	U	
75-34-3	1,1-Dichloroethane	12	U	
540-59-0	1,2-Dichloroethene (total)	12	U	
67-66-3	Chloroform	12	U	
107-06-2	1,2-Dichloroethane	12	U	
78-93-3	2-Butanone	12	U	
71-55-6	1,1,1-Trichloroethane	12	U	
56-23-5	Carbon Tetrachloride	12	U	
75-27-4	Bromodichloromethane	12	U	
78-87-5	1,2-Dichloropropane	12	U	
10061-02-6	cis-1,3-Dichloropropene	12	U	
79-01-6	Trichloroethene	12	U	
124-48-1	Dibromochloromethane	12	U	
79-00-5	1,1,2-Trichloroethane	12	U	
71-43-2	Benzene	12	U	
10061-01-5	trans-1,3-Dichloropropene	12	U	
75-25-2	Bromoform	12	U	
108-10-1	4-Methyl-2-Pentanone	12	U	
591-78-6	2-Hexanone	12	U	
127-18-4	Tetrachloroethene	1	J	
79-34-5	1,1,2,2-Tetrachloroethane	12	U	
108-88-3	Toluene	12	U	
108-90-7	Chlorobenzene	12	U	
100-41-4	Ethylbenzene	12	U	
100-42-5	Styrene	12	U	
1330-20-7	Xylene (total)	12	U	

000070

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HQ923

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020602

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ841

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 20 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 556672	Cyclotetrasiloxane, octameth	15.73	30	BJN

000071

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA - WSO-07

HQ924

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020603

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ842

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 15 Date Analyzed: 09/20/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	12	U	
74-83-9	Bromomethane	12	U	
75-01-4	Vinyl Chloride	12	U	
75-00-3	Chloroethane	12	U	
75-09-2	Methylene Chloride	13	B	UJ
67-64-1	Acetone	12	U	
75-15-0	Carbon Disulfide	12	U	UJ
75-35-4	1,1-Dichloroethene	12	U	
75-34-3	1,1-Dichloroethane	12	U	
540-59-0	1,2-Dichloroethene (total)	12	U	
67-66-3	Chloroform	12	U	
107-06-2	1,2-Dichloroethane	12	U	
78-93-3	2-Butanone	12	U	
71-55-6	1,1,1-Trichloroethane	12	U	
56-23-5	Carbon Tetrachloride	12	U	
75-27-4	Bromodichloromethane	12	U	
78-87-5	1,2-Dichloropropane	12	U	
10061-02-6	cis-1,3-Dichloropropene	12	U	
79-01-6	Trichloroethene	12	U	
124-48-1	Dibromochloromethane	12	U	
79-00-5	1,1,2-Trichloroethane	12	U	
71-43-2	Benzene	12	U	
10061-01-5	trans-1,3-Dichloropropene	12	U	
75-25-2	Bromoform	12	U	
108-10-1	4-Methyl-2-Pentanone	12	U	
591-78-6	2-Hexanone	12	U	
127-18-4	Tetrachloroethene	12	U	
79-34-5	1,1,2,2-Tetrachloroethane	12	U	
108-88-3	Toluene	12	U	
108-90-7	Chlorobenzene	12	U	
100-41-4	Ethylbenzene	12	U	
100-42-5	Styrene	12	U	
1330-20-7	Xylene (total)	12	U	

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SO-01

HR569

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020613

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ873

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 26 Date Analyzed: 09/21/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	149	~~BU~~ UJ
67-64-1	Acetone	14	U
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	14	U
75-34-3	1,1-Dichloroethane	14	U
540-59-0	1,2-Dichloroethene (total)	14	U
67-66-3	Chloroform	14	U
107-06-2	1,2-Dichloroethane	14	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	14	U
56-23-5	Carbon Tetrachloride	14	U
75-27-4	Bromodichloromethane	14	U
78-87-5	1,2-Dichloropropane	14	U
10061-02-6	cis-1,3-Dichloropropene	14	U
79-01-6	Trichloroethene	14	U
124-48-1	Dibromochloromethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
71-43-2	Benzene	14	U
10061-01-5	trans-1,3-Dichloropropene	14	U
75-25-2	Bromoform	14	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	14	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
108-88-3	Toluene	14	U
108-90-7	Chlorobenzene	14	U
100-41-4	Ethylbenzene	14	U
100-42-5	Styrene	14	U
1330-20-7	Xylene (total)	14	U

000226

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR569

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020613

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ873

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 26 Date Analyzed: 09/21/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	1.73	7	J	NJ
2.	UNKNOWN COLUMN BLEED	11.69	7	BJ	R
3. 556672	Cyclotetrasiloxane, octameth	15.73	32	BJN	R

000227

13

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SO-01

HR569

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020613

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK589

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 26 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	450	U	
111-44-4	bis(2-Chloroethyl)Ether	450	U	
95-57-8	2-Chlorophenol	450	U	
541-73-1	1,3-Dichlorobenzene	450	U	
106-46-7	1,4-Dichlorobenzene	450	U	
95-50-1	1,2-Dichlorobenzene	450	U	
95-48-7	2-Methylphenol	450	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	450	U	uJ
106-44-5	4-Methylphenol	450	U	
621-64-7	N-Nitroso-Di-n-Propylamine	450	U	uJ
67-72-1	Hexachloroethane	450	U	
98-95-3	Nitrobenzene	450	U	
78-59-1	Isophorone	450	U	
88-75-5	2-Nitrophenol	450	U	
105-67-9	2,4-Dimethylphenol	450	U	
111-91-1	bis(2-Chloroethoxy)Methane	450	U	
120-83-2	2,4-Dichlorophenol	450	U	
120-82-1	1,2,4-Trichlorobenzene	450	U	
91-20-3	Naphthalene	450	U	
106-47-8	4-Chloroaniline	450	U	
87-68-3	Hexachlorobutadiene	450	U	
59-50-7	4-Chloro-3-Methylphenol	450	U	
91-57-6	2-Methylnaphthalene	450	U	
77-47-4	Hexachlorocyclopentadiene	450	U	
88-06-2	2,4,6-Trichlorophenol	450	U	
95-95-4	2,4,5-Trichlorophenol	1100	U	
91-58-7	2-Chloronaphthalene	450	U	
88-74-4	2-Nitroaniline	1100	U	
131-11-3	Dimethyl Phthalate	450	U	
208-96-8	Acenaphthylene	450	U	
606-20-2	2,6-Dinitrotoluene	450	U	
99-09-2	3-Nitroaniline	1100	U	
83-32-9	Acenaphthene	450	U	

FKG 11/17/95

000850

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SO-01

HR569

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020613

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK589

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 26 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1100	U
100-02-7	4-Nitrophenol	1100	U
132-64-9	Dibenzofuran	450	U
121-14-2	2,4-Dinitrotoluene	450	U
84-66-2	Diethylphthalate	450	U
7005-72-3	4-Chlorophenyl-phenylether	450	U
86-73-7	Fluorene	450	U
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-Methylphenol	1100	U
86-30-6	N-Nitrosodiphenylamine (1)	450	U
101-55-3	4-Bromophenyl-phenylether	450	U
118-74-1	Hexachlorobenzene	450	U
87-86-5	Pentachlorophenol	1100	U
85-01-8	Phenanthrene	450	U
120-12-7	Anthracene	450	U
86-74-8	Carbazole	450	U
84-74-2	Di-n-Butylphthalate	450	U
206-44-0	Fluoranthene	450	U
129-00-0	Pyrene	450	U
85-68-7	Butylbenzylphthalate	450	U
91-94-1	3,3'-Dichlorobenzidine	450	U
56-55-3	Benzo(a)Anthracene	450	U
218-01-9	Chrysene	450	U
117-81-7	bis(2-Ethylhexyl)Phthalate	50	J
117-84-0	Di-n-Octyl Phthalate	450	U
205-99-2	Benzo(b)Fluoranthene	450	U
207-08-9	Benzo(k)Fluoranthene	450	U
50-32-8	Benzo(a)Pyrene	450	U
193-39-5	Indeno(1,2,3-cd)Pyrene	450	U
53-70-3	Dibenz(a,h)Anthracene	450	U
191-24-2	Benzo(g,h,i)Perylene	450	U

uJ

(1) - Cannot be separated from Diphenylamine

000851

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR569

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020613

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK589

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 26 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.1

Number TICs found: 22

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	12.57	260	J
2.	UNKNOWN	12.97	2200	J
3.	UNKNOWN	14.08	310	J
4.	UNKNOWN	16.10	180	J
5.	UNKNOWN	18.87	91	J
6. 57103	Hexadecanoic acid	25.62	120	JN
7.	UNKNOWN	26.42	130	J
8.	UNKNOWN	29.78	110	J
9.	UNKNOWN	30.58	110	J
10.	UNKNOWN	31.35	200	J
11.	UNKNOWN	31.85	220	J
12.	UNKNOWN	32.10	110	J
13.	UNKNOWN	32.82	580	J
14.	UNKNOWN	33.27	560	J
15.	UNKNOWN	33.52	100	J
16.	UNKNOWN	35.48	150	J
17.	UNKNOWN	38.43	650	J
18.	UNKNOWN	38.78	190	J
19.	UNKNOWN	39.15	280	J
20.	UNKNOWN	39.40	140	J
21.	UNKNOWN	40.43	1900	J
22.	UNKNOWN	40.62	1200	J

NJ

000852

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HR569

SDG Number: HQ922

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)
26.87		ALKANE TYPE 4	140
27.77		ALKANE TYPE 4	190
28.63		ALKANE TYPE 4	950
29.45		ALKANE TYPE 4	360
30.25		ALKANE TYPE 4	1500
31.02		ALKANE TYPE 4	510
31.75		ALKANE TYPE 4	2300
32.45		ALKANE TYPE 4	400
33.13		ALKANE TYPE 4	750
33.85		ALKANE TYPE 4	250
34.67		ALKANE TYPE 4	2900
35.58		ALKANE TYPE 4	160
36.63		ALKANE TYPE 4	580

NJ

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RLC 11/27/95

RECRA ENVIRONMENTAL INC.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SO-01

HR569

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020613

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

% Moisture: 26 decanted: (Y/N) N Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/15/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/22/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.1 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
319-84-6	alpha-BHC	2.3	U	
319-85-7	beta-BHC	2.3	U	
319-86-8	delta-BHC	2.3	U	
58-89-9	gamma-BHC (Lindane)	2.3	U	
76-44-8	Heptachlor	2.3	U	
309-00-2	Aldrin	2.3	U	
1024-57-3	Heptachlor epoxide	2.3	U	
959-98-8	Endosulfan I	2.3	U	
60-57-1	Dieldrin	4.5	U	
72-55-9	4,4'-DDE	4.5	U	
72-20-8	Endrin	4.5	U	
33213-65-9	Endosulfan II	4.5	U	
72-54-8	4,4'-DDD	4.5	U	
1031-07-8	Endosulfan sulfate	0.48	J	NJ
50-29-3	4,4'-DDT	0.52	J	NJ
72-43-5	Methoxychlor	23	U	
53494-70-5	Endrin ketone	4.5	U	
7421-93-4	Endrin aldehyde	4.5	U	
5103-71-9	alpha-Chlordane	2.3	U	
5103-74-2	gamma-Chlordane	2.3	U	
8001-35-2	Toxaphene	230	U	
12674-11-2	Aroclor-1016	45	U	
11104-28-2	Aroclor-1221	91	U	
11141-16-5	Aroclor-1232	45	U	
53469-21-9	Aroclor-1242	45	U	
12672-29-6	Aroclor-1248	45	U	
11097-69-1	Aroclor-1254	45	U	
11096-82-5	Aroclor-1260	45	U	

RLC 11/28/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SO-02

HR578

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020617

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ900

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 15 Date Analyzed: 09/22/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	12 8	~~B~~
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-02-6	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-01-5	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

000269

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR578

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020617

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ900

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. 15 Date Analyzed: 09/22/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN COLUMN BLEED	11.67	8	J
2. 556672	Cyclotetrasiloxane, octameth	15.74	34	BJN

N.J.
R

000270

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SO-02

HR578

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020617

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK590

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 15 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	390	U	
111-44-4	bis(2-Chloroethyl)Ether	390	U	
95-57-8	2-Chlorophenol	390	U	
541-73-1	1,3-Dichlorobenzene	390	U	
106-46-7	1,4-Dichlorobenzene	390	U	
95-50-1	1,2-Dichlorobenzene	390	U	
95-48-7	2-Methylphenol	390	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	390	U	uJ
106-44-5	4-Methylphenol	390	U	
621-64-7	N-Nitroso-Di-n-Propylamine	390	U	uJ
67-72-1	Hexachloroethane	390	U	
98-95-3	Nitrobenzene	390	U	
78-59-1	Isophorone	390	U	
88-75-5	2-Nitrophenol	390	U	
105-67-9	2,4-Dimethylphenol	390	U	
111-91-1	bis(2-Chloroethoxy)Methane	390	U	
120-83-2	2,4-Dichlorophenol	390	U	
120-82-1	1,2,4-Trichlorobenzene	390	U	
91-20-3	Naphthalene	390	U	
106-47-8	4-Chloroaniline	390	U	
87-68-3	Hexachlorobutadiene	390	U	
59-50-7	4-Chloro-3-Methylphenol	390	U	
91-57-6	2-Methylnaphthalene	390	U	
77-47-4	Hexachlorocyclopentadiene	390	U	
88-06-2	2,4,6-Trichlorophenol	390	U	
95-95-4	2,4,5-Trichlorophenol	980	U	
91-58-7	2-Chloronaphthalene	390	U	
88-74-4	2-Nitroaniline	980	U	
131-11-3	Dimethyl Phthalate	390	U	
208-96-8	Acenaphthylene	390	U	
606-20-2	2,6-Dinitrotoluene	390	U	
99-09-2	3-Nitroaniline	980	U	
83-32-9	Acenaphthene	390	U	

AKC 11/27/95

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SR02

HR578

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020617

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK590

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 15 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	980	U
100-02-7	4-Nitrophenol	980	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	980	U
534-52-1	4,6-Dinitro-2-Methylphenol	980	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	980	U
85-01-8	Phenanthrene	64	J
120-12-7	Anthracene	40	J
86-74-8	Carbazole	390	U
84-74-2	Di-n-Butylphthalate	58	J
206-44-0	Fluoranthene	730	
129-00-0	Pyrene	750	
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	390	U
56-55-3	Benzo(a)Anthracene	550	
218-01-9	Chrysene	550	
117-81-7	bis(2-Ethylhexyl)Phthalate	~~68~~	J
117-84-0	Di-n-Octyl Phthalate	390	U
205-99-2	Benzo(b)Fluoranthene	500	
207-08-9	Benzo(k)Fluoranthene	390	
50-32-8	Benzo(a)Pyrene	530	
193-39-5	Indeno(1,2,3-cd)Pyrene	280	J
53-70-3	Dibenz(a,h)Anthracene	150	J
191-24-2	Benzo(g,h,i)Perylene	330	J

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR578

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020617

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK590

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: 15 decanted: (Y/N) N Date Extracted: 09/15/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

Number TICs found: 24

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	12.65	210	J
2.	UNKNOWN	13.00	1800	J
3.	UNKNOWN	14.08	340	J
4.	UNKNOWN	14.13	650	J
5.	UNKNOWN	16.10	330	J
6.	UNKNOWN ACID	18.87	240	J
7.	UNKNOWN PAH MW192	25.93	150	J
8.	UNKNOWN PAH MW218	28.50	110	J
9.	UNKNOWN PAH MW216	28.77	270	J
10.	UNKNOWN PAH MW216	28.95	130	J
11.	UNKNOWN PAH	29.03	150	J
12.	UNKNOWN	29.78	91	J
13.	UNKNOWN	30.28	1100	BJ
14.	UNKNOWN PAH MW226	30.43	220	J
15.	UNKNOWN PAH MW228	31.18	100	J
16.	UNKNOWN	31.35	140	J
17.	UNKNOWN PAH MW242	31.85	310	J
18.	UNKNOWN	31.93	87	J
19.	UNKNOWN PAH	32.18	110	J
20.	UNKNOWN	32.80	760	J
21.	UNKNOWN	33.25	610	J
22.	UNKNOWN PAH MW252	34.03	140	J
23.	UNKNOWN PAH MW278	37.90	110	J
24.	UNKNOWN	38.42	260	J

NJ

NJ

REG 11/27/95

000989

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HR578

SDG Number: HQ922

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)
22.88		ALKANE TYPE 4	160
26.87		ALKANE TYPE 4	130
27.77		ALKANE TYPE 4	180
28.63		ALKANE TYPE 4	620
29.45		ALKANE TYPE 4	250
30.25		ALKANE TYPE 4	1100
31.75		ALKANE TYPE 4	1400
32.45		ALKANE TYPE 4	490
33.05		ALKANE TYPE 4	84
33.15		ALKANE TYPE 4	2200
33.85		ALKANE TYPE 4	260
34.53		ALKANE TYPE 4	90
34.67		ALKANE TYPE 4	3800
35.57		ALKANE TYPE 4	180
36.18		ALKANE TYPE 4	200
36.63		ALKANE TYPE 4	500

NJ

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SO-02

HR578

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HQ922

Matrix: (soil/water) SOIL Lab Sample ID: B5020617

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

% Moisture: 15 decanted: (Y/N) N Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/15/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/22/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
319-84-6	alpha-BHC	2.0	U	
319-85-7	beta-BHC	2.0	U	
319-86-8	delta-BHC	2.0	U	
58-89-9	gamma-BHC (Lindane)	2.0	U	
76-44-8	Heptachlor	0.21	JP	NJ
309-00-2	Aldrin	1.6	JP	NJ
1024-57-3	Heptachlor epoxide	3.2	P	NJ
959-98-8	Endosulfan I	2.2	P	NJ
60-57-1	Dieldrin	3.9	U	
72-55-9	4,4'-DDE	4.4		
72-20-8	Endrin	1.8	JP	NJ
33213-65-9	Endosulfan II	3.9	U	
72-54-8	4,4'-DDD	0.52	JP	NJ
1031-07-8	Endosulfan sulfate	0.76	JP	NJ
50-29-3	4,4'-DDT	0.82	JP	NJ
72-43-5	Methoxychlor	20	U	
53494-70-5	Endrin ketone	3.9	P	NJ
7421-93-4	Endrin aldehyde	3.9	U	
5103-71-9	alpha-Chlordane	2.1	P	NJ
5103-74-2	gamma-Chlordane	0.33	JP	NJ
8001-35-2	Toxaphene	200	U	
12674-11-2	Aroclor-1016	39	U	
11104-28-2	Aroclor-1221	79	U	
11141-16-5	Aroclor-1232	39	U	
53469-21-9	Aroclor-1242	39	U	
12672-29-6	Aroclor-1248	39	U	
11097-69-1	Aroclor-1254	39	U	
11096-82-5	Aroclor-1260	39	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-50-03

HR484

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ905

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. 19 Date Analyzed: 09/22/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	12 ~~4~~	~~BJ~~ U UJ
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-02-6	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-01-5	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

12/04/95

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR484

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ905

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. 19 Date Analyzed: 09/22/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 556672	Cyclotetrasiloxane, octameth	15.76	21	BJN

R

12/04/95

FORM I VOA-TIC OLM03.0

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
KA-SO-03

HR484

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK636

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 19 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	410	U	
111-44-4	bis(2-Chloroethyl)Ether	410	U	
95-57-8	2-Chlorophenol	410	U	
541-73-1	1,3-Dichlorobenzene	410	U	
106-46-7	1,4-Dichlorobenzene	410	U	
95-50-1	1,2-Dichlorobenzene	410	U	
95-48-7	2-Methylphenol	410	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	410	U	UJ
106-44-5	4-Methylphenol	410	U	
621-64-7	N-Nitroso-Di-n-Propylamine	410	U	
67-72-1	Hexachloroethane	410	U	
98-95-3	Nitrobenzene	410	U	
78-59-1	Isophorone	410	U	
88-75-5	2-Nitrophenol	410	U	
105-67-9	2,4-Dimethylphenol	410	U	
111-91-1	bis(2-Chloroethoxy)Methane	410	U	
120-83-2	2,4-Dichlorophenol	410	U	
120-82-1	1,2,4-Trichlorobenzene	410	U	
91-20-3	Naphthalene	410	U	
106-47-8	4-Chloroaniline	410	U	
87-68-3	Hexachlorobutadiene	410	U	UJ
59-50-7	4-Chloro-3-Methylphenol	410	U	
91-57-6	2-Methylnaphthalene	410	U	
77-47-4	Hexachlorocyclopentadiene	410	U	
88-06-2	2,4,6-Trichlorophenol	410	U	
95-95-4	2,4,5-Trichlorophenol	1000	U	
91-58-7	2-Chloronaphthalene	410	U	
88-74-4	2-Nitroaniline	1000	U	
131-11-3	Dimethyl Phthalate	410	U	
208-96-8	Acenaphthylene	410	U	
606-20-2	2,6-Dinitrotoluene	410	U	
99-09-2	3-Nitroaniline	1000	U	
83-32-9	Acenaphthene	410	U	

12/04/95

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-50-03

HR484

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK636

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 19 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-Methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-Butylphthalate	410	U
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	U
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	410	U
56-55-3	Benzo(a)Anthracene	410	U
218-01-9	Chrysene	410	U
117-81-7	bis(2-Ethylhexyl)Phthalate	410	U
117-84-0	Di-n-Octyl Phthalate	410	U
205-99-2	Benzo(b)Fluoranthene	410	U
207-08-9	Benzo(k)Fluoranthene	410	U
50-32-8	Benzo(a)Pyrene	410	U
193-39-5	Indeno(1,2,3-cd)Pyrene	410	U
53-70-3	Dibenz(a,h)Anthracene	410	U
191-24-2	Benzo(g,h,i)Perylene	410	U

(1) - Cannot be separated from Diphenylamine

000171 12/04/95 mm

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR484

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK636

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 19 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.9

Number TICs found: 22

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	12.38	480	J	NJ
2.	UNKNOWN	12.80	1700	J	NJ
3.	UNKNOWN	13.07	100	J	NJ
4.	UNKNOWN	13.92	930	J	
5.	UNKNOWN	14.03	330	J	
6.	UNKNOWN	14.27	170	J	
7.	UNKNOWN ACID	18.67	100	J	
8. 2091294	9-Hexadecenoic acid	25.35	320	JN	
9. 57103	Hexadecanoic acid	25.42	360	JN	
10.	UNKNOWN	29.58	130	J	
11.	UNKNOWN	30.10	1100	BJ	R
12.	UNKNOWN	30.93	110	J	NJ
13.	UNKNOWN	31.15	220	J	
14.	UNKNOWN	31.65	640	J	
15.	UNKNOWN	32.60	550	J	
16.	UNKNOWN	33.07	1300	J	
17.	UNKNOWN	34.58	470	J	
18.	UNKNOWN	37.98	410	J	
19.	UNKNOWN	39.83	460	J	
20.	UNKNOWN	40.02	220	J	
21.	UNKNOWN	40.15	350	J	
22.	UNKNOWN	40.88	510	J	

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HR484

SDG Number: HR481

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)	
19.80		ALKANE TYPE 4	93	NJ
22.63		ALKANE TYPE 4	100	
22.70		ALKANE TYPE 4	210	
26.67		ALKANE TYPE 4	150	
27.57		ALKANE TYPE 4	570	
28.43		ALKANE TYPE 4	1100	
29.25		ALKANE TYPE 4	270	
30.05		ALKANE TYPE 4	1400	NJ
30.82		ALKANE TYPE 4	220	NJ
31.55		ALKANE TYPE 4	1100	
32.25		ALKANE TYPE 4	220	
32.95		ALKANE TYPE 4	1800	
33.63		ALKANE TYPE 4	160	
34.40		ALKANE TYPE 4	1700	
36.27		ALKANE TYPE 4	400	

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

12/04/95 mm

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-50-03

HR484

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021002

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

% Moisture: 19 decanted: (Y/N) N Date Received: 09/15/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/23/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.9 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
319-84-6	alpha-BHC	2.1	U	
319-85-7	beta-BHC	2.1	U	
319-86-8	delta-BHC	2.1	U	
58-89-9	gamma-BHC (Lindane)	2.1	U	
76-44-8	Heptachlor	2.1	U	
309-00-2	Aldrin	0.40	JP	NJ
1024-57-3	Heptachlor epoxide	0.29	JP	NJ
959-98-8	Endosulfan I	2.1	U	
60-57-1	Dieldrin	4.1	U	
72-55-9	4,4'-DDE	0.43	JP	NJ
72-20-8	Endrin	4.1	U	
33213-65-9	Endosulfan II	4.1	U	
72-54-8	4,4'-DDD	4.1	U	
1031-07-8	Endosulfan sulfate	4.1	U	
50-29-3	4,4'-DDT	1.1	JP	NJ
72-43-5	Methoxychlor	21	U	
53494-70-5	Endrin ketone	4.1	U	
7421-93-4	Endrin aldehyde	4.1	U	
5103-71-9	alpha-Chlordane	2.1	U	
5103-74-2	gamma-Chlordane	2.1	U	
8001-35-2	Toxaphene	210	U	
12674-11-2	Aroclor-1016	41	U	
11104-28-2	Aroclor-1221	83	U	
11141-16-5	Aroclor-1232	41	U	
53469-21-9	Aroclor-1242	41	U	
12672-29-6	Aroclor-1248	41	U	
11097-69-1	Aroclor-1254	41	U	
11096-82-5	Aroclor-1260	41	U	

12/05/95 [illegible]

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-50-04

HR485

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021003

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ920

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. 20 Date Analyzed: 09/23/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	12	U	
74-83-9	Bromomethane	12	U	
75-01-4	Vinyl Chloride	12	U	
75-00-3	Chloroethane	12	U	
75-09-2	Methylene Chloride	12 ~~4~~ ~~BJ~~	U	UJ
67-64-1	Acetone	12	U	
75-15-0	Carbon Disulfide	12	U	
75-35-4	1,1-Dichloroethene	12	U	
75-34-3	1,1-Dichloroethane	12	U	
540-59-0	1,2-Dichloroethene (total)	12	U	
67-66-3	Chloroform	12	U	
107-06-2	1,2-Dichloroethane	12	U	
78-93-3	2-Butanone	12	U	
71-55-6	1,1,1-Trichloroethane	12	U	
56-23-5	Carbon Tetrachloride	12	U	
75-27-4	Bromodichloromethane	12	U	
78-87-5	1,2-Dichloropropane	12	U	
10061-02-6	cis-1,3-Dichloropropene	12	U	
79-01-6	Trichloroethene	12	U	
124-48-1	Dibromochloromethane	12	U	
79-00-5	1,1,2-Trichloroethane	12	U	
71-43-2	Benzene	12	U	
10061-01-5	trans-1,3-Dichloropropene	12	U	
75-25-2	Bromoform	12	U	
108-10-1	4-Methyl-2-Pentanone	12	U	
591-78-6	2-Hexanone	12	U	UJ
127-18-4	Tetrachloroethene	12	U	
79-34-5	1,1,2,2-Tetrachloroethane	12	U	
108-88-3	Toluene	12	U	
108-90-7	Chlorobenzene	12	U	
100-41-4	Ethylbenzene	12	U	
100-42-5	Styrene	12	U	
1330-20-7	Xylene (total)	12	U	

12/04/95

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR485

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021003

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ920

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. 20 Date Analyzed: 09/23/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 556672	Cyclotetrasiloxane, octameth	15.72	13	BJN

R

FORM I VOA-TIC OLM03.0

000104 12/04/95

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SO-04

HR485

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021003

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GK637

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 20 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	410	U	
111-44-4	bis(2-Chloroethyl)Ether	410	U	
95-57-8	2-Chlorophenol	410	U	
541-73-1	1,3-Dichlorobenzene	410	U	
106-46-7	1,4-Dichlorobenzene	410	U	
95-50-1	1,2-Dichlorobenzene	410	U	
95-48-7	2-Methylphenol	410	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	410	U	UJ
106-44-5	4-Methylphenol	410	U	
621-64-7	N-Nitroso-Di-n-Propylamine	410	U	
67-72-1	Hexachloroethane	410	U	
98-95-3	Nitrobenzene	410	U	
78-59-1	Isophorone	410	U	
88-75-5	2-Nitrophenol	410	U	
105-67-9	2,4-Dimethylphenol	410	U	
111-91-1	bis(2-Chloroethoxy)Methane	410	U	
120-83-2	2,4-Dichlorophenol	410	U	
120-82-1	1,2,4-Trichlorobenzene	410	U	
91-20-3	Naphthalene	31	J	
106-47-8	4-Chloroaniline	410	U	
87-68-3	Hexachlorobutadiene	410	U	UJ
59-50-7	4-Chloro-3-Methylphenol	410	U	
91-57-6	2-Methylnaphthalene	46	J	
77-47-4	Hexachlorocyclopentadiene	410	U	
88-06-2	2,4,6-Trichlorophenol	410	U	
95-95-4	2,4,5-Trichlorophenol	1000	U	
91-58-7	2-Chloronaphthalene	410	U	
88-74-4	2-Nitroaniline	1000	U	
131-11-3	Dimethyl Phthalate	410	U	
208-96-8	Acenaphthylene	410	U	
606-20-2	2,6-Dinitrotoluene	410	U	
99-09-2	3-Nitroaniline	1000	U	
83-32-9	Acenaphthene	410	U	

000519 12/04/95 mm

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA50-04

HR485

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021003

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GK637

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 20 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-Methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	85	J
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-Butylphthalate	410	U
206-44-0	Fluoranthene	100	J
129-00-0	Pyrene	86	J
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	410	U
56-55-3	Benzo(a)Anthracene	94	J
218-01-9	Chrysene	95	J
117-81-7	bis(2-Ethylhexyl)Phthalate	23	J
117-84-0	Di-n-Octyl Phthalate	410	U
205-99-2	Benzo(b)Fluoranthene	85	J
207-08-9	Benzo(k)Fluoranthene	97	J
50-32-8	Benzo(a)Pyrene	74	J
193-39-5	Indeno(1,2,3-cd)Pyrene	65	J
53-70-3	Dibenz(a,h)Anthracene	34	J
191-24-2	Benzo(g,h,i)Perylene	79	J

(1) - Cannot be separated from Diphenylamine

12/04/95 mm

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR485

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021003

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GK637

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: 20 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.4

Number TICs found: 21

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	12.38	300	J	NJ
2.	UNKNOWN	12.80	1100	J	NJ
3.	UNKNOWN	13.92	960	J	NJ
4.	UNKNOWN	14.27	93	J	
5.	UNKNOWN	20.78	91	J	
6.	UNKNOWN TRIMETHYLNAPHTHALENE	21.55	94	J	
7. 2091294	9-Hexadecenoic acid	25.35	380	JN	
8. 57103	Hexadecanoic acid	25.42	860	JN	
9.	UNKNOWN	25.65	150	J	
10. 57114	Octadecanoic acid	27.30	180	JN	
11.	UNKNOWN	30.12	720	BJ	R
12.	UNKNOWN	31.15	200	J	NJ
13.	UNKNOWN	31.67	180	J	
14.	UNKNOWN	32.62	170	J	
15.	UNKNOWN PAH MW252	33.75	110	J	
16.	UNKNOWN	35.45	360	J	
17.	UNKNOWN	37.98	470	J	
18.	UNKNOWN	38.63	230	J	
19.	UNKNOWN	39.85	820	J	
20.	UNKNOWN	40.03	360	J	
21.	UNKNOWN	40.88	360	J	

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HR485

SDG Number: HR481

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)	
16.17		ALKANE TYPE 4	170	NJ
17.23		ALKANE TYPE 4	200	
17.63		ALKANE TYPE 4	150	
18.70		ALKANE TYPE 4	170	
19.80		ALKANE TYPE 4	360	
20.28		ALKANE TYPE 4	220	
21.48		ALKANE TYPE 4	170	
22.63		ALKANE TYPE 4	340	
22.70		ALKANE TYPE 4	560	
25.73		ALKANE TYPE 4	220	
26.67		ALKANE TYPE 4	320	
27.57		ALKANE TYPE 4	410	
28.43		ALKANE TYPE 4	600	
29.27		ALKANE TYPE 4	330	
30.05		ALKANE TYPE 4	660	NJ
30.82		ALKANE TYPE 4	330	NJ
31.55		ALKANE TYPE 4	540	
32.25		ALKANE TYPE 4	280	
32.95		ALKANE TYPE 4	1200	
34.40		ALKANE TYPE 4	1200	

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

12/04/95

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SO-04

HR485

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021003

Sample wt/vol: 30.1 (g/mL) G Lab File ID:

% Moisture: 20 decanted: (Y/N) N Date Received: 09/15/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/23/95

Injection Volume: 1.00 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: 6.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
319-84-6	alpha-BHC	8.5	U	
319-85-7	beta-BHC	8.5	U	
319-86-8	delta-BHC	8.5	U	
58-89-9	gamma-BHC (Lindane)	8.5	U	
76-44-8	Heptachlor	8.5	U	
309-00-2	Aldrin	2.2	J	
1024-57-3	Heptachlor epoxide	4.2	JP	NJ
959-98-8	Endosulfan I	8.5	U	
60-57-1	Dieldrin	16	U	
72-55-9	4,4'-DDE	16	U	
72-20-8	Endrin	16	U	
33213-65-9	Endosulfan II	16	U	
72-54-8	4,4'-DDD	16	U	
1031-07-8	Endosulfan sulfate	16	U	
50-29-3	4,4'-DDT	16	U	
72-43-5	Methoxychlor	85	U	
53494-70-5	Endrin ketone	16	U	
7421-93-4	Endrin aldehyde	16	U	
5103-71-9	alpha-Chlordane	8.5	U	
5103-74-2	gamma-Chlordane	8.5	U	
8001-35-2	Toxaphene	850	U	
12674-11-2	Aroclor-1016	160	U	
11104-28-2	Aroclor-1221	330	U	
11141-16-5	Aroclor-1232	160	U	
53469-21-9	Aroclor-1242	160	U	
12672-29-6	Aroclor-1248	160	U	
11097-69-1	Aroclor-1254	160	U	
11096-82-5	Aroclor-1260	160	U	

12/05/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-50-05

HQ926

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021201

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ909

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: not dec. 9 Date Analyzed: 09/22/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	11 ~~5~~	~~BJ~~ U UJ LLL
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-02-6	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-01-5	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HQ926

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021201

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ909

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: not dec. 9 Date Analyzed: 09/22/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN COLUMN BLEED	11.69	6	J	NJ
2. 556672	Cyclotetrasiloxane, octameth	15.74	26	BJN	R

000042

FORM I VOA-TIC OLM03.0

12/04/95 cm

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SO-05

HQ926

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021201

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK641

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: 9 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	360	U	
111-44-4	bis(2-Chloroethyl)Ether	360	U	
95-57-8	2-Chlorophenol	360	U	
541-73-1	1,3-Dichlorobenzene	360	U	
106-46-7	1,4-Dichlorobenzene	360	U	
95-50-1	1,2-Dichlorobenzene	360	U	
95-48-7	2-Methylphenol	360	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	360	U	UJ
106-44-5	4-Methylphenol	360	U	
621-64-7	N-Nitroso-Di-n-Propylamine	360	U	
67-72-1	Hexachloroethane	360	U	
98-95-3	Nitrobenzene	360	U	
78-59-1	Isophorone	360	U	
88-75-5	2-Nitrophenol	360	U	
105-67-9	2,4-Dimethylphenol	360	U	
111-91-1	bis(2-Chloroethoxy)Methane	360	U	
120-83-2	2,4-Dichlorophenol	360	U	
120-82-1	1,2,4-Trichlorobenzene	360	U	
91-20-3	Naphthalene	360	U	
106-47-8	4-Chloroaniline	360	U	
87-68-3	Hexachlorobutadiene	360	U	UJ
59-50-7	4-Chloro-3-Methylphenol	360	U	
91-57-6	2-Methylnaphthalene	360	U	
77-47-4	Hexachlorocyclopentadiene	360	U	
88-06-2	2,4,6-Trichlorophenol	360	U	
95-95-4	2,4,5-Trichlorophenol	910	U	
91-58-7	2-Chloronaphthalene	360	U	
88-74-4	2-Nitroaniline	910	U	
131-11-3	Dimethyl Phthalate	360	U	
208-96-8	Acenaphthylene	360	U	
606-20-2	2,6-Dinitrotoluene	360	U	
99-09-2	3-Nitroaniline	910	U	
83-32-9	Acenaphthene	360	U	

12/04/95

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-50-05

HQ926

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021201

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK641

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: 9 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	910	U
100-02-7	4-Nitrophenol	910	U
132-64-9	Dibenzofuran	360	U
121-14-2	2,4-Dinitrotoluene	360	U
84-66-2	Diethylphthalate	360	U
7005-72-3	4-Chlorophenyl-phenylether	360	U
86-73-7	Fluorene	360	U
100-01-6	4-Nitroaniline	910	U
534-52-1	4,6-Dinitro-2-Methylphenol	910	U
86-30-6	N-Nitrosodiphenylamine (1)	360	U
101-55-3	4-Bromophenyl-phenylether	360	U
118-74-1	Hexachlorobenzene	360	U
87-86-5	Pentachlorophenol	910	U
85-01-8	Phenanthrene	24	J
120-12-7	Anthracene	360	U
86-74-8	Carbazole	360	U
84-74-2	Di-n-Butylphthalate	31	J
206-44-0	Fluoranthene	50	J
129-00-0	Pyrene	41	J
85-68-7	Butylbenzylphthalate	360	U
91-94-1	3,3'-Dichlorobenzidine	360	U
56-55-3	Benzo(a)Anthracene	35	J
218-01-9	Chrysene	39	J
117-81-7	bis(2-Ethylhexyl)Phthalate	30	J
117-84-0	Di-n-Octyl Phthalate	360	U
205-99-2	Benzo(b)Fluoranthene	33	J
207-08-9	Benzo(k)Fluoranthene	43	J
50-32-8	Benzo(a)Pyrene	33	J
193-39-5	Indeno(1,2,3-cd)Pyrene	29	J
53-70-3	Dibenz(a,h)Anthracene	360	U
191-24-2	Benzo(g,h,i)Perylene	32	J

(1) - Cannot be separated from Diphenylamine

12/04/95

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HQ926

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021201

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GK641

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: 9 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y , pH: 7.3

Number TICs found: 17

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	12.38	250	J	NJ
2.	UNKNOWN ACID	12.43	200	J	NJ
3.	UNKNOWN	12.80	1100	J	NJ
4.	UNKNOWN	13.92	950	J	NJ
5.	UNKNOWN	14.03	140	J	
6.	UNKNOWN	14.27	88	J	
7.	UNKNOWN	15.90	79	J	
8.	UNKNOWN	16.18	85	J	
9.	UNKNOWN ACID	18.67	94	J	
10. 57103	Hexadecanoic acid	25.42	170	JN	
11.	UNKNOWN	26.82	100	J	
12.	UNKNOWN	29.92	91	J	
13.	UNKNOWN	30.10	900	BJ	R
14.	UNKNOWN	31.67	250	J	NJ
15.	UNKNOWN	32.62	210	J	
16.	UNKNOWN	37.98	340	J	
17.	UNKNOWN	40.02	230	J	

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HQ926

SDG Number: HR481

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)
19.80		ALKANE TYPE 4	82
22.63		ALKANE TYPE 4	110
22.70		ALKANE TYPE 4	210
26.67		ALKANE TYPE 4	100
27.57		ALKANE TYPE 4	500
28.43		ALKANE TYPE 4	500
29.25		ALKANE TYPE 4	240
30.05		ALKANE TYPE 4	840
30.82		ALKANE TYPE 4	300
31.55		ALKANE TYPE 4	850
32.27		ALKANE TYPE 4	280
32.95		ALKANE TYPE 4	1500
33.63		ALKANE TYPE 4	150
34.40		ALKANE TYPE 4	630
35.27		ALKANE TYPE 4	110
36.28		ALKANE TYPE 4	190

NJ

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-50-05

HQ926

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021201

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

% Moisture: 9 decanted: (Y/N) N Date Received: 09/15/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/23/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
319-84-6	alpha-BHC	1.9	U	
319-85-7	beta-BHC	1.9	U	
319-86-8	delta-BHC	0.17	JP	NJ
58-89-9	gamma-BHC (Lindane)	1.9	U	
76-44-8	Heptachlor	0.88	J	
309-00-2	Aldrin	0.67	JP	NJ
1024-57-3	Heptachlor epoxide	1.5	JP	NJ
959-98-8	Endosulfan I	0.31	JP	NJ
60-57-1	Dieldrin	3.6	U	
72-55-9	4,4'-DDE	1.2	JP	NJ
72-20-8	Endrin	3.6	U	
33213-65-9	Endosulfan II	3.6	U	
72-54-8	4,4'-DDD	3.6	U	
1031-07-8	Endosulfan sulfate	0.77	JP	NJ
50-29-3	4,4'-DDT	3.7		NJ
72-43-5	Methoxychlor	19	U	
53494-70-5	Endrin ketone	3.6	U	
7421-93-4	Endrin aldehyde	3.6	U	
5103-71-9	alpha-Chlordane	0.29	JP	NJ
5103-74-2	gamma-Chlordane	1.9	U	
8001-35-2	Toxaphene	190	U	
12674-11-2	Aroclor-1016	36	U	
11104-28-2	Aroclor-1221	74	U	
11141-16-5	Aroclor-1232	36	U	
53469-21-9	Aroclor-1242	36	U	
12672-29-6	Aroclor-1248	36	U	
11097-69-1	Aroclor-1254	36	U	
11096-82-5	Aroclor-1260	36	U	

12/05/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SO-06

HQ927

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021202

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ925

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: not dec. 19 Date Analyzed: 09/23/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	12	U	
74-83-9	Bromomethane	12	U	
75-01-4	Vinyl Chloride	12	U	
75-00-3	Chloroethane	12	U	
75-09-2	Methylene Chloride	12 ~~3~~	~~BJ~~ U	UJ
67-64-1	Acetone	12	U	
75-15-0	Carbon Disulfide	12	U	
75-35-4	1,1-Dichloroethene	12	U	
75-34-3	1,1-Dichloroethane	12	U	
540-59-0	1,2-Dichloroethene (total)	12	U	
67-66-3	Chloroform	12	U	
107-06-2	1,2-Dichloroethane	12	U	
78-93-3	2-Butanone	12	U	
71-55-6	1,1,1-Trichloroethane	12	U	
56-23-5	Carbon Tetrachloride	12	U	
75-27-4	Bromodichloromethane	12	U	
78-87-5	1,2-Dichloropropane	12	U	
10061-02-6	cis-1,3-Dichloropropene	12	U	
79-01-6	Trichloroethene	12	U	
124-48-1	Dibromochloromethane	12	U	
79-00-5	1,1,2-Trichloroethane	12	U	
71-43-2	Benzene	12	U	
10061-01-5	trans-1,3-Dichloropropene	12	U	
75-25-2	Bromoform	12	U	
108-10-1	4-Methyl-2-Pentanone	12	U	
591-78-6	2-Hexanone	12	U	UJ
127-18-4	Tetrachloroethene	12	U	
79-34-5	1,1,2,2-Tetrachloroethane	12	U	
108-88-3	Toluene	12	U	
108-90-7	Chlorobenzene	12	U	
100-41-4	Ethylbenzene	12	U	
100-42-5	Styrene	12	U	
1330-20-7	Xylene (total)	12	U	

000051

12/04/95

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HQ927

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021202

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ925

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: not dec. 19 Date Analyzed: 09/23/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 556672	Cyclotetrasiloxane, octameth	15.72	17	BJN

R

000052

FORM I VOA-TIC

OLM03.0

12/04/95 m

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-50-06

HQ927

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021202

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GK640

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: 19 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	410	U	
111-44-4	bis(2-Chloroethyl)Ether	410	U	
95-57-8	2-Chlorophenol	410	U	
541-73-1	1,3-Dichlorobenzene	410	U	
106-46-7	1,4-Dichlorobenzene	410	U	
95-50-1	1,2-Dichlorobenzene	410	U	
95-48-7	2-Methylphenol	410	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	410	U	UJ
106-44-5	4-Methylphenol	410	U	
621-64-7	N-Nitroso-Di-n-Propylamine	410	U	
67-72-1	Hexachloroethane	410	U	
98-95-3	Nitrobenzene	410	U	
78-59-1	Isophorone	410	U	
88-75-5	2-Nitrophenol	410	U	
105-67-9	2,4-Dimethylphenol	410	U	
111-91-1	bis(2-Chloroethoxy)Methane	410	U	
120-83-2	2,4-Dichlorophenol	410	U	
120-82-1	1,2,4-Trichlorobenzene	410	U	
91-20-3	Naphthalene	410	U	
106-47-8	4-Chloroaniline	410	U	
87-68-3	Hexachlorobutadiene	410	U	UJ
59-50-7	4-Chloro-3-Methylphenol	410	U	
91-57-6	2-Methylnaphthalene	410	U	
77-47-4	Hexachlorocyclopentadiene	410	U	
88-06-2	2,4,6-Trichlorophenol	410	U	
95-95-4	2,4,5-Trichlorophenol	1000	U	
91-58-7	2-Chloronaphthalene	410	U	
88-74-4	2-Nitroaniline	1000	U	
131-11-3	Dimethyl Phthalate	410	U	
208-96-8	Acenaphthylene	410	U	
606-20-2	2,6-Dinitrotoluene	410	U	
99-09-2	3-Nitroaniline	1000	U	
83-32-9	Acenaphthene	410	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-50-06

HQ927

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021202

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GK640

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: 19 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-Methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-Butylphthalate	36	J
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	U
85-68-7	Butylbenzylphthalate	28	J
91-94-1	3,3'-Dichlorobenzidine	410	U
56-55-3	Benzo(a)Anthracene	410	U
218-01-9	Chrysene	410	U
117-81-7	bis(2-Ethylhexyl)Phthalate	30	J
117-84-0	Di-n-Octyl Phthalate	410	U
205-99-2	Benzo(b)Fluoranthene	410	U
207-08-9	Benzo(k)Fluoranthene	410	U
50-32-8	Benzo(a)Pyrene	410	U
193-39-5	Indeno(1,2,3-cd)Pyrene	410	U
53-70-3	Dibenz(a,h)Anthracene	410	U
191-24-2	Benzo(g,h,i)Perylene	410	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
RA-SD-06

HQ927

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021202

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GK640

Level: (low/med) LOW Date Received: 09/16/95

% Moisture: 19 decanted: (Y/N) N Date Extracted: 09/18/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.1

Number TICs found: 14

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	UNKNOWN	12.38	270	J	NJ
2.	UNKNOWN	12.80	1600	J	NJ
3.	UNKNOWN	13.92	810	J	NJ
4.	UNKNOWN	15.90	88	J	
5.	UNKNOWN ACID	18.67	130	J	
6. 252245	9-Hexadecenoic acid	25.35	230	JN	
7. 57103	Hexadecanoic acid	25.42	300	JN	
8.	UNKNOWN	31.15	150	J	
9.	UNKNOWN	31.65	250	J	
10.	UNKNOWN	32.60	400	J	
11.	UNKNOWN	33.07	390	J	
12.	UNKNOWN	37.97	310	J	
13.	UNKNOWN	39.83	170	J	
14.	UNKNOWN	40.02	160	J	

12/04/95 mm

Semi-Volatile Tentatively Identified Alkanes

Case Number: 24008

EPA Sample Number: HQ927

SDG Number: HR481

RT	CAS Number	Alkane Compound	Est. Conc. (UG/KG)
26.67		ALKANE TYPE 4	100
27.57		ALKANE TYPE 4	120
28.43		ALKANE TYPE 4	920
30.05		ALKANE TYPE 4	1300
30.82		ALKANE TYPE 4	150
31.55		ALKANE TYPE 4	1100
32.25		ALKANE TYPE 4	92
32.93		ALKANE TYPE 4	640
34.40		ALKANE TYPE 4	890
36.27		ALKANE TYPE 4	350

NJ

* NOTE: Alkane Type 1 = Unknown Cyclic Alkane
Alkane Type 2 = Unknown Branched Alkane
Alkane Type 3 = Unknown Straight Chain Alkane
Alkane Type 4 = Unknown Alkane

RECRA ENVIRONMENTAL INC.

12/04/95 um

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-50-06

HQ927

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR481

Matrix: (soil/water) SOIL Lab Sample ID: B5021202

Sample wt/vol: 30.1 (g/mL) G Lab File ID:

% Moisture: 19 decanted: (Y/N) N Date Received: 09/15/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/23/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.1 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC (Lindane)	2.1	U
76-44-8	Heptachlor	2.1	U
309-00-2	Aldrin	0.30	J
1024-57-3	Heptachlor epoxide	2.1	U
959-98-8	Endosulfan I	2.1	U
60-57-1	Dieldrin	4.1	U
72-55-9	4,4'-DDE	4.1	U
72-20-8	Endrin	4.1	U
33213-65-9	Endosulfan II	4.1	U
72-54-8	4,4'-DDD	4.1	U
1031-07-8	Endosulfan sulfate	4.1	U
50-29-3	4,4'-DDT	4.1	U
72-43-5	Methoxychlor	21	U
53494-70-5	Endrin ketone	4.1	U
7421-93-4	Endrin aldehyde	4.1	U
5103-71-9	alpha-Chlordane	2.1	U
5103-74-2	gamma-Chlordane	2.1	U
8001-35-2	Toxaphene	210	U
12674-11-2	Aroclor-1016	41	U
11104-28-2	Aroclor-1221	82	U
11141-16-5	Aroclor-1232	41	U
53469-21-9	Aroclor-1242	41	U
12672-29-6	Aroclor-1248	41	U
11097-69-1	Aroclor-1254	41	U
11096-82-5	Aroclor-1260	41	U

12/05/95 m

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-01

HR579

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020701

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR539

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. Date Analyzed: 09/25/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

EEC 12/5/95

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR579

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020701

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR539

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: not dec. Date Analyzed: 09/25/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

KEC 10/5/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-02

HR570

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020512

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR534

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

LRC 12/5/95

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR570

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020512

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR534

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RKC 12/5/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-03

HR567

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020511

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FQ959

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

FORM I VOA OLM03.0

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR567

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020511

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FQ959

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

CEC 12/5/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA SW-03

HR567RE

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020511RE

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR536

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/25/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

12/5/95

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR567RE

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020511RE

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR536

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/25/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-04

HR561

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020508

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FQ956

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

12/5/95

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR561

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020508

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FQ956

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FRC 12/5/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA - SW-05

HR574

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020514

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR524

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

KKC 12/5/95

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR574

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020514

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR524

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

KKC 12/5/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-06

HR564

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020510

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FQ958

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR564

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020510

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FQ958

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-06

HR564RE

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020510RE

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR537

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/25/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR564RE

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020510RE

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR537

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/25/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

EPC 10/5/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW1-07

HR558

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020506

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR520

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

FORM I VOA OLM03.0

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR558

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020506

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR520

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RLC 12/5/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-08

HR555

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020505

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR521

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	10	U	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	12		
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
78-93-3	2-Butanone	10	U	
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-02-6	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	10	U	uJ
10061-01-5	trans-1,3-Dichloropropene	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	uJ
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR555

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020505

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: AR521

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

PVC 11/5/95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-09

HR554

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020504

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FQ952

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR554

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020504

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FQ952

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SCU-10

HR549

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020501

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FQ949

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

FORM I VOA OLM03.0

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR549

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020501

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FQ949

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SCU-11

HR551

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020502

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FQ950

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

FORM I VOA OLM03.0

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR551

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020502

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FQ950

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: not dec. Date Analyzed: 09/24/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

13

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-01

HR579

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020701

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK540

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-01

HR579

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020701

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK540

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR579

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020701

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK540

Level: (low/med) LOW Date Received: 09/15/95

% Moisture: decanted: (Y/N) Date Extracted: 09/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-02

HR570

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020512

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK499

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/16/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-02

HR570

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020512

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK499

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/16/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR570

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020512

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK499

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/16/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-03

HR567

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020511

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK498

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/16/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SWL-03

HR567

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020511

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK498

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/16/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR567

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020511

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK498

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/16/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SLU-04

HR561

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020508

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK496

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/16/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-04

HR561

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020508

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK496

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/16/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

3004884

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR561

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020508

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK496

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/16/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-05

HR574

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020514

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK500

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/16/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
KA-SW-05

HR574

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020514

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK500

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/16/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR574

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020514

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK500

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/16/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA - SW - 06

HR564

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020510

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK497

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/16/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-06

HR564

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020510

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK497

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/16/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR564

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020510

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK497

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/16/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-07

HR558

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020506

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK494

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-07

HR558

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020506

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK494

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR558

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020506

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK494

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-08

HR555

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020505

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK493

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-08

HR555

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020505

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK493

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR555

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020505

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK493

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 105602	Caprolactam	17.45	8	JN

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
KA-SW-09

HR554

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020504

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK492

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-09

HR554

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020504

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK492

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR554

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020504

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK492

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA - SW - 10

HR549

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020501

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK489

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SCU-10

HR549

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020501

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK489

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR549

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020501

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK489

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-11

HR551

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020502

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK490

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-11

HR551

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020502

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK490

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HR551

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020502

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GK490

Level: (low/med) LOW Date Received: 09/14/95

% Moisture: decanted: (Y/N) Date Extracted: 09/14/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-01

HR579

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020701

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/15/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/17/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/19/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-02

HR570

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020512

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/14/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/19/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

MC 12/7/95

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-03

HR567

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020511

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/14/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/19/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SCU-04

HR561

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020508

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/14/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/19/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-05

HR574

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020514

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/14/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/19/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-06

HR564

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020510

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/14/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/19/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SCU-07

HR558

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020506

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/14/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/18/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-08

HR555

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020505

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/14/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/18/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SCW-09

HR554

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020504

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/14/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/18/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-10

HR549

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020501

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/14/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/18/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RA-SW-11

HR551

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 24008 SAS No.: SDG No.: HR549

Matrix: (soil/water) WATER Lab Sample ID: B5020502

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 09/14/95

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/14/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/18/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Rico Argentine
SQLS FOR INORGANIC SOIL SAMPLES. SQL = IDL X (FINAL VOLUME /(SAMPLE

1	URS # and EPA # =	MHDD94/RA-SE-02	
	MATRIX=	SOIL	
	ANALYTES=	Copper	
	INSTRUMENT DETECTION LIMIT (IDL)	1	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.74	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	0.27	UG/G (PPM)
2	URS # and EPA # =	MHDD86/RA-SE-04	
	MATRIX=	SOIL	
	ANALYTES=	Copper/Lead	
	INSTRUMENT DETECTION LIMIT (IDL)	1	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.54	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	0.37	UG/G (PPM)
3	URS # and EPA # =	MHDD83/RA-SE-07	
	MATRIX=	SOIL	
	ANALYTES=	Arsenic/Manganese	
	INSTRUMENT DETECTION LIMIT (IDL)	2	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.85	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	0.47	UG/G (PPM)

RICO ARGENTINE

SQL FOR ORGANICS (SEDIMENTS). SQL= (CRQL / % SOLIDS) X DILUTION FACTOR

1	URS # and EPA # =	RA-SE-04/HR562	
	MATRIX=	SEDIMENT	
	ANALYTES=	Bis(2-Ethylhexyl)Phthalate	
	CRQL=	1	UG/KG or UG/L
	(1 - % MOISTURE) = % SOLIDS=	1.00	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	1.00	UG/KG
2	URS # and EPA # =	RA-SE-05/HR-575	
	MATRIX=	SEDIMENT	
	ANALYTES=	Di-n-Butylphthalate/Bis(2-Ethylhexyl)Phthalate	
	CRQL=	1	UG/KG or UG/L
	(1 - % MOISTURE) = % SOLIDS=	1.00	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	1.00	UG/KG
3	URS # and EPA # =	RA-SE-06/HR565	
	MATRIX=	WATER	
	ANALYTES=		
	CRQL=	1	UG/KG or UG/L
	(1 - % MOISTURE) = % SOLIDS=	1.00	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	1.00	UG/KG

Rico Argentine

SQLS FOR INORGANIC SOIL SAMPLES. SQL = IDL X (FINAL VOLUME /(SAMPLE WEIGHT X %

1

URS # and EPA # =	MHDD38/RA-SO-07	
MATRIX=	SOIL	
ANALYTES=	Magnesium	
INSTRUMENT DETECTION LIMIT (IDL)	35	UG/L
FINAL VOLUME=	200	ML
SAMPLE WEIGHT=	1.00	GRAMS
% SOLIDS=	1.00	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	7.00	UG/G (PPM)

2

URS # and EPA # =	MHDA98/RA-SO-04	
MATRIX=	SOIL	
ANALYTES=	Sodium	
INSTRUMENT DETECTION LIMIT (IDL)	142	UG/L
FINAL VOLUME=	200	ML
SAMPLE WEIGHT=	1.00	GRAMS
% SOLIDS=	0.83	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	34.34	UG/G (PPM)

3

URS # and EPA # =	MHDD99/RA-SO-02	
MATRIX=	SOIL	
ANALYTES=	Zinc	
INSTRUMENT DETECTION LIMIT (IDL)	5	UG/L
FINAL VOLUME=	200	ML
SAMPLE WEIGHT=	1.00	GRAMS
% SOLIDS=	0.88	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	1.14	UG/G (PPM)

4

URS # and EPA # =	MHDD99/RA-SO-02	
MATRIX=	SOIL	
ANALYTES=	Mercury	
INSTRUMENT DETECTION LIMIT (IDL)	0.2	UG/L
FINAL VOLUME=	100	ML
SAMPLE WEIGHT=	0.20	GRAMS
% SOLIDS=	0.88	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	0.11	UG/G (PPM)

Rico Argen ine

SQLS FOR INORGANIC WATER SAMPLES. SQL = CRDL X DILUTION FACTOR

1	URS # and EPA # =	MHDD87/RA-SW-06		
	MATRIX=	WATER		
	ANALYTES=	Aluminum		
		CRDL=	200	UG/L
		DILUTION FACTOR=	1.00	
		SQL=	200.00	UG/L (PPB)
2	URS # and EPA # =	MHDD87/RA-SW-06		
	MATRIX=	WATER		
	ANALYTES=	Iron		
		CRDL=	100	UG/L
		DILUTION FACTOR=	1.00	
		SQL=	100.00	UG/L (PPB)
3	URS # and EPA # =	MHDD87/RA-SW-06		
	MATRIX=	WATER		
	ANALYTES=	Zinc		
		CRDL=	20	UG/L
		DILUTION FACTOR=	1.00	
		SQL=	20.00	UG/L (PPB)
4	URS # and EPA # =	MHDD87/RA-SW-06		
	MATRIX=	WATER		
	ANALYTES=	Manganese		
		CRDL=	15	UG/L
		DILUTION FACTOR=	1.00	
		SQL=	15.00	UG/L (PPB)
5	URS # and EPA # =	MHDD87/RA-SW-06		
	MATRIX=	WATER		
	ANALYTES=	Lead		
		CRDL=	3	UG/L
		DILUTION FACTOR=	1.00	
		SQL=	3.00	UG/L (PPB)

Rico Ar en ine

SQLS FOR INORGANIC WATER SAMPLES. SQL = CRDL X DILUTION FACTOR

6	URS # and EPA # =	MHDD93,87,78,71/RA-SW-02,06,08,11		
	MATRIX=	WATER		
	ANALYTES=	Aluminum		
		CRDL=	200	UG/L
		DILUTION FACTOR=	1.00	
		SQL=	200.00	UG/L (PPB)
7	URS # and EPA # =	MHDD90/RA-SW-03		
	MATRIX=	WATER		
	ANALYTES=	Calcium		
		CRDL=	5000	UG/L
		DILUTION FACTOR=	1.00	
		SQL=	5000.00	UG/L (PPB)
8	URS # and EPA # =	MHDD90/RA-SW-03 & MHDD78/RA-SW-08		
	MATRIX=	WATER		
	ANALYTES=	Copper		
		CRDL=	25	UG/L
		DILUTION FACTOR=	1.00	
		SQL=	25.00	UG/L (PPB)
9	URS # and EPA # =	MHDD93,90,85,82,87,78,81,70,71/RA-SW-02,03,04,06,07,08,09,10,11		
	MATRIX=	WATER		
	ANALYTES=	Iron		
		CRDL=	100	UG/L
		DILUTION FACTOR=	1.00	
		SQL=	100.00	UG/L (PPB)
10	URS # and EPA # =	MHDD85/RA-SW-04, MHDD70/RA-SW-10 & MHDD87/RA-SW-06		
	MATRIX=	WATER		
	ANALYTES=	Lead		
		CRDL=	3	UG/L
		DILUTION FACTOR=	1.00	
		SQL=	3.00	UG/L (PPB)

Rico A gentine

SQLS FOR INORGANIC WATER SAMPLES. SQL = CRDL X DILUTION FACTOR

11	URS # and EPA # =	MHDD90/RA-SW-03		
	MATRIX=	WATER		
	ANALYTES=	Magnesium		
		CRDL=	5000	UG/L
		DILUTION FACTOR=	1.00	
		SQL=	5000.00	UG/L (PPB)
12	URS # and EPA # =	MHDD93,90,85,87,82,78,81,70,71/RA-SW-02,03,04,06,07,08,09,10,11		
	MATRIX=	WATER		
	ANALYTES=	Manganese		
		CRDL=	15	UG/L
		DILUTION FACTOR=	1.00	
		SQL=	15.00	UG/L (PPB)
13	URS # and EPA # =	MHDD93,90,82,78,81,70,71/RA-SW-02,03,07,08,09,10,11		
	MATRIX=	WATER		
	ANALYTES=	Potassium		
		CRDL=	5000	UG/L
		DILUTION FACTOR=	1.00	
		SQL=	5000.00	UG/L (PPB)
14	URS # and EPA # =	MHDD90,87,82,78,81,70,71/RA-SW-03,06,07,08,09,10,11		
	MATRIX=	WATER		
	ANALYTES=	Zinc		
		CRDL=	20	UG/L
		DILUTION FACTOR=	1.00	
		SQL=	20.00	UG/L (PPB)

RICO ARGENTINE :Site

RICO ARGENTINE
SQL FOR ORGANICS (SEDIMENTS). SQL= (CRQL / % SOLIDS) X DILUTION FACTOR

1
URS # and EPA # = RA-SE-04/HR562
MATRIX= SEDIMENTS
ANALYTES= Bis(2-Ethylhexyl)Phthalate

CRQL= 330 UG/KG or UG/L
(1 - % MOISTURE)= % SO 0.82 (Convert to decimal)
DILUTION FACTOR 1

SQL= 402.44 UG/KG

2
URS # and EPA # = RA-SE-05/HR575
MATRIX= SEDIMENTS
ANALYTES= Di-n-Butylphthalate/Bis(2-Ehylhexyl)Phthalate

CRQL= 330 UG/KG or UG/L
(1 - % MOISTURE)= % SO 0.68 (Convert to decimal)
DILUTION FACTOR 1

SQL= 485.29 UG/KG

3
URS # and EPA # = RA-SE-06/HR565
MATRIX= SEDIMENTS
ANALYTES= Tetrachlorethene

CRQL= 10 UG/KG or UG/L
(1 - % MOISTURE)= % SO 0.09 (Convert to decimal)
DILUTION FACTOR 1

SQL= 111.11 UG/KG

4
URS # and EPA # = RA-SE-06/HR565
MATRIX= SEDIMENTS
ANALYTES= Di-n-Butylphthalate/Bis(2-Ethylhexyl)Phthalate

CRQL= 330 UG/KG or UG/L
(1 - % MOISTURE)= % SO 0.09 (Convert to decimal)
DILUTION FACTOR 1

SQL= 3666.67 UG/KG

5
URS # and EPA # = RA-SE-07/HR559
MATRIX= SEDIMENTS
ANALYTES= Tetrachlorethene

CRQL= 10 UG/KG or UG/L
(1 - % MOISTURE)= % SO 0.85 (Convert to decimal)
DILUTION FACTOR 1

SQL= 11.76 UG/KG

6
URS # and EPA # = RA-SE-08/HR556
MATRIX= SEDIMENTS
ANALYTES= Tetrachlorethene

CRQL= 10 UG/KG or UG/L
(1 - % MOISTURE)= % SO 0.80 (Convert to decimal)
DILUTION FACTOR 1

SQL= 12.50 UG/KG

7

URS # and EPA # = RA-SE-08/HR556
MATRIX= SEDIMENTS
ANALYTES= Bis(2-Ehylhexyl)Phthalate

CRQL= 330 UG/KG or UG/L
(1 - % MOISTURE)= % SO 0.80 (Convert to decimal)
DILUTION FACTOR 1

SQL= 412.50 UG/KG

8

URS # and EPA # = RA-SE-10/HR550
MATRIX= SEDIMENTS
ANALYTES= Bis(2-Ethylhexyl)Phthalate/4-Methylphenol

CRQL= 330 UG/KG or UG/L
(1 - % MOISTURE)= % SO 0.62 (Convert to decimal)
DILUTION FACTOR 1

SQL= 532.26 UG/KG

9

URS # and EPA # = RA-SE-11/HR552
MATRIX= SEDIMENTS
ANALYTES= 2-Butanone

CRQL= 10 UG/KG or UG/L
(1 - % MOISTURE)= % SO 0.83 (Convert to decimal)
DILUTION FACTOR 0.2

SQL= 2.41 UG/KG

10

URS # and EPA # = RA-SE-11/HR552
MATRIX= SEDIMENTS
ANALYTES= Bis(2-Ethylhexyl)Phthalate/4-Methylphenol

CRQL= 330 UG/KG or UG/L
(1 - % MOISTURE)= % SO 0.83 (Convert to decimal)
DILUTION FACTOR 1

SQL= 397.59 UG/KG

Rico Argentine

SQLS FOR INORGANIC SOIL SAMPLES. SQL = IDL X (FINAL VOLUME /(SAMPLE WEIGHT X % SOLIDS)) X DI

1	URS # and EPA # =	MHDA98/RA-SO-04	
	MATRIX=	SOIL	
	ANALYTES=	Antimony	
	INSTRUMENT DETECTION LIMIT (IDL)=	3	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.83	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	0.73	UG/G (PPM)
2	URS # and EPA # =	MHDA98/RA-SO-04	
	MATRIX=	SOIL	
	ANALYTES=	Lead/Silver	
	INSTRUMENT DETECTION LIMIT (IDL)=	1	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.83	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	0.24	UG/G (PPM)
3	URS # and EPA # =	MHDA98/RA-SO-04	
	MATRIX=	SOIL	
	ANALYTES=	Copper	
	INSTRUMENT DETECTION LIMIT (IDL)=	4	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.83	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	0.97	UG/G (PPM)
4	URS # and EPA # =	MHDA98/RA-SO-04	
	MATRIX=	SOIL	
	ANALYTES=	Mercury	
	INSTRUMENT DETECTION LIMIT (IDL)=	0.2	UG/L
	FINAL VOLUME=	100	ML
	SAMPLE WEIGHT=	0.20	GRAMS
	% SOLIDS=	0.83	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	0.12	UG/G (PPM)
5	URS # and EPA # =	MHDD34/RA-SO-06	
	MATRIX=	SOIL	
	ANALYTES=	Arsenic	
	INSTRUMENT DETECTION LIMIT (IDL)=	2	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.83	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	0.48	UG/G (PPM)

Rico Argentine
SQLS FOR INORGANIC SOIL SAMPLES. SQL = IDL X (FINAL VOLUME /(SAMPLE WEIGHT X % SOLIDS)) X DI

6	URS # and EPA # =	MHDD34/RA-SO-06	
	MATRIX=	SOIL	
	ANALYTES=	Manganese	
	INSTRUMENT DETECTION LIMIT (IDL)=	2	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.83	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	0.48	UG/G (PPM)
7	URS # and EPA # =	MHDD34/RA-SO-06	
	MATRIX=	SOIL	
	ANALYTES=	Copper	
	INSTRUMENT DETECTION LIMIT (IDL)=	4	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.83	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	0.97	UG/G (PPM)
8	URS # and EPA # =	MHDD34/RA-SO-06	
	MATRIX=	SOIL	
	ANALYTES=	Zinc	
	INSTRUMENT DETECTION LIMIT (IDL)=	5	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.83	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	1.21	UG/G (PPM)
9	URS # and EPA # =	MHDD38/RA-SO-07	
	MATRIX=	SOIL	
	ANALYTES=	Antimony	
	INSTRUMENT DETECTION LIMIT (IDL)=	3	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	1.00	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	0.60	UG/G (PPM)
10	URS # and EPA # =	MHDD38/RA-SO-07	
	MATRIX=	SOIL	
	ANALYTES=	Arsenic	
	INSTRUMENT DETECTION LIMIT (IDL)=	2	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	1.00	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	0.40	UG/G (PPM)

Rico Argentine
SQLS FOR INORGANIC SOIL SAMPLES. SQL = IDL X (FINAL VOLUME /(SAMPLE WEIGHT X % SOLIDS)) X DI

11	URS # and EPA # =	MHDD38/RA-SO-07	
	MATRIX=	SOIL	
	ANALYTES=	Calcium	
	INSTRUMENT DETECTION LIMIT (IDL)=	5	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	1.00	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	1.00	UG/G (PPM)
12	URS # and EPA # =	MHDD38/RA-SO-07	
	MATRIX=	SOIL	
	ANALYTES=	Lead/Vanadium	
	INSTRUMENT DETECTION LIMIT (IDL)=	1	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	1.00	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	0.20	UG/G (PPM)
13	URS # and EPA # =	MHDD38/RA-SO-07	
	MATRIX=	SOIL	
	ANALYTES=	Copper	
	INSTRUMENT DETECTION LIMIT (IDL)=	4	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	1.00	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	0.80	UG/G (PPM)
14	URS # and EPA # =	MHDD38/RA-SO-07	
	MATRIX=	SOIL	
	ANALYTES=	Cyanide	
	INSTRUMENT DETECTION LIMIT (IDL)=	3	UG/L
	FINAL VOLUME=	50	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	1.00	(Convert to decimal)
	DILUTION FACTOR=	20	
	SQL=	3.00	UG/G (PPM)
15	URS # and EPA # =	MHDD99/RA-SO-02	
	MATRIX=	SOIL	
	ANALYTES=	Cadmium/Copper/Silver	
	INSTRUMENT DETECTION LIMIT (IDL)=	1	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.88	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	0.23	UG/G (PPM)

RICO ARGENTINE
SQL FOR ORGANICS (SOILS AND ATERS). SQL= (CRQL / % SOLIDS) X DILUTION FACTOR

1

URS # and EPA # =	RA-SO-02/HR578	
MATRIX=	SOIL	
ANALYTES=	Phenanthrene/Anthracene/Di-n-butylphthalate/Fluoranthene/Pyrene/Benzo(a)anthrancen	
CRQL=	330	UG/KG or UG/L
(1 - % MOISTURE) = % SOLIDS=	0.85	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	388.24	UG/KG

2

URS # and EPA # =	RA-SO-02/HR578	
MATRIX=	SOIL	
ANALYTES=	Chrysene/Benzo(b)Fluoranthene/Benzo(k)Fluoranthene/Benzo(a)Pyrene	
CRQL=	330	UG/KG or UG/L
(1 - % MOISTURE) = % SOLIDS=	0.85	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	388.24	UG/KG

3

URS # and EPA # =	RA-SO-02/HR578	
MATRIX=	SOIL	
ANALYTES=	Indeno(1,2,3-cd)pyrene/Dibenz(a,h)Anthracene/Benzo(g,h,i)Perlene	
CRQL=	330	UG/KG or UG/L
(1 - % MOISTURE) = % SOLIDS=	0.85	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	388.24	UG/KG

4

URS # and EPA # =	RA-SO-04/HR485	
MATRIX=	SOIL	
ANALYTES=	Phenanthrene/Fluoranthene/Pyrene/Benzo(a)Anthracene/Chrysene/Benzo(b)Fluoranthe	
CRQL=	330	UG/KG or UG/L
(1 - % MOISTURE) = % SOLIDS=	0.80	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	412.50	UG/KG

5

URS # and EPA # =	RA-SO-04/HR485	
MATRIX=	SOIL	
ANALYTES=	Benzo(k)Fluoranthene/Benzo(a)Pyrene/Ineno(1,2,3-cd)Pyrene/Dibenz(a,h)Anthracene	
CRQL=	330	UG/KG or UG/L
(1 - % MOISTURE) = % SOLIDS=	0.80	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	412.50	UG/KG

6

URS # and EPA # =	RA-SO-04/HR485	
MATRIX=	SOIL	
ANALYTES=	Benzo(g,h,i)Perlene/Naphthalene/2 Methlnaphthalene	
CRQL=	330	UG/KG or UG/L
(1 - % MOISTURE) = % SOLIDS=	0.80	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	412.50	UG/KG

7

URS # and EPA # =	RA-SO-05/HO926	
MATRIX=	SOIL	
ANALYTES=	Phenanthrene/Di-n-Butylphthalate/Fluoranthene/Pyrene/Benzo(a)Anthracene/Chrysene/	
CRQL=	330	UG/KG or UG/L
(1 - % MOISTURE) = % SOLIDS=	0.91	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	362.64	UG/KG

RICO ARGENTINE
SQL FOR ORGANICS (SOILS AND ATERS). SQL= (CRQL / % SOLIDS) X DILUTION FACTOR

8	URS # and EPA # =	RA-SO-05/HQ926	
	MATRIX=	SOIL	
	ANALYTES=	Benzo(k)Fluoranthene/Benzo(a)Pyrene/Indeno(1,2,3-cd)Pyrene/Benzo(g,h,i)Perlene	
	CRQL=	330	UG/KG or UG/L
	(1 - % MOISTURE) = % SOLIDS=	0.91	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	362.64	UG/KG
9	URS # and EPA # =	RA-SO-02/HR578	
	MATRIX=	SOIL	
	ANALYTES=	Heptachlor/Aldrin/Heptachlor Epoxide/Endosulfan/alpha-Chlordane/gamma-Chlordane	
	CRQL=	1.7	UG/KG or UG/L
	(1 - % MOISTURE) = % SOLIDS=	0.85	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	2.00	UG/KG
10	URS # and EPA # =	RA-SO-02/HR578	
	MATRIX=	SOIL	
	ANALYTES=	4,4'-DDE/Endrin/4,4'-DDT/Endrin Ketone	
	CRQL=	3.3	UG/KG or UG/L
	(1 - % MOISTURE) = % SOLIDS=	0.85	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	3.88	UG/KG
11	URS # and EPA # =	RA-SO-03/HR484	
	MATRIX=	SOIL	
	ANALYTES=	Aldrin/Heptachlor Epoxide	
	CRQL=	1.7	UG/KG or UG/L
	(1 - % MOISTURE) = % SOLIDS=	0.81	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	2.10	UG/KG
12	URS # and EPA # =	RA-SO-03/HR484	
	MATRIX=	SOIL	
	ANALYTES=	4,4'-DDE/4,4'-DDT	
	CRQL=	3.3	UG/KG or UG/L
	(1 - % MOISTURE) = % SOLIDS=	0.81	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	4.07	UG/KG
13	URS # and EPA # =	RA-SO-04/HR485	
	MATRIX=	SOIL	
	ANALYTES=	Aldrin/Heptachlor Epoxide	
	CRQL=	1.7	UG/KG or UG/L
	(1 - % MOISTURE) = % SOLIDS=	0.80	(Convert to decimal)
	DILUTION FACTOR=	4	
	SQL=	8.50	UG/KG
14	URS # and EPA # =	RA-SO-05/HQ926	
	MATRIX=	SOIL	
	ANALYTES=	Heptachlor/Aldrin/Heptachlor Epoxide/Endosulfan/alpha-Chlordane/delta-BHC	
	CRQL=	1.7	UG/KG or UG/L
	(1 - % MOISTURE) = % SOLIDS=	0.91	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	1.87	UG/KG

RICO ARGENTINE
SQL FOR ORGANICS (SOILS AND ATERS). SQL= (CRQL / % SOLIDS) X DILUTION FACTOR

15	URS # and EPA # =	RA-SO-05/HQ926	
	MATRIX=	SOIL	
	ANALYTES=	4,4'-DDE/4,4'-DDT	
	CRQL=	3.3	UG/KG or UG/L
	(1 - % MOISTURE)= % SOLIDS=	0.91	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	3.63	UG/KG
16	URS # and EPA # =	RA-SO-06/HQ927	
	MATRIX=	SOIL	
	ANALYTES=	Di-n-Butylphthalate	
	CRQL=	330	UG/KG or UG/L
	(1 - % MOISTURE)= % SOLIDS=	0.81	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	407.41	UG/KG
17	URS # and EPA # =	RA-SO-06/HQ927	
	MATRIX=	SOIL	
	ANALYTES=	Aldrin	
	CRQL=	1.7	UG/KG or UG/L
	(1 - % MOISTURE)= % SOLIDS=	0.81	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	2.10	UG/KG

Rico Argentine
SQLS FOR INORGANIC SOIL SAMPLES. SQL = IDL X (FINAL VOLUME /(SAMPLE WEIGHT X % SOLIDS)) X DILUTION FACTOR

17

URS # and EPA # =	MHDD38/RA-SO-07
MATRIX=	SOIL
ANALYTES=	Magnesium
INSTRUMENT DETECTION LIMI	35 UG/L
FINAL VOLUME=	200 ML
SAMPLE WEIGHT=	1.00 GRAMS
% SOLIDS=	1.00 (Convert to decimal)
DILUTION FACTOR=	1
SQL=	7.00 UG/G (PPM)

18

URS # and EPA # =	MHDA98/RA-SO-04
MATRIX=	SOIL
ANALYTES=	Sodium
INSTRUMENT DETECTION LIMI	142 UG/L
FINAL VOLUME=	200 ML
SAMPLE WEIGHT=	1.00 GRAMS
% SOLIDS=	0.83 (Convert to decimal)
DILUTION FACTOR=	1
SQL=	34.34 UG/G (PPM)

19

URS # and EPA # =	MHDD99/RA-SO-02
MATRIX=	SOIL
ANALYTES=	Zinc
INSTRUMENT DETECTION LIMI	5 UG/L
FINAL VOLUME=	200 ML
SAMPLE WEIGHT=	1.00 GRAMS
% SOLIDS=	0.88 (Convert to decimal)
DILUTION FACTOR=	1
SQL=	1.14 UG/G (PPM)

20

URS # and EPA # =	MHDD99/RA-SO-02
MATRIX=	SOIL
ANALYTES=	Mercury
INSTRUMENT DETECTION LIMI	0.2 UG/L
FINAL VOLUME=	100 ML
SAMPLE WEIGHT=	0.20 GRAMS
% SOLIDS=	0.88 (Convert to decimal)
DILUTION FACTOR=	1
SQL=	0.11 UG/G (PPM)

Rico Argentine

SQLS FOR INORGANIC SOIL SAMPLES. SQL = IDL X (FINAL VOLUME /(SAMPLE WEIGHT X % S

1

URS # and EPA # =	MHDD94/RA-SE-02	
MATRIX=	SOIL	
ANALYTES=	Copper	
INSTRUMENT DETECTION LIMIT (IDL)=	1	UG/L
FINAL VOLUME=	200	ML
SAMPLE WEIGHT=	1.00	GRAMS
% SOLIDS=	0.74	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	0.27	UG/G (PPM)

2

URS # and EPA # =	MHDD86/RA-SE-04	
MATRIX=	SOIL	
ANALYTES=	Copper/Lead	
INSTRUMENT DETECTION LIMIT (IDL)=	1	UG/L
FINAL VOLUME=	200	ML
SAMPLE WEIGHT=	1.00	GRAMS
% SOLIDS=	0.54	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	0.37	UG/G (PPM)

3

URS # and EPA # =	MHDD83/RA-SE-07	
MATRIX=	SOIL	
ANALYTES=	Arsenic/Manganese	
INSTRUMENT DETECTION LIMIT (IDL)=	2	UG/L
FINAL VOLUME=	200	ML
SAMPLE WEIGHT=	1.00	GRAMS
% SOLIDS=	0.85	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	0.47	UG/G (PPM)

4

URS # and EPA # =	MHDD83/RA-SE-07	
MATRIX=	SOIL	
ANALYTES=	Copper/Lead/Silver	
INSTRUMENT DETECTION LIMIT (IDL)=	1	UG/L
FINAL VOLUME=	200	ML
SAMPLE WEIGHT=	1.00	GRAMS
% SOLIDS=	0.85	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	0.24	UG/G (PPM)

5

URS # and EPA # =	MHDD83/RA-SE-07	
MATRIX=	SOIL	
ANALYTES=	Iron	
INSTRUMENT DETECTION LIMIT (IDL)=	9	UG/L
FINAL VOLUME=	200	ML
SAMPLE WEIGHT=	1.00	GRAMS
% SOLIDS=	0.85	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	2.13	UG/G (PPM)

Rico Argentine
SQLS FOR INORGANIC SOIL SAMPLES. SQL = IDL X (FINAL VOLUME /(SAMPLE WEIGHT X % S

6	URS # and EPA # =	MHDD83/RA-SE-07	
	MATRIX=	SOIL	
	ANALYTES=	Zinc	
	INSTRUMENT DETECTION LIMIT (IDL)=	5	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.85	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	1.18	UG/G (PPM)
7	URS # and EPA # =	MHDD79/RA-SE-08	
	MATRIX=	SOIL	
	ANALYTES=	Cadmium/Copper/Lead	
	INSTRUMENT DETECTION LIMIT (IDL)=	1	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.71	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	0.28	UG/G (PPM)
8	URS # and EPA # =	MHDD79/RA-SE-08	
	MATRIX=	SOIL	
	ANALYTES=	Iron	
	INSTRUMENT DETECTION LIMIT (IDL)=	9	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.71	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	2.53	UG/G (PPM)
9	URS # and EPA # =	MHDD79/RA-SE-08	
	MATRIX=	SOIL	
	ANALYTES=	Zinc	
	INSTRUMENT DETECTION LIMIT (IDL)=	5	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.71	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	1.41	UG/G (PPM)
10	URS # and EPA # =	MHDD80/RA-SE-09	
	MATRIX=	SOIL	
	ANALYTES=	Cadmium/Copper/Silver/Lead	
	INSTRUMENT DETECTION LIMIT (IDL)=	1	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.60	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	0.34	UG/G (PPM)

Rico Argentine
SQLS FOR INORGANIC SOIL SAMPLES. SQL = IDL X (FINAL VOLUME /(SAMPLE WEIGHT X % S

11	URS # and EPA # =	MHDD80/RA-SE-09	
	MATRIX=	SOIL	
	ANALYTES=	Calcium	
	INSTRUMENT DETECTION LIMIT (IDL)=	5	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.60	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	1.68	UG/G (PPM)
12	URS # and EPA # =	MHDD80/RA-SE-09	
	MATRIX=	SOIL	
	ANALYTES=	Manganese	
	INSTRUMENT DETECTION LIMIT (IDL)=	2	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.60	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	0.67	UG/G (PPM)
13	URS # and EPA # =	MHDD80/RA-SE-09	
	MATRIX=	SOIL	
	ANALYTES=	Zinc	
	INSTRUMENT DETECTION LIMIT (IDL)=	5	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.60	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	1.68	UG/G (PPM)
14	URS # and EPA # =	MHDD73/RA-SE-10	
	MATRIX=	SOIL	
	ANALYTES=	Calcium	
	INSTRUMENT DETECTION LIMIT (IDL)=	5	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.47	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	2.13	UG/G (PPM)
15	URS # and EPA # =	MHDD73/RA-SE-10	
	MATRIX=	SOIL	
	ANALYTES=	Copper/Lead	
	INSTRUMENT DETECTION LIMIT (IDL)=	1	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.47	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	0.43	UG/G (PPM)

Rico Argentine
SQLS FOR INORGANIC SOIL SAMPLES. SOL = IDL X (FINAL VOLUME /(SAMPLE WEIGHT X % S

16	URS # and EPA # =	MHDD72/RA-SE-11	
	MATRIX=	SOIL	
	ANALYTES=	Calcium	
	INSTRUMENT DETECTION LIMIT (IDL)=	5	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.66	(Convert to decimal)
	DILUTION FACTOR=	1	
	SOL=	1.52	UG/G (PPM)
17	URS # and EPA # =	MHDD72/RA-SE-11	
	MATRIX=	SOIL	
	ANALYTES=	Copper/Lead	
	INSTRUMENT DETECTION LIMIT (IDL)=	1	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.66	(Convert to decimal)
	DILUTION FACTOR=	1	
	SOL=	0.30	UG/G (PPM)
18	URS # and EPA # =	MHDD88/RA-SE-06	
	MATRIX=	SOIL	
	ANALYTES=	Aluminum	
	INSTRUMENT DETECTION LIMIT (IDL)=	33	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.08	(Convert to decimal)
	DILUTION FACTOR=	1	
	SOL=	84.62	UG/G (PPM)
19	URS # and EPA # =	MHDD88/RA-SE-06	
	MATRIX=	SOIL	
	ANALYTES=	Antimony	
	INSTRUMENT DETECTION LIMIT (IDL)=	3	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.08	(Convert to decimal)
	DILUTION FACTOR=	1	
	SOL=	7.69	UG/G (PPM)
20	URS # and EPA # =	MHDD88/RA-SE-06	
	MATRIX=	SOIL	
	ANALYTES=	Cyanide	
	INSTRUMENT DETECTION LIMIT (IDL)=	3	UG/L
	FINAL VOLUME=	50	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.08	(Convert to decimal)
	DILUTION FACTOR=	1	
	SOL=	1.92	UG/G (PPM)

Rico Argentine
SQLS FOR INORGANIC SOIL SAMPLES. SQL = IDL X (FINAL VOLUME /(SAMPLE WEIGHT X % S

21

URS # and EPA # =	MHDD88/RA-SE-06	
MATRIX=	SOIL	
ANALYTES=	Calcium	
INSTRUMENT DETECTION LIMIT (IDL)=	5	UG/L
FINAL VOLUME=	200	ML
SAMPLE WEIGHT=	1.00	GRAMS
% SOLIDS=	0.08	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	12.82	UG/G (PPM)

22

URS # and EPA # =	MHDD88/RA-SE-06	
MATRIX=	SOIL	
ANALYTES=	Iron	
INSTRUMENT DETECTION LIMIT (IDL)=	9	UG/L
FINAL VOLUME=	200	ML
SAMPLE WEIGHT=	1.00	GRAMS
% SOLIDS=	0.08	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	23.08	UG/G (PPM)

23

URS # and EPA # =	MHDD88/RA-SE-06	
MATRIX=	SOIL	
ANALYTES=	Arsenic/Selenium/Thallium	
INSTRUMENT DETECTION LIMIT (IDL)=	2	UG/L
FINAL VOLUME=	200	ML
SAMPLE WEIGHT=	1.00	GRAMS
% SOLIDS=	0.08	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	5.13	UG/G (PPM)

24

URS # and EPA # =	MHDD88/RA-SE-06	
MATRIX=	SOIL	
ANALYTES=	Mercury	
INSTRUMENT DETECTION LIMIT (IDL)=	0.02	UG/L
FINAL VOLUME=	100	ML
SAMPLE WEIGHT=	0.20	GRAMS
% SOLIDS=	0.08	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	0.13	UG/G (PPM)

25

URS # and EPA # =	MHDD88/RA-SE-06	
MATRIX=	SOIL	
ANALYTES=	Beryllium/Cadmium/Copper/Lead/Nickel/Silver	
INSTRUMENT DETECTION LIMIT (IDL)=	1	UG/L
FINAL VOLUME=	200	ML
SAMPLE WEIGHT=	1.00	GRAMS
% SOLIDS=	0.08	(Convert to decimal)
DILUTION FACTOR=	1	
SQL=	2.56	UG/G (PPM)

Rico Argentine
SQLS FOR INORGANIC SOIL SAMPLES. SQL = IDL X (FINAL VOLUME /(SAMPLE WEIGHT X % S

26	URS # and EPA # =	MHDD88/RA-SE-06	
	MATRIX=	SOIL	
	ANALYTES=	Manganese	
	INSTRUMENT DETECTION LIMIT (IDL)=	2	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.08	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	5.00	UG/G (PPM)
27	URS # and EPA # =	MHDD88/RA-SE-06	
	MATRIX=	SOIL	
	ANALYTES=	Zinc	
	INSTRUMENT DETECTION LIMIT (IDL)=	5	UG/L
	FINAL VOLUME=	200	ML
	SAMPLE WEIGHT=	1.00	GRAMS
	% SOLIDS=	0.08	(Convert to decimal)
	DILUTION FACTOR=	1	
	SQL=	12.50	UG/G (PPM)