

100257

APPENDIX B

Data Summary Forms

AR301304

DATA SUMMARY FORM: Semi-volatiles

Name: Standard Chlorine

WATER SAMPLES

+ Result from diluted analysis
To calculate sample quantitation limit:
(CROL * Dilution Factor)

#: R3-2 Sampling Date(s): 11/27-29/89

CROL	Sample No. Dilution Factor	Location	WATER SAMPLES (ug/L)				COMPOUND
			42184 0.9	42187 0.9	42188 0.9	42996 0.9	
10	1,2,3-Trichlorobenzene **	BB-5 Equipment Blank	UL	UL	UL	UL	
10	1,2,4-Trichlorobenzene	BB-5 Equipment Blank	UL	UL	UL	UL	
10	1,2,3,4-Tetrachlorobenzene	BB-5 Equipment Blank	UL	UL	UL	UL	
10	1,2,4,5-Tetrachlorobenzene***	BB-5 Equipment Blank	UL	UL	UL	UL	
10	Pentachlorobenzene	BB-5 Equipment Blank	UL	UL	UL	UL	
10	Hexachlorobenzene	BB-5 Equipment Blank	UL	UL	UL	UL	
10	1-Chloro-3-nitrobenzene	SWR-8	UL	UL	UL	UL	
10	Nitrobenzene	SWR-8	UL	UL	UL	UL	
		SWT-9	UL	UL	UL	UL	
		SWD-18	UL	UL	UL	UL	
		BB-10 Field Blank	UL	UL	UL	UL	

AR301305

CROL = tract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

** 1,2,4-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute. Results presented are for both isomers.

*** 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute. Results presented are for both isomers.

DATA SUMMARY FORM: Semi-volatiles

Site Name: Standard Chlorine
 Case #: R3-2
#4A Sampling Date(s): 12/4 & 12/6/89

WATER SAMPLES
(ug/L)

+ Result from diluted analysis
 To calculate sample quantitation limit:
 (CROL * Dilution Factor)

AR301306

Sample No.	Dilution Factor	Location	COMPOUND	42186	75809	1			
10	1600*	SW6-7	1,2,3-Trichlorobenzene **						
10	1800*		1,2,4-Trichlorobenzene						
10	170		1,2,3,4-Tetrachlorobenzene						
10	89		1,2,4,5-Tetrachlorobenzene***						
10	16	J	Pentachlorobenzene						
10		UT	Hexachlorobenzene						
10			1-Chloro-3-nitrobenzene						
10			Nitrobenzene						

CRDL = fact Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

** 1,2,4-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute. Results presented are for both: NS. revised 12/88

*** 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute. Results presented are for both isomers.

DATA SUMMARY FORM: Semi-volatiles

Site Name: Standard Chlorine

SOIL SAMPLES (ug/Kg)

Case #: A3-2 Sampling Date(s): 11/17, 11/20-21/89

+ Result from diluted analysis To calculate sample quantitation limit: (CRQL * Dilution Factor) / (100 * % moisture)/100

CRQL	COMPOUND	Sample No. Dilution Factor % Moisture Location	40225	40226	40227
		SP-1	SD-2	SD-3	SD-4
			17.4	20.2	12.8
			1	1	1
			40225	40226	40227
			1	1	1
			51/273		
			30.6		
330	1,2,3-Trichlorobenzene **	22,000 L	UL	UL	UL
330	1,2,4-Trichlorobenzene	110,000 L	UL	UL	UL
330	1,2,3,4-Tetrachlorobenzene	570,000 L	UL	UL	UL
330	1,2,4,5-Tetrachlorobenzene***	970,000 L	UL	UL	UL
330	Pentachlorobenzene	32,000 L	UL	UL	UL
330	Hexachlorobenzene	UL	UL	UL	UL
330	1-Chloro-3-nitrobenzene	UL	UL	UL	UL
330	Nitrobenzene	UL	UL	UL	UL

CRQL = react Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

** 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute. Results presented are for both isomers

*** 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute. Results presented for both isomers.

DATA SUMMARY FORM: Semi-volatiles

Site Name: Standard Chlorine

SOIL SAMPLES
(ug/Kg)

Case #: R3-2 Sampling Date(s): 11/27-29/89

+ Result from diluted analysis
To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

AR3 1308

Sample No. Dilution Factor % Moisture Location	45807	45808	46997	46998
50.6	2	2	2	2
	62.7	51.2	54.3	55.5
SR-6	SR-13	SR-14	SR-11	SR-12
CRQL	COMPOUND			
330	1,2,3-Trichlorobenzene **	UL	1000	UL
330	1,2,4-Trichlorobenzene	UL	26000*	UL
330	1,2,3,4-Tetrachlorobenzene	UL	5200*	UL
330	1,2,4,5-Tetrachlorobenzene***	UL	1200	UL
330	Pentachlorobenzene	UL	640	UL
330	Hexachlorobenzene	UL	UL	UL
330	1-Chloro-3-nitrobenzene	UL	UL	UL
330	Nitrobenzene	UL	UL	UL

CRQL = Intract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

** 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute. Results presented are for both isomers

*** 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute. Results presented are for both isomers.

DATA SUMMARY FORM: Semi-volatiles

Site Name: Standard Chlorine

SOIL SAMPLES
(ug/Kg)

Case #: R3-2 Sampling Date(s): 12/4 & 12/6-7/89

+ Result from diluted analysis
To calculate sample quantitation limit:
(CROL * Dilution Factor) / (100 * % moisture)/100

CRQL	Sample No. Dilution Factor	% Moisture	Location	DP-1	DP-2	DP-3	DP-4	DP-5
330	1,2,3-Trichlorobenzene **	5/0	L	UL	190	J	UL	45798
330	1,2,4-Trichlorobenzene	820	L	UL	2200	L	12000	1/2
330	1,2,3,4-Tetrachlorobenzene	430	L	UL	850	L	UL	620
330	1,2,4,5-Tetrachlorobenzene***	3/0	L	UL	1200	L	UL	340
330	Pentachlorobenzene		UL	UL	360	J	UL	6900*
330	Hexachlorobenzene		UL	UL	330	J	UL	310
330	1-Chloro-3-nitrobenzene		UL	UL		UL	UL	
330	Nitrobenzene		UL	UL		UL	UL	

CRQL = Inact Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

** 1,2 Trichlorobenzene and 1,3,5-Trichlorobenzene coelute. Results presented are for both isomers

*** 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-tetrachlorobenzene coelute. Results presented for both isomers.

AR301310

DATA SUMMARY FORM: Semi-volatiles

Site Name: Standard Chlorine

SOIL SAMPLES

Case #: R3-2 Sampling Date(s): 12/11-14/89

+ Result from diluted analysis
To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

CRQL	Sample No. Dilution Factor	% Moisture Location	45799	45800	45801	45802	45803	45804		
			1/3	1/4	57 / 1085	57 / 363	53	49 / 100		
			17.8	28.2	25.4	7.8	35.7	46		
	DP-6	DP-7			DP-8	DP-9	DP-10	DP-11		
330	1,2,3-Trichlorobenzene **	L	3900	1800	L	500000 ⁺	190000 ⁺	160000 ⁺		
330	1,2,4-Trichlorobenzene	J	120	5200 ⁺	L	3800000 ⁺	830000 ⁺	270000		
330	1,2,3,4-Tetrachlorobenzene	L	5900 ⁺	8500 ⁺	L	230000 ⁺	400000 ⁺	290000		
330	1,2,4,5-Tetrachlorobenzene***	L	3500	8700 ⁺	L	370000	86000	110000		
330	Pentachlorobenzene	L	8100 ⁺	10000 ⁺	L	480000 ⁺	61000	25000 J		
330	Hexachlorobenzene	J	210	1300 ⁺	L					
330	1-Chloro-3-nitrobenzene	UL			UL					
330	Nitrobenzene	UL			UL					

SEE NARRATIVE FOR CODE DEFINITIONS

** 1, Trichlorobenzene and 1,3,5- Trichlorobenzene coelute. Results presented are for
bc isomers

*** 1,2,3,5- Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute. Results presented
are for both isomers.

APPENDIX C

Results as reported by the laboratory for all target analytes

AR301311

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: VERSAR

Contract: _____

42184

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____

SDG No.: 3

Matrix: (soil/water) WATER

Lab Sample ID: __69903

Sample wt/vol: 1060 (g/ml) ML

Lab File ID: __Z3357

Level: (low/med) LOW

Date Received: __11/30/89

X Moisture: not dec. _____ dec. _____

Date Extracted: 12/04/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 12/29/89

GPC Cleanup: (Y/N) N

pH: _____

Dilution Factors: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
98-95-3	Nitrobenzene	9	U
120-82-1	1,2,4-Trichlorobenzene	9	U
87-61-6	1,2,3-Trichlorobenzene	9	U
121-73-3	1-Chloro-3-Nitrobenzene	9	U
634-66-2	1,2,3,4-Tetrachlorobenzene	9	U
95-94-3	1,2,4,5-Tetrachlorobenzene	9	U
	Pentachlorobenzene	9	U
118-74-1	Hexachlorobenzene	9	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

1B
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

142187

Lab Name: VERSAR

Contract: _____

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____

SDG No.: 3

Matrix: (soil/water) WATER

Lab Sample ID: 89905

Sample wt/vol: 1060 (g/ml) ML

Lab File ID: Z3359

Level: (low/med) LOW

Date Received: 11/30/89

* Moisture: not dec. _____

dec. _____

Date Extracted: 12/04/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N

pH: _____

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	
98-95-3	Nitrobenzene	9	U
180-82-1	1,2,4-Trichlorobenzene	170	
87-61-6	1,2,3-Trichlorobenzene	44	
121-73-3	1-Chloro-3-Nitrobenzene	9	U
634-66-2	1,2,3,4-Tetrachlorobenzene	9	U
95-94-3	1,2,4,5-Tetrachlorobenzene	9	U
	Pentachlorobenzene	9	U
118-74-1	Hexachlorobenzene	9	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

AR301313

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: VERSAR Contract: 142188

Lab Code: VERSAR Case No.: 420.1.0 SAS No.: _____ SDG No.: 3

Matrix: (soil/water) WATER Lab Sample ID: 89902

Sample wt/vol: 1060 (g/ml) ML Lab File ID: 23362

Level: (low/med) LOW Date Received: 11/30/89

% Moisture: not dec. _____ dec. _____ Date Extracted: 12/04/89

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factors: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	
98-95-3	Nitrobenzene	9	U
120-82-1	1,2,4-Trichlorobenzene	9	U
87-61-6	1,2,3-Trichlorobenzene	9	U
121-73-3	1-Chloro-3-Nitrobenzene	9	U
634-66-2	1,2,3,4-Tetrachlorobenzene	9	U
95-94-3	1,2,4,5-Tetrachlorobenzene	9	U
	Pentachlorobenzene	9	U
118-74-1	Hexachlorobenzene	9	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: VERSAR

Contract: _____

145806

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____

SDG No.: 3

Matrix: (soil/water) WATER

Lab Sample ID: __89506

Sample wt/vol: 1050 (g/ml) ML

Lab File ID: __23360

Level: (low/med) LOW

Date Received: __11/30/89

* Moisture: not dec. _____ dec. _____

Date Extracted: 12/04/89

Extraction: (SepF/Cont/Sonc) CBNT

Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N

pH: _____

Dilution Factor: _ _ _ _ 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) _ug/L	
98-95-3	Nitrobenzene	9	U
120-82-1	1,2,4-Trichlorobenzene	9	U
87-61-6	1,2,3-Trichlorobenzene	9	U
121-73-3	1-Chloro-3-Nitrobenzene	9	U
634-66-2	1,2,3,4-Tetrachlorobenzene	9	U
95-94-3	1,2,4,5-Tetrachlorobenzene	9	U
	Pentachlorobenzene	9	U
118-74-1	Hexachlorobenzene	9	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

146996

Name: VERSAR

Contract: _____

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____

SDG No.: 3

Matrix: (soil/water) WATER

Lab Sample ID: 89904

Sample wt/vol: 1060 (g/ml) ML

Lab File ID: 23358

Level: (low/med) LOW

Date Received: 11/30/89

% Moisture: not dec. _____ dec. _____

Date Extracted: 12/04/89

Extractions: (SepF/Cont/Sonc) CONT

Date Analyzed: 12/30/89

GPC Cleanup: (Y/N) N

pH: _____

Dilution Factor: 1

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

CAS NO.	COMPOUND	CONCENTRATION UNITS:
		(ug/L or ug/Kg) ug/L
98-95-3	Nitrobenzene	9 U
120-82-1	1,2,4-Trichlorobenzene	9 U
87-61-6	1,2,3-Trichlorobenzene	9 U
121-73-3	1-Chloro-3-Nitrobenzene	9 U
634-66-2	1,2,3,4-Tetrachlorobenzene	9 U
95-94-3	1,2,4,5-Tetrachlorobenzene	9 U
	Pentachlorobenzene	9 U
118-74-1	Hexachlorobenzene	9 U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: VERSAR

Contract: _____

142186

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____

SDG No.: 4

Matrix: (soil/water) WATER

Lab Sample ID: 91451

Sample wt/vol: 1020 (g/ml) ML

Lab File ID: Z3397

Level: (low/med) LOW

Date Received: 12/06/89

% Moisture: not dec. _____ dec. _____

Date Extracted: 12/11/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 01/02/90

GPC Cleanup: (Y/N) N

pH: _____

Dilution Factor: 2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	
98-95-3	Nitrobenzene	20	U
120-82-1	1,2,4-Trichlorobenzene		IES
87-61-6	1,2,3-Trichlorobenzene		IE
121-73-3	1-Chloro-3-Nitrobenzene	20	U
634-66-2	1,2,3,4-Tetrachlorobenzene	170	
95-94-3	1,2,4,5-Tetrachlorobenzene	89	
	Pentachlorobenzene	16	IJ
118-74-1	Hexachlorobenzene	20	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: VERSAR

Contract: _____

42186DL

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) WATER

Lab Sample ID: __91451DL

Sample wt/vol: 1020 (g/ml) ML

Lab File ID: __Z3396

Level: (low/med) LOW

Date Received: __12/06/89

% Moisture: not dec. _____ dec. _____

Date Extracted: 12/11/89

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 01/02/90

GPC Cleanup: (Y/N) N

pH: _____

Dilution Factor: _ 20

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	
98-95-3	Nitrobenzene	200	U
120-82-1	1,2,4-Trichlorobenzene	1800	D
87-61-6	1,2,3-Trichlorobenzene	1600	D
121-73-3	1-Chloro-3-Nitrobenzene	200	U
634-66-2	1,2,3,4-Tetrachlorobenzene	200	U
95-94-3	1,2,4,5-Tetrachlorobenzene	200	U
	Pentachlorobenzene	200	U
118-74-1	Hexachlorobenzene	200	U

JB

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

Resubmitted

AR301318

MAR 21 1990

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1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: VERSAR

Contracts: _____

45809

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) WATER

Lab Sample ID: __92015

Sample wt/vol: 1020 (g/ml) ML

Lab File ID: __23393

Level: (low/med) LOW

Date Received: __12/08/89

% Moisture: not dec. _____ dec. _____

Date Extracted: 12/11/89

Extractions: (SepF/Cont/Sonc) CONT

Date Analyzed: 01/02/90

GPC Cleanup: (Y/N) N

pH: _____

Dilution Factor: _ 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	
98-95-3	Nitrobenzene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U
121-73-3	1-Chloro-3-Nitrobenzene	10	U
634-66-2	1,2,3,4-Tetrachlorobenzene	10	U
95-94-3	1,2,4,5-Tetrachlorobenzene	10	U
	Pentachlorobenzene	10	U
118-74-1	Hexachlorobenzene	10	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

40223

Lab Name: VERSAR

Contract: _____

Lab Code: VERSAR

Case No.: 420.1

SAS No.: _____

SDG No.: 1

Matrix: (soil/water) SOIL (g/ml) G

Lab Sample ID: __88089

Sample wt/vol: 1.1

Lab File ID: __Z3406

Level: (low/med) MED

Date Received: __11/20/89

% Moisture: not dec. 30.6 dec. _____

Date Extracted: 11/29/89

Extraction: (SepF/Cont/Sonc) SDNC

Date Analyzed: 01/03/90

GPC Cleanup: (Y/N) N

pH: _____

Dilution Factor: __ 1

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	U
98-95-3	Nitrobenzene	26000	U
120-82-1	1,2,4-Trichlorobenzene		E
87-61-6	1,2,3-Trichlorobenzene	26000	U
121-73-3	1-Chloro-3-Nitrobenzene	26000	
634-66-2	1,2,3,4-Tetrachlorobenzene	210000	
95-94-3	1,2,4,5-Tetrachlorobenzene	400000	
	Pentachlorobenzene	32000	
118-74-1	Hexachlorobenzene	26000	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

Resubmitted
MAR 21 1990 *ced*

AR301320

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

40223

Lab Name: VERSAR

Contract: _____

Lab Code: VERSAR

Case No.: 420.1

SAS No.: _____

SDG No.: 1

Matrix: (soil/water) SOIL (g/ml) G

Lab Sample ID: __88089

Sample wt/vol: 1.1

Lab File ID: __Z3406

Level: (low/med) MED

Date Received: __11/20/89

% Moisture: not dec. 30.6 dec. _____

Date Extracted: 11/29/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/03/90

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

Dilution Factors: _ 1

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) _ug/Kg

98-95-3	Nitrobenzene	26000	U
120-82-1	1,2,4-Trichlorobenzene		E
87-61-6	1,2,3-Trichlorobenzene	26000	U
121-73-3	1-Chloro-3-Nitrobenzene	26000	
634-66-2	1,2,3,4-Tetrachlorobenzene	210000	
95-94-3	1,2,4,5-Tetrachlorobenzene	400000	
	Pentachlorobenzene	32000	
118-74-1	Hexachlorbenzene	26000	U

ced
4/2/90

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

AR301321

Resubmitted
MAR 21 1990 *ced*

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

40223DL

Lab Name: VERSAR

Contract: _____

Lab Code: VERSAR

Case No.: 420.1

SAS No.: _____

SDG No.: 1

Matrix: (soil/water) SOIL (g/ml) G

Lab Sample ID: __88089DL

Sample wt/vol: 1.1

Lab File ID: __Z3411

Level: (low/med) MED

Date Received: __11/20/89

% Moisture: not dec. 30.6 dec. _____

Date Extracted: 11/29/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/03/90

GPC Cleanup: (Y/N) N

pH: _____

Dilution Factor: _____ 5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) _ug/Kg	
98-95-3	Nitrobenzene	130000	U
120-82-1	1,2,4-Trichlorobenzene	1100000	D
87-61-6	1,2,3-Trichlorobenzene	220000	D
121-73-3	1-Chloro-3-Nitrobenzene	130000	U
634-66-2	1,2,3,4-Tetrachlorobenzene	510000	D
95-94-3	1,2,4,5-Tetrachlorobenzene	970000	D
	Pentachlorobenzene	130000	U
118-74-1	Hexachlorobenzene	130000	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

Resubmitted MAR 21 1990
CEX

AR301322

FORM I SV-1

R100036

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

40225

Lab Name: VERSAR

Contract: _____

Lab Code: VERSAR

Case No.: 420.1

SAS No.: _____

SDG No.: 2

Matrix: (soil/water) SOIL (g/ml) G

Lab Sample ID: __88787

Sample wt/vol: 30.41

Lab File ID: __Z3365

Level: (low/med) LOW

Date Received: ___11/22/89

% Moisture: not dec. 17.4 dec. _____

Date Extracted: 12/05/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/30/89

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

Dilution Factor: _ 1

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) _ug/Kg		
98-95-3	Nitrobenzene	400	U	
120-82-1	1,2,4-Trichlorobenzene	400	U	
87-61-6	1,2,3-Trichlorobenzene	400	U	
121-73-3	1-Chloro-3-Nitrobenzene	400	U	
634-66-2	1,2,3,4-Tetrachlorobenzene	400	U	
95-94-3	1,2,4,5-Tetrachlorobenzene	400	U	
	Pentachlorobenzene	400	U	
118-74-1	Hexachlorobenzene	400	U	

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

Resubmitted MAR 21 1989
CER

AR301323

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

40226

Lab Name: VERSAR Contract: _____

Lab Code: VERSAR Case No.: 420.1 SAS No.: _____ SDG No.: 2

Matrix: (soil/water) SOIL (g/ml) G Lab Sample ID: __88788

Sample wt/vol: 29.91 Lab File ID: __Z3392

Level: (low/med) LOW Date Received: __11/22/89

% Moisture: not dec. 20.2 dec. _____ Date Extracted: 12/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/02/90

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: _ 1

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) _ug/Kg
98-95-3	Nitrobenzene	420 U
120-82-1	1,2,4-Trichlorobenzene	420 U
87-61-6	1,2,3-Trichlorobenzene	420 U
121-73-3	1-Chloro-3-Nitrobenzene	420 U
634-66-2	1,2,3,4-Tetrachlorobenzene	420 U
95-94-3	1,2,4,5-Tetrachlorobenzene	420 U
	Pentachlorobenzene	420 U
118-74-1	Hexachlorobenzene	420 U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

AR301324

Resubmitted MAR 21 1990
CEH

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

40227

Lab Name: VERSAR

Contract: _____

Lab Code: VERSAR

Case No.: 420.1

SAS No.: _____

SDG No.: 2

Matrix: (soil/water) SOIL (g/ml) G

Lab Sample ID: __88789

Sample wt/vol: 30.32

Lab File ID: __Z3366

Level: (low/med) LOW

Date Received: __11/22/89

% Moisture: not dec. 20.2 dec. _____

Date Extracted: 12/05/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/30/89

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

Dilution Factor: _ 1

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) _ug/Kg

98-95-3	Nitrobenzene	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
87-61-6	1,2,3-Trichlorobenzene	380	U
121-73-3	1-Chloro-3-Nitrobenzene	380	U
634-66-2	1,2,3,4-Tetrachlorobenzene	380	U
95-94-3	1,2,4,5-Tetrachlorobenzene	380	U
	Pentachlorobenzene	380	U
118-74-1	Hexachlorobenzene	380	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

AR301325

Resubmitted
MAR 21 1990 *cx*

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

40227

Lab Name: VERSAR Contract: _____
 Lab Code: VERSAR Case No.: 420.1 SAS No.: _____ SDG No.: 2
 Matrix: (soil/water) SOIL (g/ml) G Lab Sample ID: __88789
 Sample wt/vol: 30.32 Lab File ID: __23366
 Level: (low/med) LOW ^{5/30/90} *CEX* Date Received: __11/22/89
 % Moisture: not dec. ^{12.8} *CEX* 20.2 dec. _____ Date Extracted: 12/05/89
 Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/30/89
 GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: __ 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) _ug/Kg	
98-95-3	Nitrobenzene	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
87-61-6	1,2,3-Trichlorobenzene	380	U
121-73-3	1-Chloro-3-Nitrobenzene	380	U
634-66-2	1,2,3,4-Tetrachlorobenzene	380	U
95-94-3	1,2,4,5-Tetrachlorobenzene	380	U
	Pentachlorobenzene	380	U
118-74-1	Hexachlorobenzene	380	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

AR301326

Resubmitted
MAR 21 1990 *CEX*

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: VERSAR

Contract: _____

142185

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____ SDG No.: 3

Matrix: (soil/water) SOIL

Lab Sample ID: __89907

Sample wt/vol: 1.00 (g/ml)G

Lab File ID: __Z3425

Level: (low/med) MED

Date Received: __11/30/89

* Moisture: not dec. 63.2 dec. _____

Date Extracted: 12/05/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/04/90

GPC Cleanup: (Y/N)N

pH: 6.71

Dilution Factor: _ 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) _ug/kg	
98-95-3	Nitrobenzene	54000	U
120-82-1	1,2,4-Trichlorobenzene		IE
87-61-6	1,2,3-Trichlorobenzene		IE
121-73-3	1-Chloro-3-Nitrobenzene	54000	U
634-66-2	1,2,3,4-Tetrachlorobenzene		IE
95-94-3	1,2,4,5-Tetrachlorobenzene		IE
	Pentachlorobenzene	270000	
118-74-1	Hexachlorobenzene	54000	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

AR301327

100025

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

42185DL

Lab Name: VERSAR

Contract: -----

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____ SDG No.: 3

Matrix: (soil/water) SOIL

Lab Sample ID: __89907DL

Sample wt/vol: 1.00 (g/ml)G

Lab File ID: __Z3432

Level: (low/med) MED

Date Received: __11/30/89

% Moisture: not dec. 63.2 dec. _____

Date Extracted: 12/05/89

Extraction: (SepF/Cont/Sonc) , SONC

Date Analyzed: 01/04/90

SPC Cleanup: (Y/N)N

pH: 6.71

Dilution Factor: _ 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) _ug/kg

CAS NO.

COMPOUND

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) _ug/kg		
98-95-3	Nitrobenzene	270000	U	
120-82-1	1,2,4-Trichlorobenzene	1900000	ID	
87-61-6	1,2,3-Trichlorobenzene	650000	ID	
121-73-3	1-Chloro-3-Nitrobenzene	270000	U	
634-66-2	1,2,3,4-Tetrachlorobenzene	1100000	ID	
95-94-3	1,2,4,5-Tetrachlorobenzene	1900000	ID	
	Pentachlorobenzene	270000	D	<i>RB</i>
118-74-1	Hexachlorobenzene	270000	U	

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

Resubmitted MAR 21 1990 *ced*

AR301328
FORM I SV-1

R100051

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

145807

Lab Name: VERSAR

Contract: _____

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____ SDG No.: 3

Matrix: (soil/water) SOIL

Lab Sample ID: 89910

Sample wt/vol: 30.03 (g/ml)G

Lab File ID: Z3449

Level: (low/med) LOW

Date Received: 11/30/89

* Moisture: not dec. 62.7 dec. _____

Date Extracted: 12/09/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/05/90

GPC Cleanup: (Y/N)Y

pH: 7.87

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	
98-95-3	Nitrobenzene	1800	U
120-82-1	1,2,4-Trichlorobenzene	1800	U
87-61-6	1,2,3-Trichlorobenzene	1800	U
121-73-3	1-Chloro-3-Nitrobenzene	1800	U
634-66-2	1,2,3,4-Tetrachlorobenzene	1800	U
95-94-3	1,2,4,5-Tetrachlorobenzene	1800	U
	Pentachlorobenzene	1800	U
118-74-1	Hexachlorobenzene	1800	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

1R
 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: VERSAR

Contract: _____

45608

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____

SDG No.: 3

Matrix: (soil/water) SOIL

Lab Sample ID: __89911

Sample wt/vol: 30.48 (g/ml)G

Lab File ID: __23450

Level: (low/med) LOW

Date Received: __11/30/89

% Moisture: not dec. 51.2 dec. _____

Date Extracted: 12/09/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/05/90

GPC Cleanup: (Y/N)Y

pH: 7.69

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	
98-95-3	Nitrobenzene	1300	U
120-82-1	1,2,4-Trichlorobenzene	1400	
87-61-6	1,2,3-Trichlorobenzene	670	IJ
121-73-3	1-Chloro-3-Nitrobenzene	1300	U
634-66-2	1,2,3,4-Tetrachlorobenzene	510	IJ
95-94-3	1,2,4,5-Tetrachlorobenzene	1300	U
	Pentachlorobenzene	1300	U
118-74-1	Hexachlorobenzene	1300	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

46997

Lab Name: VERSAR

Contract: _____

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____ SDG No.: 3

Matrix: (soil/water) SOIL

Lab Sample ID: 89908

Sample wt/vol: 30.32 (g/ml)G

Lab File ID: Z3445

Levels: (low/med) LOW

Date Received: 11/30/89

% Moisture: not dec. 54.3 dec. _____

Date Extracted: 12/09/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/05/90

GPC Cleanup: (Y/N)Y

pH: 7.81

Dilution Factor: 1

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) ug/kg	
98-95-3	Nitrobenzene	1400	U
120-82-1	1,2,4-Trichlorobenzene		IES
87-61-6	1,2,3-Trichlorobenzene	11000	
121-73-3	1-Chloro-3-Nitrobenzene	1400	U
634-66-2	1,2,3,4-Tetrachlorobenzene	5000	
95-94-3	1,2,4,5-Tetrachlorobenzene	1200	IJ
	Pentachlorobenzene	640	IJ
118-74-1	Hexachlorobenzene	1400	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

AR301331

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

46997DL

Lab Name: VERSAR

Contract: _____

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____ SDG No.: 3

Matrix: (soil/water) SOIL

Lab Sample ID: 89908DL

Sample wt/vol: 30.32 (g/ml)G

Lab File ID: 23451

Level: (low/med) LOW

Date Received: 11/30/89

* Moisture: not dec. 54.3 dec. _____

Date Extracted: 12/09/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/05/90

SFC Cleanup: (Y/N) Y

pH: 7.81

Dilution Factor: 3

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	
98-95-3	Nitrobenzene	4300	U
120-82-1	1,2,4-Trichlorobenzene	26000	D
87-61-6	1,2,3-Trichlorobenzene	9500	D
121-73-3	1-Chloro-3-Nitrobenzene	4300	U
634-66-2	1,2,3,4-Tetrachlorobenzene	5200	D
95-94-3	1,2,4,5-Tetrachlorobenzene	4300	U
	Pentachlorobenzene	4300	U
118-74-1	Hexachlorobenzene	4300	U

FB

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

Resubmitted MAR 21 1990 *ck*

AR301332

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ERA SAMPLE NO.

Lab Name: VERSAR

Contract: _____

146998

Lab Code: VERSAR

Case No.: 420.1.0

SAS No.: _____

SDG No.: 3

Matrix: (soil/water) SOIL

Lab Sample ID: 89909

Sample wt/vol: 30.01 (g/ml)G

Lab File ID: 23448

Level: (low/med) LOW

Date Received: 11/30/89

% Moisture: not dec. 55.5 dec. _____

Date Extracted: 12/09/89

Extractions: (SepF/Cont/Sonc) SQNC

Date Analyzed: 01/05/90

GPC Cleanup: (Y/N)Y

pH: 8.11

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg		
98-95-3	Nitrobenzene	1500	U	
120-82-1	1,2,4-Trichlorobenzene	1500	U	
87-61-6	1,2,3-Trichlorobenzene	1500	U	
121-73-3	1-Chloro-3-Nitrobenzene	1500	U	
634-66-2	1,2,3,4-Tetrachlorobenzene	1500	U	
95-94-3	1,2,4,5-Tetrachlorobenzene	1500	U	
	Pentachlorobenzene	1500	U	
118-74-1	Hexachlorobenzene	1500	U	

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

145794

Lab Name: VERSAR

Contract: _____

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL

Lab Sample ID: __91452

Sample wt/vol: 30.03 (g/ml)G

Lab File ID: __Z3400

Level: (low/med) LOW

Date Received: __12/06/89

% Moisture: not dec. 11.6 dec. _____

Date Extracted: 12/16/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/03/90

GPC Cleanup: (Y/N)N

pH: 7.69

Dilution Factor: _ 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) _ug/kg	
98-95-3	Nitrobenzene	380	U
120-82-1	1,2,4-Trichlorobenzene	620	
87-61-6	1,2,3-Trichlorobenzene	510	
121-73-3	1-Chloro-3-Nitrobenzene	380	U
634-66-2	1,2,3,4-Tetrachlorobenzene	430	IX
95-94-3	1,2,4,5-Tetrachlorobenzene	310	IJ
	Pentachlorobenzene	380	U
118-74-1	Hexachlorobenzene	380	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

AR301334

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: VERSAR Contracts: 145795
 Lab Code: VERSAR Case No.: 420.1.0 SAS No.: _____ SDG No.: 5
 Matrix: (soil/water) SOIL Lab Sample ID: 92016
 Sample wt/vol: 30.23 (g/ml) G Lab File ID: 23405
 Levels: (low/med) LOW Date Received: 12/08/89
 % Moisture: not dec. 10.5 dec. _____ Date Extracted: 12/16/89
 Extractions: (SepF/Cont/Sonc) SDNC Date Analyzed: 01/03/90
 GPC Cleanup: (Y/N) N pH: 7.51 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	
98-95-3	Nitrobenzene	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
87-61-6	1,2,3-Trichlorobenzene	370	U
121-73-3	1-Chloro-3-Nitrobenzene	370	U
634-66-2	1,2,3,4-Tetrachlorobenzene	370	U
95-94-3	1,2,4,5-Tetrachlorobenzene	370	U
	Pentachlorobenzene	370	U
118-74-1	Hexachlorobenzene	370	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: VERSAR

Contract: _____

145796

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL

Lab Sample ID: 92017

Sample wt/vol: 30.11 (g/ml)G

Lab File ID: Z3401

Level: (low/med) LOW

Date Received: 12/08/89

% Moisture: not dec. 9.6 dec. _____

Date Extracted: 12/16/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/03/90

GPC Cleanup: (Y/N)N

pH: 7.51

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	
98-95-3	Nitrobenzene	370	U
120-82-1	1,2,4-Trichlorobenzene	2200	
87-61-6	1,2,3-Trichlorobenzene	190	IJ
121-73-3	1-Chloro-3-Nitrobenzene	370	U
634-66-2	1,2,3,4-Tetrachlorobenzene	850	
95-94-3	1,2,4,5-Tetrachlorobenzene	1200	
	Pentachlorobenzene	360	IJ
118-74-1	Hexachlorobenzene	330	IJ

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: VERSAR Contract: _____ EPA SAMPLE NO. 145797

Lab Code: VERSAR Case No.: 420.1.0 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL Lab Sample ID: __92018

Sample wt/vol: 1.07 (g/ml)G Lab File ID: __Z3413

Level: (low/med) MED Date Received: __12/08/89

% Moisture: not dec. 8.8 dec. _____ Date Extracted: 12/16/89

Extractions: (SepF/Cont/Sonc) SONC Date Analyzed: 01/30/90

GPC Cleanup: (Y/N)N pH: 6.11 Dilution Factors: _ 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	
98-95-3	Nitrobenzene	21000	U
120-82-1	1,2,4-Trichlorobenzene	12000	J
87-61-6	1,2,3-Trichlorobenzene	21000	U
121-73-3	1-Chloro-3-Nitrobenzene	21000	U
634-66-2	1,2,3,4-Tetrachlorobenzene	21000	U
95-94-3	1,2,4,5-Tetrachlorobenzene	21000	U
	Pentachlorobenzene	21000	U
118-74-1	Hexachlorobenzene	21000	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: VERSAR

Contract: _____

145798

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____ SDG No.: 5

Matrix: (soil/water) SOIL

Lab Sample ID: __92019

Sample wt/vol: 30.17 (g/ml)G

Lab File ID: __Z3402

Level: (low/med) LOW

Date Received: __12/08/89

% Moisture: not dec. 11.4 dec. _____

Date Extracted: 12/16/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/03/90

GFC Cleanup: (Y/N)N

pH: 4.10

Dilution Factor: _ 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) _ug/kg		
98-95-3	Nitrobenzene	370	U	
120-82-1	1,2,4-Trichlorobenzene	370	U	
87-61-6	1,2,3-Trichlorobenzene	370	U	
121-73-3	1-Chloro-3-Nitrobenzene	370	U	
634-66-2	1,2,3,4-Tetrachlorobenzene	620		
95-94-3	1,2,4,5-Tetrachlorobenzene	340	IJ	
	Pentachlorobenzene		IE	
118-74-1	Hexachlorobenzene	310	IJ	

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: VERSAR

Contract: _____

145798DL

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____

SDG No.: 5

Matrix: (soil/water) SOIL

Lab Sample ID: __92019DL

Sample wt/vol: 30.17 (g/ml)G

Lab File ID: __Z3410

Level: (low/med) LOW

Date Received: __12/08/89

* Moisture: not dec. 11.4 dec. _____

Date Extracted: 12/16/89

Extractions: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/03/90

GPC Cleanup: (Y/N)N

pH: 4.10

Dilution Factors: _ 2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) _ug/kg	
98-95-3	Nitrobenzene	750	U
120-82-1	1,2,4-Trichlorobenzene	750	U
87-61-6	1,2,3-Trichlorobenzene	750	U
121-73-3	1-Chloro-3-Nitrobenzene	750	U
634-66-2	1,2,3,4-Tetrachlorobenzene	750	U
95-94-3	1,2,4,5-Tetrachlorobenzene	750	U
	Pentachlorobenzene	6700	D
118-74-1	Hexachlorobenzene	750	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

AR301339

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Name: VERSAR

Contract: _____

145799

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____ SDG No.: 6

Matrix: (soil/water) SOIL

Lab Sample ID: 93044

Sample wt/vol: 30.44 (g/ml)G

Lab File ID: 23422

Level: (low/med) LOW

Date Received: 12/15/89

% Moisture: not dec. 17.8 dec. _____

Date Extracted: 12/22/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/04/90

GPC Cleanup: (Y/N)N

pH: 6.88

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	
98-95-3	Nitrobenzene	400	U
120-82-1	1,2,4-Trichlorobenzene	120	IX
87-61-6	1,2,3-Trichlorobenzene	3900	
121-73-3	1-Chloro-3-Nitrobenzene	400	U
634-66-2	1,2,3,4-Tetrachlorobenzene		IE
95-94-3	1,2,4,5-Tetrachlorobenzene	3500	
	Pentachlorobenzene		IE
118-74-1	Hexachlorobenzene	210	IX

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

145799DL

Lab Name: VERSAR

Contract: _____

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____

SDG No.: 6

Matrix: (soil/water) SOIL

Lab Sample ID: __93044DL

Sample wt/vol: 30.44 (g/ml)G

Lab File ID: __Z3433

Level: (low/med) LOW

Date Received: __12/15/89

* Moisture: not dec. 17.8 dec. _____

Date Extracted: 12/22/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/04/90

GFC Cleanup: (Y/N)N

pH: 6.88

Dilution Factor: _ 3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) _ug/kg	
98-95-3	Nitrobenzene	1200	U
120-82-1	1,2,4-Trichlorobenzene	1200	U
87-61-6	1,2,3-Trichlorobenzene	2500	D
121-73-3	1-Chloro-3-Nitrobenzene	1200	U
634-66-2	1,2,3,4-Tetrachlorobenzene	5800	ID
95-94-3	1,2,4,5-Tetrachlorobenzene	3500	D
	Pentachlorobenzene	8100	ID
118-74-1	Hexachlorobenzene	1200	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

AR301341

Resubmitted
MAR 21 1990 *cew*

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Name: VERSAR

Contract: _____

45800

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.:

SDG No.: 6

Matrix: (soil/water) SOIL

Lab Sample ID: 93045

Sample wt/vol: 30.68 (g/ml)G

Lab File ID: Z3423

Level: (low/med) LOW

Date Received: 12/15/89

% Moisture: not dec. 28.2 dec. _____

Date Extracted: 12/22/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/04/90

GPC Cleanup: (Y/N)N

pH: 7.01

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg		
98-95-3	Nitrobenzene	450	U	
120-82-1	1,2,4-Trichlorobenzene		IE	
87-61-6	1,2,3-Trichlorobenzene	1800		
121-73-3	1-Chloro-3-Nitrobenzene	450	U	
634-66-2	1,2,3,4-Tetrachlorobenzene		IE	
95-94-3	1,2,4,5-Tetrachlorobenzene	8500		
	Pentachlorobenzene		IE	
118-74-1	Hexachlorobenzene	1200		

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: VERSAR

Contract: _____

145800DL

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____

SDG No.: 6

Matrix: (soil/water) SOIL

Lab Sample ID: __93045DL

Sample wt/vol: 30.68 (g/ml)G

Lab File ID: __Z3434

Level: (low/med) LOW

Date Received: __12/15/89

% Moisture: not dec. 28.2 dec. _____

Date Extracted: 12/22/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/04/90

GPC Cleanup: (Y/N)N

pH: 7.01

Dilution Factors: _ 4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg
98-95-3	Nitrobenzene	1800 U
120-82-1	1,2,4-Trichlorobenzene	5200 ID
87-61-6	1,2,3-Trichlorobenzene	1600 ID
121-73-3	1-Chloro-3-Nitrobenzene	1800 U
634-66-2	1,2,3,4-Tetrachlorobenzene	8500 ID
95-94-3	1,2,4,5-Tetrachlorobenzene	8700 ID
	Pentachlorobenzene	10000 ID
118-74-1	Hexachlorobenzene	1300 ID

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

AR301343

Resubmitted
MAR 21 1990 *CEK*

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Site Name: VERSAR

Contract: _____

45801

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____

SDG No.: 6

Matrix: (soil/water) SOIL

Lab Sample ID: 93046

Sample wt/vol: 1.12 (g/ml) G

Lab File ID: Z3417

Level: (low/med) MED

Date Received: 12/15/89

* Moisture: not dec. 25.4 dec. _____

Date Extracted: 12/21/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/03/90

GPC Cleanup: (Y/N) N

pH: 6.96

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	
98-95-3	Nitrobenzene	24000	U
120-82-1	1,2,4-Trichlorobenzene		IE
87-61-6	1,2,3-Trichlorobenzene		IE
121-73-3	1-Chloro-3-Nitrobenzene	24000	U
634-66-2	1,2,3,4-Tetrachlorobenzene		IE
95-94-3	1,2,4,5-Tetrachlorobenzene	370000	
	Pentachlorobenzene	24000	
118-74-1	Hexachlorobenzene	24000	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

145801DL

Lab Name: VERSAR

Contract: _____

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____ SDG No.: 6

Matrix: (soil/water) SOIL

Lab Sample ID: __93046DL

Sample wt/vol: 1.12 (g/ml) G

Lab File ID: __Z3435

Level: (low/med) MED

Date Received: __12/15/89

* Moisture: not dec. 25.4 dec. _____

Date Extracted: 12/21/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/04/90

GPC Cleanup: (Y/N) N

pH: 6.96

Dilution Factor: _ 20

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) _ug/kg

98-95-3	Nitrobenzene	480000	U
120-82-1	1,2,4-Trichlorobenzene	3800000	ID
87-61-6	1,2,3-Trichlorobenzene	500000	ID
121-73-3	1-Chloro-3-Nitrobenzene	480000	U
634-66-2	1,2,3,4-Tetrachlorobenzene	230000	ID
95-94-3	1,2,4,5-Tetrachlorobenzene	260000	D
	Pentachlorobenzene	480000	U
118-74-1	Hexachlorobenzene	480000	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

Resubmitted
MAR 21 1990 *ce*

AR301345
FORM I SV-1

R100124

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: VERSAR Contract: _____
 Lab Code: VERSAR Case No.: 420.1.0 SAS No.: _____ SDG No.: 6
 Matrix: (soil/water) SOIL Lab Sample ID: __93047
 Sample wt/vol: 1.12 (g/ml) G Lab File ID: __23418
 Level: (low/med) MED Date Received: __12/15/89
 % Moisture: not dec. 7.8 dec. _____ Date Extracted: 12/21/89
 Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/03/90
 GPC Cleanup: (Y/N) N pH: 7.02 Dilution Factor: _ 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	
98-95-3	Nitrobenzene	19000	U
120-82-1	1,2,4-Trichlorobenzene		IE
87-61-6	1,2,3-Trichlorobenzene		IE
121-73-3	1-Chloro-3-Nitrobenzene	19000	U
634-66-2	1,2,3,4-Tetrachlorobenzene		IE
95-94-3	1,2,4,5-Tetrachlorobenzene	86000	
	Pentachlorobenzene	61000	
118-74-1	Hexachlorobenzene	19000	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

100144

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

45802DL

Lab Name: VERSAR

Contract: _____

Lab Code: VERSAR

Case No.: 420.1.0

SAS No.: _____

SDG No.: 6

Matrix: (soil/water) SOIL

Lab Sample ID: 93047DL

Sample wt/vol: 1.12 (g/ml) G

Lab File ID: 23436

Level: (low/med) MED

Date Received: 12/15/89

* Moisture: not dec. 7.8 dec. _____

Date Extracted: 12/21/89

Extraction: (SepF/Cont/Sonc) SGNC

Date Analyzed: 01/04/90

GPC Cleanup: (Y/N) N

pH: 7.02

Dilution Factor: 7

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/kg

98-95-3	Nitrobenzene	130000	U
120-82-1	1,2,4-Trichlorobenzene	830000	ID
87-61-6	1,2,3-Trichlorobenzene	190000	ID
121-73-3	1-Chloro-3-Nitrobenzene	130000	U
634-66-2	1,2,3,4-Tetrachlorobenzene	410000	ID
95-94-3	1,2,4,5-Tetrachlorobenzene	85000	DJ
	Pentachlorobenzene	56000	DJ
118-74-1	Hexachlorobenzene	130000	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

Resubmitted
MAR 21 1990 *CEX*

AR301347

FORM I SU-1

R100167

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Name: VERSAR

Contract: _____

145803

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____

SDG No.: 6

Matrix: (soil/water) SOIL

Lab Sample ID: 93048

Sample wt/vol: 1.15 (g/ml)G

Lab File ID: Z3419

Level: (low/med) MED

Date Received: 12/15/89

* Moisture: not dec. 35.7 dec. _____

Date Extracted: 12/21/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/04/90

GPC Cleanup: (Y/N)N

pH: 7.12

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	
98-95-3	Nitrobenzene	27000	U
120-82-1	1,2,4-Trichlorobenzene	270000	
87-61-6	1,2,3-Trichlorobenzene	130000	
121-73-3	1-Chloro-3-Nitrobenzene	27000	U
634-66-2	1,2,3,4-Tetrachlorobenzene	180000	
95-94-3	1,2,4,5-Tetrachlorobenzene	110000	
	Pentachlorobenzene	25000	J
118-74-1	Hexachlorobenzene	27000	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: VERSAR

Contract: _____

145804

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____

SDG No.: 6

Matrix: (soil/water) SOIL

Lab Sample ID: __93049

Sample wt/vol: 1.22 (g/ml)G

Lab File ID: __23420

Level: (low/med) MED

Date Received: __12/15/89

* Moisture: not dec. 46 dec. _____

Date Extracted: 12/21/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/04/90

GPC Cleanup: (Y/N)N

pH: 7.18

Dilution Factor: _ 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	
98-95-3	Nitrobenzene	30000	U
120-82-1	1,2,4-Trichlorobenzene		IE
87-61-6	1,2,3-Trichlorobenzene	140000	
121-73-3	1-Chloro-3-Nitrobenzene	30000	U
634-66-2	1,2,3,4-Tetrachlorobenzene	290000	
95-94-3	1,2,4,5-Tetrachlorobenzene	150000	
	Pentachlorobenzene	40000	
118-74-1	Hexachlorobenzene	30000	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

45804DL

Lab Name: VERSAR

Contract: _____

Lab Code: VERSAR Case No.: 420.1.0 SAS No.: _____ SDG No.: 6

Matrix: (soil/water) SOIL Lab Sample ID: 93049DL

Sample wt/vol: 1.22 (g/ml) G Lab File ID: Z3437

Level: (low/med) MED Date Received: 12/15/89

% Moisture: not dec. 46 dec. _____ Date Extracted: 12/21/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/04/90

GPC Cleanup: (Y/N) N pH: 7.18 Dilution Factor: 2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	
98-95-3	Nitrobenzene	61000	U
120-82-1	1,2,4-Trichlorobenzene	340000	D
87-61-6	1,2,3-Trichlorobenzene	160000	D
121-73-3	1-Chloro-3-Nitrobenzene	61000	U
634-66-2	1,2,3,4-Tetrachlorobenzene	260000	D
95-94-3	1,2,4,5-Tetrachlorobenzene	140000	D
	Pentachlorobenzene	34000	DJ
118-74-1	Hexachlorobenzene	61000	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

Resubmitted
MAR 21 1990 *cen*

AR301350
FORM I SU-1

R100231

APPENDIX D
Support Documentation

AR301351

CALIBRATION CHECK - SEMIVOLATILE HSL COMPOUNDS

CASE NO. _____

CONTRACT LAB: VERSAR

CONTRACT NO. _____

INSTRUMENT IDENTIFIER: Z

CALIBRATION DATE: 12/28/89

STANDARD FILE: Z3355

DATE: 12/29/89 TIME: 21:46

MINIMUM RF FOR SPCC IS .0500

MAXIMUM % D FOR CCC IS 25%

COMPOUND	MEAN RF(I)	RF(O)	% D
C410 NITROBENZENE	0.430	0.423	1.462 1.64
C445 1,2,4-TRICHLOROBENZENE	0.450	0.440	2.147 2.25
C630 HEXACHLOROBENZENE	0.315	0.281	10.618 11.41
C--- 1-CHLORO-3-NITROBENZENE	0.284	0.409	43.905 <u>36.08</u>
C--- 1235/1245 TETRACHLOROBE	0.738	0.660	10.603 11.16
C--- 1234-TETRACHLOROBENZENE	0.695	0.648	6.803 6.99
C--- PENTACHLOROBENZENE	0.760	0.700	7.886 8.22

CEL
3/30/90

*Associated
Samples:*

SBLK64
40225
40227
42188MSD
42184
46996
42187
45806
SBLK49
42188
42188MS

AR301352

200604

CALIBRATION CHECK - SEMIVOLATILE HSL COMPOUNDS

CASE NO. _____

CONTRACT LAB: VERSAR

CONTRACT NO. _____

INSTRUMENT IDENTIFIER: Z

CALIBRATION DATE: 12/28/89

STANDARD FILE: Z3370

DATE: 12/30/89 TIME: 14:27

MINIMUM RF FOR SPCC IS .0500

MAXIMUM % D FOR CCC IS 25%

COMPOUND	MEAN RF(I)	RF(O)	% D
C410 NITROBENZENE	0.430	0.347	19.274 21.4
C445 1,2,4-TRICHLOROBENZENE	0.450	0.380	15.514 16.9
C--- 1-CHLORO-3-NITROBENZENE	0.284	0.277	2.499 2.5
C--- 1235/1245 TETRACHLOROBE	0.738	0.610	17.353 19.0
C--- 1234-TETRACHLOROBENZENE	0.695	0.585	15.738 17.2
C--- PENTACHLOROBENZENE	0.760	0.573	24.631 28.1
C630 HEXACHLOROBENZENE	0.315	0.232	26.147 30.3

CEU
3/30/90

Mats Ongoing Calibration

Criteria

90%

12-30-89

*Associated
Samples:*

SBLK34

AR301353

CALIBRATION CHECK - SEMIVOLATILE HSL COMPOUNDS

CASE NO. _____ CONTRACT LAB: VERSAR
 CONTRACT NO. _____ INSTRUMENT IDENTIFIER: Z
 CALIBRATION DATE: 12/28/89
 STANDARD FILE: Z3391
 DATE: 1/2/90 TIME: 15:50
 MINIMUM RF FOR SPCC IS .0500
 MAXIMUM % D FOR CCC IS 25%

COMPOUND	MEAN RF(I)	RF(O)	% D
C410 NITROBENZENE	0.430	0.425	1.046 1.2
C445 1,2,4-TRICHLOROBENZENE	0.450	0.429	4.478 4.8
C--- 1-CHLORO-3-NITROBENZENE	0.284	0.363	27.747 24.4
C--- 1235/1245 TETRACHLOROBE	0.738	0.664	10.056 10.6
C--- 1234-TETRACHLOROBENZENE	0.695	0.660	4.990 5.2
C--- PENTACHLOROBENZENE	0.760	0.633	16.810 18.2
C630 HEXACHLOROBENZENE	0.315	0.208	33.928 40.9

*Associated
 Samples:*

40226
 40226MS
 40226MSD
 40226MSDR1

45809
 42186DL
 42186
 SBLK56
 43794
 45796
 45798

AR301354

CALIBRATION CHECK - SEMIVOLATILE HSL COMPOUNDS

CASE NO. _____

CONTRACT LAB: VERSAK

CONTRACT NO. _____

INSTRUMENT IDENTIFIER: Z

CALIBRATION DATE: 12/28/89

STANDARD FILE: Z3404

DATE: 1/3/89 TIME: 8:21

MINIMUM RF FOR SPCC IS .0500

MAXIMUM % D FOR CCC IS 25%

COMPOUND	MEAN RF(I)	RF(O)	% D
C410 NITROBENZENE	0.430	0.466	8.417 8.0
C445 1,2,4-TRICHLOROBENZENE	0.450	0.391	12.749 14.0
C--- 1-CHLORO-3-NITROBENZENE	0.284	0.356	25.132 22.5
C--- 1235/1245 TETRACHLOROBE	0.738	0.765	-3.670 3.6
C--- 1234-TETRACHLOROBENZENE	0.695	0.750	7.893 7.6
C--- PENTACHLOROBENZENE	0.760	0.743	2.353 2.3
C630 HEXACHLOROBENZENE	0.315	0.211	33.043 39.5

CEK
3/30/90

Continuing Calibration UKey
J. C. Kal. 1/3/90

Associated Samples:

- 40223*
- 40223MS*
- 40223MSD*
- 5BLK71*
- 40223DL*

CALIBRATION CHECK - SEMIVOLATILE HSL COMPOUNDS

CASE NO. _____

CONTRACT LAB: VERSAR

CONTRACT NO. _____

INSTRUMENT IDENTIFIER: Z

CALIBRATION DATE: 12/28/89

STANDARD FILE: Z3431

DATE: 1/4/90 TIME: 11:29

MINIMUM RF FOR SPCC IS .0500

MAXIMUM % D FOR CCC IS 25%

COMPOUND	MEAN RF(I)	RF(O)	% D
C410 NITROBENZENE	0.430	0.420	2.174 2.4
C445 1,2,4-TRICHLORO BENZENE	0.450	0.410	8.815 9.3
C--- 1-CHLORO-3-NITROBENZENE	0.284	0.413	45.160 37.0
C--- 1235/1245 TETRACHLOROBE	0.738	0.758	2.706 2.7
C--- 1234-TETRACHLORO BENZENE	0.695	0.758	9.029 8.7
C--- PENTACHLORO BENZENE	0.760	0.748	1.579 1.6
C630 HEXACHLORO BENZENE	0.315	0.260	17.501 19.1

CCP
3/30/90

Okay for continuing calibration SE 1/4/90

associated
sample:

42185DL

AR301356

CASE NO. _____
 CONTRACT NO. _____
 CALIBRATION DATE: 12/28/89
 STANDARD FILE: Z3443
 DATE: 1/4/90 TIME: 23:27
 MINIMUM RF FOR SPCC IS .0500
 MAXIMUM % D FOR CCC IS 25%

CONTRACT LAB: VERSAK
 INSTRUMENT IDENTIFIER: Z

COMPOUND	MEAN RF(I)	RF(O)	% D
C410 NITROBENZENE	0.430	0.442	2.926 2.8
C445 1,2,4-TRICHLOROBENZENE	0.450	0.410	8.875 9.3
C--- 1-CHLORO-3-NITROBENZENE	0.284	0.371	30.660 26.6
C--- 1235/1245 TETRACHLOROBE	0.738	0.750	1.629 1.6
C--- 1234-TETRACHLOROBENZENE	0.695	0.739	6.296 6.1
C--- PENTACHLOROBENZENE	0.760	0.718	5.610 5.7
C630 HEXACHLOROBENZENE	0.315	0.255	18.927 21.1

CEM
 3/30/90

*Associated
 Samples:*

SBLK97
 46997
 46997MS
 46997MSD
 46998
 45807
 45808
 46997DL

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Name: VERSAR

Contract: _____

146997MS

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.:

SDG No.: 3

Matrix: (soil/water) SOIL

Lab Sample ID: 69904MS

Sample wt/vol: 30.04 (g/ml)G

Lab File ID: Z3446

Level: (low/med) LOW

Date Received: 11/30/89

Moisture: not dec. 54.3 dec. _____

Date Extracted: 12/09/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/05/90

PC Cleanup: (Y/N) Y

pH: 7.81

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	
98-95-3	Nitrobenzene	1500	U
120-82-1	1,2,4-Trichlorobenzene		Y
87-61-6	1,2,3-Trichlorobenzene	11000	
121-73-3	1-Chloro-3-Nitrobenzene	1500	U
634-66-2	1,2,3,4-Tetrachlorobenzene	6300	
95-94-3	1,2,4,5-Tetrachlorobenzene	2600	
	Pentachlorobenzene	930	
118-74-1	Hexachlorobenzene	1500	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LAB Name: VERSAR

Contract: _____

146997MSD

Lab Code: VERSAR

Case No.: 420.1.0 SAS No.: _____ SDG No.: 3

Matrix: (soil/water) SOIL

Lab Sample ID: 89908MSD

Sample wt/vol: 30.77 (g/ml)G

Lab File ID: Z3447

Level: (low/med) LOW

Date Received: 11/30/89

% Moisture: not dec. 54.3 dec. _____

Date Extracted: 12/09/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/05/90

GPC Cleanup: (Y/N) Y

pH: 7.81

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	
98-95-3	Nitrobenzene	1400	U
120-82-1	1,2,4-Trichlorobenzene		Y
87-61-6	1,2,3-Trichlorobenzene	11000	
121-73-3	1-Chloro-3-Nitrobenzene	1400	U
634-66-2	1,2,3,4-Tetrachlorobenzene	7000	
95-94-3	1,2,4,5-Tetrachlorobenzene	1800	
	Pentachlorobenzene	1200	J
118-74-1	Hexachlorobenzene	1400	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

AR301359

200305

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

40226MS

Lab Name: VERSAR Contract: _____

Lab Code: VERSAR Case No.: 420.1 SAS No.: _____ SDG No.: 2

Matrix: (soil/water) SOIL (g/ml) G Lab Sample ID: 88788MS

Sample wt/vol: 30.01 Lab File ID: Z3394

Level: (low/med) LOW Date Received: 11/22/89

* Moisture: not dec. 20.2 dec. _____ Date Extracted: 12/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/02/90

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg
98-95-3	Nitrobenzene	420 U
120-82-1	1,2,4-Trichlorobenzene	420 U
87-61-6	1,2,3-Trichlorobenzene	420 U
121-73-3	1-Chloro-3-Nitrobenzene	420 U
634-66-2	1,2,3,4-Tetrachlorobenzene	420 U
95-94-3	1,2,4,5-Tetrachlorobenzene	420 U
	Pentachlorobenzene	420 U
118-74-1	Hexachlorobenzene	420 U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

AR301360

Resubmitted MAR 21 1990
CEH

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

40226MSD

Lab Name: VERSAR Contract: _____

Lab Code: VERSAR Case No.: 420.1 SAS No.: _____ SDG No.: 2

Matrix: (soil/water) SOIL (g/ml) G Lab Sample ID: __88788MSD

Sample wt/vol: 29.93 Lab File ID: __Z3395

Level: (low/med) LOW Date Received: __11/22/89

% Moisture: not dec. 20.2 dec. _____ Date Extracted: 12/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/02/90

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: _ 1

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

CAS NO.	COMPOUND		
98-95-3	Nitrobenzene	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
87-61-6	1,2,3-Trichlorobenzene	420	U
121-73-3	1-Chloro-3-Nitrobenzene	420	U
634-66-2	1,2,3,4-Tetrachlorobenzene	420	U
95-94-3	1,2,4,5-Tetrachlorobenzene	420	U
	Pentachlorobenzene	420	U
118-74-1	Hexachlorobenzene	420	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

Resubmitted
MAR 21 1990 *can*

AR301361

FORM I SV-1

R 100146

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

40223MS

Lab Name: VERSAR Contract: _____

Lab Code: VERSAR Case No.: 420.1 SAS No.: _____ SDG No.: 1

Matrix: (soil/water) SOIL (g/ml) G Lab Sample ID: 88089MS

Sample wt/vol: 1.15 Lab File ID: Z3407

Level: (low/med) MED Date Received: 11/20/89

X Moisture: not dec. 30.6 dec. _____ Date Extracted: 11/29/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/03/90

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg		
98-95-3	Nitrobenzene	25000	U	
120-82-1	1,2,4-Trichlorobenzene		Y	
87-61-6	1,2,3-Trichlorobenzene	25000	U	
121-73-3	1-Chloro-3-Nitrobenzene	25000	U	
634-66-2	1,2,3,4-Tetrachlorobenzene	250000		
95-94-3	1,2,4,5-Tetrachlorobenzene	58000		
	Pentachlorobenzene	41000		
118-74-1	Hexachlorbenzene	25000	U	

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

AR301362

Resubmitted
MAR 21 1990 *CEN*

1R
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

40223MSD

Lab Name: VERSAR

Contract: _____

Lab Code: VERSAR

Case No.: 420.1

SAS No.: _____

SDG No.: 1

Matrix: (soil/water) SOIL (g/ml) G

Lab Sample ID: __88089MSD

Sample wt/vol: 1.15

Lab File ID: __Z3408

Level: (low/med) MED

Date Received: __11/20/89

% Moisture: not dec. 30.6 dec. _____

Date Extracted: 11/29/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/03/90

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

Dilution Factor: _ 1

CONCENTRATION UNITS:

(ug/L or ug/Kg) _ug/Kg

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) _ug/Kg	
98-95-3	Nitrobenzene	27000	U
120-82-1	1,2,4-Trichlorobenzene		Y
87-61-6	1,2,3-Trichlorobenzene	27000	U
121-73-3	1-Chloro-3-Nitrobenzene	27000	U
634-66-2	1,2,3,4-Tetrachlorobenzene	360000	
95-94-3	1,2,4,5-Tetrachlorobenzene	74000	
	Fentachlorobenzene	55000	
118-74-1	Hexachlorbenzene	27000	U

- 1) 1,2,3-Trichlorobenzene and 1,3,5-Trichlorobenzene coelute and cannot be quantified separately.
- 2) 1,2,3,5-Tetrachlorobenzene and 1,2,4,5-Tetrachlorobenzene coelute and cannot be quantified separately.

AR301363

Resubmitted
MAR 21 1990 *ce*

CHAIN OF COLD BODY RECORD

PROJECT NO. 5303.500.03		PROJECT NAME SCD		PARAMETERS		INDUSTRIAL HYGIENE SAMPLE	Y	N
SAMPLERS: (Signature) <i>David Spencer</i>		(Printed) David Spencer		NO. OF CONTAINERS		REMARKS		
FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION			
40225	11/20/89	1340		X	SD-2	1		CASE # R3-2 Fibered Disk/2087
40226	11/20/89	1540		X	SD-3	1		Domestic 11/20/89
40227	11/21/89	1205		X	SD-4	1		
AR301364								
Relinquished by: (Signature) <i>David Spencer</i>	Date / Time 11/21/89 17:00	Received by: (Signature) <i>D.A. Morrison</i>	Date / Time 11/22/89 9:15 AM	Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Remarks Shipped via Federal Express Axe Bill No. 4575147504	
(Printed) DAVID S. SPENCER		(Printed)		(Printed)		(Printed)		
Relinquished (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time					
(Printed)		(Printed)						

CHAIN OF CUSTODY RECORD

PROJECT NO.		PROJECT NAME		INDUSTRIAL HYGIENE SAMPLE		Y	
C03041		SCD				IN	
SAMPLERS: (Signature)		STATION LOCATION		PARAMETERS		REMARKS	
Russell J. Meier		Russell J. Meier L. Woodings				LOW SEDIMENTS + SURFACE WATER + SOILS	
FIELD SAMPLE NUMBER	DATE	TIME	NO. OF CONTAINERS	NO. OF CONTAINERS	DATE / TIME	DATE / TIME	REMARKS
40223	11/17/89	11:40	1	1	11/18/89	0900	CASE # R32 ITR # OTR ^{TE} MCE 72 C2415
<p>TRUCKS RETURNED TO METALWORKERS UNION 10750 BERTHOUD AVE. WILSON, VA 22192</p>							
Relinquished		Received by: (Signature)		Relinquished by: (Signature)		Received by: (Signature)	
L. Meier		L. Woodings		L. Woodings		L. Woodings	
(Printed)		(Printed)		(Printed)		(Printed)	
Date / Time		Date / Time		Date / Time		Date / Time	
11-17-89 1800		11/18/89 0900		11/18/89 0900		11/18/89 0900	
Remarks		Remarks		Remarks		Remarks	
SHIPPED TO: VERSAR INC. 6850 VERSAR CENTER SPRINGFIELD, VA 22151 (703) 750-3800 ATTN: DEV HIGHINGS + TRUY BERRY		SHIPPED TO: VERSAR INC. 6850 VERSAR CENTER SPRINGFIELD, VA 22151 (703) 750-3800 ATTN: DEV HIGHINGS + TRUY BERRY		SHIPPED TO: VERSAR INC. 6850 VERSAR CENTER SPRINGFIELD, VA 22151 (703) 750-3800 ATTN: DEV HIGHINGS + TRUY BERRY		SHIPPED TO: VERSAR INC. 6850 VERSAR CENTER SPRINGFIELD, VA 22151 (703) 750-3800 ATTN: DEV HIGHINGS + TRUY BERRY	

PROJECT NAME	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE	Y					
SCD	SCD		N					
FIELD SAMPLE NUMBER	DATE	TIME	CONC.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PARAMETERS	REMARKS
42188	11/27/89	1505		X	SWT-9 Do ms/msd	4		case # R3-2
42184	11/27/89	1715		X	BB-10	2		Do ms/msd
45806	11/27/89	1853		X	BB-5	2		FIELD BLANK
46997	11/27/89	1505		X	SWD-18	2		EQ. BLANK
46998	11/27/89	1155		X	SR-11	1		Do ms/msd
45807	11/27/89	1310		X	SR-12	1		
45808	11/27/89	1550		X	SR-13	1		
42187	11/28/89	1155		X	SR-14	1		
42185	11/29/89	1445		X	SWR-8	2		
	11/27/89	1250		X	SB-4	1		

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
<i>David Spencor</i>	11/27/89 1930					
(Printed)		(Printed)		(Printed)		
DAVID SPENCOR						
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks		
<i>David Spencor</i>				Shipped Via Federal Express Air Bill No. 4575149456		
(Printed)		(Printed)				
DAVID SPENCOR						

AR301366

Distribution: Original (white and yellow); Copy to Coordinator Field Files (pink).
 One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).
no signature for receipt

20
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: VERSAR

Contract: _____

Lab Code: VERSAR

Case No.: 420.1.0

SAS No.: _____

SDG No.: 3

Level: (low/med) _____ LOW

EPA	S1	S2	S3	S4	S5	S6	OTHER	TOT
SAMPLE NO.	(NBZ)#	(FBP)#	(TPH)#	(PHL)#	(ZFP)#	(TRP)#		OUT
01	45807	40	46	51				
02	45808	4 *	6 *	6 *				
03	46997	68	71	87				
04	46997DL	59	67	79				
05	46998	65	70	75				
06	SBLK97	73	76	79				
07	46997MS	67	72	72				
08	46997MSD	68	71	76				
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

GC LIMITS
 S1 (NBZ) = Nitrobenzene-d5 (23-120)
 S2 (FBP) = 2-Fluorobiphenyl (30-115)
 S3 (TPH) = Terphenyl-d14 (18-137)
 S4 (PHL) = Phenol-d5 (24-113)
 S5 (ZFP) = 2-Fluorophenol (25-121)
 S6 (TRP) = 2,4,6-Tribromophenol (19-122)

Column to be used to flag recovery values
 *Values outside of contract required GC limits
 D Surrogates diluted out

VERGAR INC.

Total : 100

Project : SOI

Case : X3412

Date : 11/07/1989 ANALYST : DVER

Labersari	Field	Tray	Tray	Net Wet	Tray	Net Dry	Tray	Tray	Moisture	Weight	Factor
Sample#	Sample#	Weight	Wet wt	Weight	Wet wt	Weight	Dry wt	Weight	Weight	Weight	Factor
		Sample	Sample	Sample	Sample	Sample	Sample	Sample			
88089	40223	0.99g	10.12g	9.13g	7.55g	6.34g			20.8%		1.44
88787	40225	0.99g	9.03g	8.04g	7.63g	6.84g			17.4%		1.21
88788	40226	0.99g	6.97g	5.98g	5.78g	4.77g			20.2%		1.25
88789	40227	0.98g	11.81g	13.83g	13.42g	9.44g			22.8%		1.15

AR301368

100176



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401
(301) 266-9180

DATE : March 14, 1990

SUBJECT: Organic Data Validation for the Standard Chlorine Site
Case 13230

FROM : Theresa A. Simpson
Region III ESAT DPO (3ES23)

TO : Bob Guarni
Regional Project Manager (3HW25)

THRU : Patricia J. Krantz, Chief
Quality Assurance Branch (3ES23)

Attached is the organic data review for the Standard Chlorine Site (Case 13230) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III ESD.

If you have any questions regarding this review, please call me.

Attachment

cc: Dave Basko VERSAR
Elaine Spiewak (3HW14) (w/o attachments)

TID File: 03900116 Task 1230

AR301369



2568A RIVA ROAD
SUITE 300
ANNAPOLIS, MD 21401
PHONE: 301-266-9887

DATE: March 13, 1990

SUBJECT: ORGANIC DATA VALIDATION, RAS 13230
SITE: STANDARD CHLORINE

FROM: MAHBOOBH MECANIC *MM*
SR. INOR. DATA REVIEWER

DOUGLAS MCINNES *DJM*
SR. ORGANIC DATA REVIEWER

TO: THERESA A. SIMPSON
ESAT DEPUTY PROJECT OFFICER

THRU: RICHARD D. DRESSER *RD*
ESAT TEAM MANAGER

OVERVIEW

Case 13230 consisted of seven (7) water and five (5) soil samples for full organic analyses. Included in this case were two (2) trip blanks which were analyzed for volatiles only, one (1) equipment blank and one (1) field blank. The samples were analyzed as a Contract Laboratory Program (CLP) Routine Analytical Service (RAS).

SUMMARY

All samples were successfully analyzed for all target compounds with the exception of 2-butanone from the volatile analyses. All other instrument and method sensitivities were according to the Contract Laboratory Program (CLP) Routine Analytical Services (RAS) protocol.

MAJOR PROBLEM

- o The response factors (RF) for 2-butanone in the water and soil samples were less than 0.05 in the initial and/or continuing calibrations. The quantitation limits for 2-butanone are qualified "R" in the affected samples. (See Table 1 of Appendix F).

MINOR PROBLEMS

- o Several compounds failed precision criteria for the initial and/or continuing calibrations. Therefore, positive results are qualified "J" and quantitation limits are qualified "UJ" in the affected samples. (See Table I of Appendix F).

AR301370

- o The volatile analyses of all soil samples were performed ten (10) to eleven (11) days from the date of sample collection. Although no technical holding time has been established for soil samples, the technical holding time for volatile aromatics in water samples of seven (7) days has been exceeded by three (3) to four (4) days. The quantitation limits and positive results for aromatic volatiles are qualified "UL" and "L" respectively, excluding results which have been qualified "J" which supercedes the "L" qualifier.
- o The semivolatile extractions of all soil samples were performed eight (8) to nine (9) days from the date of sample collection. Although no technical extraction holding time has been established for soil samples, the extraction holding time of seven (7) days for water samples has been exceeded by one (1) to two (2) days. The quantitation limits and positive results are qualified "UJ" and "J" respectively, excluding results which have been qualified "B" due to blank contamination.

NOTES:

- o Sample CZ420 was run as medium level soil for full organic analysis. The dilution factors given on the data summary forms have been changed to reflect this action. As a result, the dilution factors on the data summary forms do not match those given on Forms I's by the laboratory.
- o The maximum concentrations of all compounds found in the method and field blanks are listed below. Medium level blank concentrations are converted to low level for comparison. All samples with concentrations of common laboratory contaminants less than ten times (10X), and concentrations of non-common laboratory contaminants less than five times (5X) the blank level are qualified "B" on the data summary forms. (See Appendix F).

<u>Compound</u>	<u>Concentration</u>	
	<u>(ug/L)</u>	<u>(ug/Kg)</u>
Acetone *	9 J	
1,1,2,2-Tetrachloroethane		0.51 J
Chlorobenzene		0.57 J
Bis(2-ethylhexyl)phthalate *	4 J	

* Common laboratory contaminant

- o The volatile analysis of sample CZ420 was performed at two (2) different dilutions to correct for one (1) compound which exceeded the linear calibration range. The reported results for this sample on the data summary forms are from both analyses.
- o The volatile analysis of sample CZ428 and the pesticide/PCB analysis of sample CZ419 have elevated CRQL's due to the reduced sample size used by the laboratory.
- o Samples CZ425, CZ426 and CZ420 were used for the soil MS/MSD analyses. The results for precision estimates for non-spiked compounds found in the sample and MS/MSD analyses are as follows:

Sample and MS/MSD Non-Spiked Compounds

<u>Compound</u>	<u>Concentration (ug/Kg)</u>			<u>%RSD</u>
	<u>CZ425</u>	<u>CZ425MS</u>	<u>CZ425MSD</u>	
Methylene chloride		7 J	7 J	0+
2-butanone	16 J	ND	ND	IN
Chlorobenzene	180 J	ND	ND	IN

Sample and MS/MSD Non-Spiked Compounds

<u>Compound</u>	<u>Concentration (ug/Kg)</u>			<u>%RSD</u>
	<u>CZ420</u>	<u>CZ420MS</u>	<u>CZ420MSD</u>	
1,3-Dichlorobenzene	94000 J	97000 J	110000 J	8.5
1,2-Dichlorobenzene	170000 J	190000 J	230000 J	16

Sample and MS/MSD Non-Spiked Compounds

<u>Compound</u>	<u>Concentration (ug/Kg)</u>			<u>%RSD</u>
	<u>CZ426</u>	<u>CZ426MS</u>	<u>CZ426MSD</u>	
Bis(2-chloroethoxy)-methane	ND	ND	210 J	IN
Fluoranthene	130 J	110 J	110 J	9.9

%RSD = Percent Relative Standard Deviation
 + = Value is Relative Percent Difference
 ND = Not Detected
 IN = Indeterminate

AR301372

- o The reported Tentatively Identified Compounds (TIC's) of Appendix D have been reviewed and corrected during data validation. Compounds identified as blank contaminants or suspected aldol condensation products have been crossed off the TIC Form I's.

All data for Case 13230 were reviewed in accordance with the Functional Guidelines for Evaluating Organic Analyses with Modifications for Use within Region III. The text of this report addresses only those problems affecting usability.

ATTACHMENTS

- 1) Appendix A - Glossary of Data Qualifiers
- 2) Appendix B - Data Summary. These include:
 - (a) All positive results for target compounds with qualifier codes where applicable.
 - (b) All unusable detection limits (qualified "R").
- 3) Appendix C - Results as Reported by the Laboratory for All Target Compounds
- 4) Appendix D - Reviewed and Corrected Tentatively Identified Compounds
- 5) Appendix E - DPO Report for Contractual Compliance
- 6) Appendix F - Support Documentation

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Appendix A
Glossary of Data Qualifiers

AR301374



GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

CODES RELATING TO IDENTIFICATION

(confidence concerning presence or absence of compounds)

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

NO CODE = Confirmed identification.

B = Not detected substantially above the level reported in laboratory or field blanks.

R = Unreliable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.

N = Tentative identification. Consider present. Special methods may be needed to confirm its presence or absence in future sampling efforts.

CODES RELATED TO QUANTITATION

(can be used for both positive results and sample quantitation limits):

J = Analyte present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.

L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

UL = Not detected, quantitation limit is probably higher.

OTHER CODES

Q = No analytical result.

AR301375

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Appendix B
Data Summary Forms

AR301376

DATA SUMMARY FORM: VOLATILES

Site Name: Standard Chlorine

Case #: 13230 Sampling Date(s): 11/27-29/89

WATER SAMPLES (ug/L)

To calculate sample quantitation limit: (CROL * Dilution Factor)

CROL	COMPOUND	Sample No. Dilution Factor Location	CZ405 1.0	CZ406 1.0	CZ419 1.0	CZ422 5.0	CZ423 1.0	CZ424 1.0	CZ432 1.0
10	Chloromethane								
10	Bromomethane								
10	*Vinyl Chloride								
10	Chloroethane								
5	*Methylene Chloride		UJ				UJ		UJ
10	Acetone		UJ				B		UJ
5	Carbon Disulfide								
5	*1,1-Dichloroethene								
5	1,1-Dichloroethane								
5	*Total-1,2-Dichloroethene								
5	Chloroform								
5	*1,2-Dichloroethane								
10	*2-Butanone		R						R
5	*1,1,1-Trichloroethane								
5	*Carbon Tetrachloride								
10	Vinyl Acetate								
5	Bromodichloromethane		UJ						
		TB-A Trip Blank		TB-20 Trip Blank	BB-5 EP Blank	SWR-8	SWT-7	BB-10 Field Blank	SWO-18

CROL = C: ict Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

301377

AR301

DATA SUMMARY FORM: VOLATILES 2

Site Name: Standard chlorine

WATER SAMPLES

Case #: 13230 Sampling Date(s): 11/27-29/89

(ug/L)

To calculate sample quantitation, divide (CRCL * Dilution Factor)

CRCL	COMPOUND	Sample No. Dilution Factor Location	CE405 1.0 TB-19 Trip Blank	CE406 1.0 TB-20 Trip Blank	CE419 1.0 BB-5 EQ-Blank	CE422 5.0 SWR-8	CE423 1.0 SWT-9	CE424 1.0 BB-10 Field Blank	CE432 1.0 SWO-18
5	*1,2-Dichloropropane								
5	Cis-1,3-Dichloropropene								
5	Trichloroethene								
5	Dibromochloromethane								
5	1,1,2-Trichloroethane								
5	*Benzene				70				
5	Trans-1,3-Dichloropropene								
5	Bromoforn								
10	4-Methyl-2-pentanone								
10	2-Hexanone								
5	*Tetrachloroethene								
5	1,1,2,2-Tetrachloroethane								
5	*Toluene								
5	*Chlorobenzene								
5	*Ethylbenzene								
5	*Styrene								
5	*Total Xylenes					250			

CRCL = Col at Required Detection Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/80

DATA SUMMARY FORM: VOLATILES 1

Site Name: Standard Chlorine

SOIL SAMPLES
(ug/kg)

Case #: 13230 Sampling Date(s): 11/27-29/89

To calculate sample quantitation limits:
(CRDL * Dilution Factor) / ((100 - % moisture)/100)

CRDL	COMPOUND	Sample No. Dilution Factor % Moisture Location	C2425	C2426	C2427	C2428			
10	Chloromethane	SB-6	UJ	UJ	UJ	UJ			
10	Bromomethane		UJ	UJ	UJ	UJ			
10	Vinyl Chloride		UJ	UJ	UJ	UJ			
10	Chloroethane		UJ	UJ	UJ	UJ			
5	Methylene Chloride		UJ	UJ	UJ	UJ			
10	Acetone		UJ	UJ	UJ	UJ			
5	Carbon Disulfide		UJ	UJ	UJ	UJ			
5	1,1-Dichloroethene		UJ	UJ	UJ	UJ			
5	1,1-Dichloroethane		UJ	UJ	UJ	UJ			
5	Total 1,2-Dichloroethene		UJ	UJ	UJ	UJ			
5	Chloroform		UJ	UJ	UJ	UJ			
5	1,2-Dichloroethane		UJ	UJ	UJ	UJ			
10	2-Butanone		UJ	UJ	UJ	UJ			
5	1,1,1-Trichloroethane		UJ	UJ	UJ	UJ			
5	Carbon Tetrachloride		UJ	UJ	UJ	UJ			
10	Vinyl Acetate		UJ	UJ	UJ	UJ			
5	Bromodichloromethane		UJ	UJ	UJ	UJ			
		SB-6	56	37	88				
		SR-11							
		SR-12							
		SR-13							
		SR-14							
			1.0	1.0	1.0	5.0 +			
			51	55	64	53			

CRDL = Corrected Required Detection Limit SEE NARRATIVE FOR CODE DEFINITIONS

* 4.0g of sample by Medium level Protocol was diluted 2X, effective 250X dilution

in 100ml sample was diluted 5X, effective 625X dilution

+ only 1.0g of sample was analyzed, effective 5X dilution

DATA SUMMARY FORM: VOLATILES 2

Site Name: Standard chlorine

SOIL SAMPLES
(ug/Kg)

Case #: 13230 Sampling Date(s): 11/27-29/87

To calculate sample quantitation limit:
(C10L * Dilution Factor) / ((100 - % moisture)/100)

10L	Sample No. Dilution Factor % Moisture Location	C2420 250/625*	C2425 1.0 51	SR-11	SR-12	SR-13	SR-14				
5	1,2-Dichloropropane	60									
5	Cis-1,3-Dichloropropene										
5	Trichloroethene										
5	Dibromochloromethane										
5	1,1,2-Trichloroethane										
5	Benzene	440		UL	UL	UL	UL				
5	Trans-1,2-Dichloropropene										
5	Bromoform										
10	4 Methyl-2 pentanone										
10	2-Hexanone										
5	Tetrachloroethene										
5	1,1,2,2-Tetrachloroethane										
5	Toluene										
5	Chlorobenzene	19000		UL	UL	UL	UL				
5	Ethylbenzene										
5	Styrene										
5	Total Xylenes										

C10L = Contra required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

Site Name: Standard Chlorine

Case #: 13230

Sampling Date(s): 11/27-29/89

WATER SAMPLES
(ug/L)

To calculate sample quantification limit:
(CRL = Dilution Factor)

NO.	COMPOUND	Sample No. Dilution Factor Locallon	C2422 2.0 SWR-8	C2423 1.0 SWT-9	C2424 1.0 BB-10 Field Blank	C2432 1.0 SWD-11		
10	Phenol	C2419 1.0 BB-5 EQ Blank						
10	bis(2-Chloroethyl)ether							
10	2-Chlorophenol							
10	*1,3-Dichlorobenzene		35					
10	*1,4-Dichlorobenzene		330					
10	Benzyl Alcohol							
10	1,2-Dichlorobenzene		90					
10	2-Methylphenol							
10	bis(2-Chloroisopropyl)ether							
10	4-Methylphenol							
10	N-Nitroso-di-n propylamine							
10	Hexachloroethane							
10	Nitrobenzene							
10	Isophorone							
10	2-Nitrophenol							
10	2,4-Dimethylphenol							
50	Benzoic Acid							
10	bis(2-Chloroethoxy)methane							
10	2,4-Dichlorophenol							
10	1,2,4-Trichlorobenzene		160					
10	Naphthalene							
10	4-Chloroaniline							

CRL = Col 1 Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

AR301

Site Name: Standard Chlorine

Case #: 13230

Sampling Date(s): 11/27-29/89

DATA SUMMARY FORM: B N A S

WATER SAMPLES

(ug/L)

Page 4 of 12

2

To calculate sample quantitation factor:
(CITOL * Dilution Factor)

CITOL	COMPOUND	Sample No. Dilution Factor Location	WATER SAMPLES (ug/L)						
			C2420 1.0 BB-5 Eq-Blank	C2423 1.0 SWT-7	C2424 1.0 BB-10 Field Blank	C2430 1.0 SWR-18			
10	Hexachlorobutadiene								
10	4-Chloro-3-methylphenol								
10	2-Methylnaphthalene								
10	Hexachlorocyclopentadiene								
10	2,4,6-Trichlorophenol								
50	2,4,5-Trichlorophenol								
10	2-Chloronaphthalene								
50	2-Nitroaniline								
10	Dimethylphthalate								
10	Acenaphthylene								
10	2,6-Dinitrotoluene								
50	3-Nitroaniline								
10	Acenaphthene								
50	2,4-Dinitrophenol								
50	4-Nitrophenol								
10	Dibenzofuran								
10	2,4-Dinitrotoluene								
10	Diethylphthalate								
10	4-Chlorophenyl ether								
10	Fluorene								
50	4-Nitroaniline								
50	4,6-Dinitro-2-methylphenol								

CRDL = Cont Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

Site Name: Standard chlorine

Case #: 13230 Sampling Date(s): 11/27-29/89

WATER SAMPLES
(ug/L)

To calculate sample quantitation factor:
(CRQL * Dilution Factor)

CRQL	COMPOUND	Sample No.	Dilution Factor	Location	Sample No.			Sample No.		
					CE419	CE422	CE424	CE423	CE432	CE432
10	N-Nitrosodiphenylamine				1.0	1.0	1.0	1.0	1.0	
10	4-Bromophenyl-phenylether									
10	*Hexachlorobenzene									
50	*Pentachlorophenol									
10	Phenanthrene				BB-5					
10	Anthracene				EQ Blank					
10	Di-n-butylphthalate									
10	Fluoranthene									
10	Pyrene									
10	Butylbenzophthalate									
20	3,3-Dichlorobenzidine									
10	Benzo(e)anthracene									
10	Chrysene									
10	bis(2-Ethylhexyl)phthalate									
10	Di-n-octylphthalate				6	4	5	7	8	
10	Benzo(b)fluoranthene									
10	Benzo(k)fluoranthene									
10	Benzo(e)pyrene									
10	Indeno(1,2,3-cd)pyrene									
10	Dibenz(a,h)anthracene									
10	Benzo(a)anthracene									
10	Benzo(g,h,i)perylene									

CRQL = () act Required Detection Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

AR30

38

Site Name: Standard Chlorine

Case #: 13230 Sampling Date(s): 11/27-29/89

DATA SUMMARY FORM: B N A S

SOIL SAMPLES
(ug/Kg)

Page 9 of 12

1

To calculate sample quantitation limit:
(CRL * Dilution Factor) / ((100 - % moisture)/100)

CRL	COMPOUND	Sample No.	C2420	C2425	C2426	C2427	C2428			
		Dilution Factor	600*	10	2.0	2.0	2.0			
	% Moisture		60	51	55	64	53			
	Location	SB-6		SR-11	SR-12	SR-13	SR-14			
330	Phenol		UJ	UJ	UJ	UJ	UJ			
330	bis(2-Chloroethyl)ether		UJ	UJ	UJ	UJ	UJ			
330	2-Chlorophenol		UJ	UJ	UJ	UJ	UJ			
330	1,3-Dichlorobenzene	94000	J	9100	UJ	530	14000			
330	1,4-Dichlorobenzene	360000	J	62000	J	4100	160000			
330	Benzyl Alcohol		UJ	UJ	UJ	UJ	UJ			
330	1,2-Dichlorobenzene	170000	J	2200	UJ	170	4800			
330	2-Methylphenol		UJ	UJ		UJ	UJ			
330	bis(2-Chloroisopropyl)ether									
330	4-Methylphenol									
330	N-Nitroso-di-n-propylamine									
330	Hexachloroethane									
330	Nitrobenzene									
330	Isophorone									
330	2-Nitrophenol									
330	2,4-Dimethyl									
1500	Benzole f									
330	bis(2-Chloro									
330	2,4-Dichlo									
330	1,2,4-Tric	230000	J	37000		1100	83000			
330	Naphthal		UJ	UJ		UJ	UJ			
330	4-Chloro		UJ	UJ		UJ	UJ			

CRL = Compact Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

* Sample was analyzed by Medium level protocol and was diluted 10x, effective 600x dilution

revised 12/88

DATA SUMMARY FORM: B N A S 2

Site Name: Standard chlorine

SOIL SAMPLES
(ug/Kg)

Case #: 13230 Sampling Date(s): 11/27-29/89

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 * % moisture)/100)

CRQL	Sample No. Dilution Factor % Moisture Location	CE420	CE425	CE426	CE427	CE428
330	Hexachlorobutadiene	UJ	UJ	UJ	UJ	UJ
330	4-Chloro-3-methylphenol	UJ	UJ	UJ	UJ	UJ
330	2-Methylnaphthalene	UJ	UJ	UJ	UJ	UJ
330	Hexachlorocyclopentadiene	UJ	UJ	UJ	UJ	UJ
330	2,4,6-Trichlorophenol	UJ	UJ	UJ	UJ	UJ
1600	2,4,5-Trichlorophenol	UJ	UJ	UJ	UJ	UJ
330	2-Chloronaphthalene	UJ	UJ	UJ	UJ	UJ
1600	2-Nitroaniline	UJ	UJ	UJ	UJ	UJ
330	Dimethylphthalate	UJ	UJ	UJ	UJ	UJ
330	Acenaphthylene	UJ	UJ	UJ	UJ	UJ
330	2,6-Dinitrotoluene	UJ	UJ	UJ	UJ	UJ
1600	3-Nitroaniline	UJ	UJ	UJ	UJ	UJ
330	Acenaphthene	UJ	UJ	UJ	UJ	UJ
1600	2,4-Dinitrophenol	UJ	UJ	UJ	UJ	UJ
1600	4-Nitrophenol	UJ	UJ	UJ	UJ	UJ
330	Dibenzofuran	UJ	UJ	UJ	UJ	UJ
330	2,4-Dichlorophenol	UJ	UJ	UJ	UJ	UJ
330	Diethyl phthalate	UJ	UJ	UJ	UJ	UJ
330	4-Chlorophenyl phenylether	UJ	UJ	UJ	UJ	UJ
330	Fluorene	UJ	UJ	UJ	UJ	UJ
1600	4-Nitrophenol	UJ	UJ	UJ	UJ	UJ
1600	4,6-Dichlorophenol	UJ	UJ	UJ	UJ	UJ

CRQL = [blank] * Dilution Factor / ((100 * % moisture)/100)

SEE NARRATIVE FOR CODE DEFINITIONS

* Sample was analyzed by medium level protocol and was diluted 10x, effective 600x dilution

AR301300

Site Name: Standard Chlorine

Case #: 13230 Sampling Date(s): 11/27-29/91

DATA SUMMARY FORM: B N A S 3

Page 10 of 12

SOIL SAMPLES
(ug/Kg)

To calculate sample quantitation limit:
(CROL * Dilution Factor) / ((100 - % moisture)/100)

CRQL	COMPOUND	Sample No. Dilution Factor % Moisture Location	CE-420 600* 60 SB-6	CE-425 10 51 SR-11	CE-426 2.0 55 SR-12	CE-427 2.0 64 SR-13	CE-428 20 50 SR-14												
330	N-Nitrosodiphenylamine		WJ																
330	4-Bromophenyl phenylether																		
330	Hexachlorobenzene																		
1600	Pentachlorophenol																		
330	Phenanthrene																		
330	Anthracene																		
330	Di-n-butylphthalate																		
330	Fluoranthene																		
330	Pyrene																		
330	Butylbenzylphthalate																		
330	3,3-Dichlorobenzidine																		
330	Benzofluoranthene																		
330	Chrysene																		
330	bis(2-Ethylhexyl)phthalate																		
330	Di-n-octylphthalate																		
330	Benzofluoranthene																		
330	Benzofluoranthene																		
330	Benzofluoranthene																		
330	Indeno(1,2,3-cd)pyrene																		
330	Dibenzofluoranthene																		
330	Benzofluoranthene																		

CRQL = CROL * Dilution Factor / ((100 - % moisture)/100) SEE NARRATIVE FOR CODE DEFINITIONS.

* Sample was analyzed by medium level protocol and was diluted 10X, effective 600 x dilution

revised 12/88

DATA SUMMARY FORM: PESTICIDES AND PCBS

WATER SAMPLES

Site Name: Standard Chlorine
 Case #: 13230 Sampling Date(s): 11/27-29/89

To calculate sample quantitation limit:
 (CRQL * Dilution Factor)

CRQL	COMPOUND	Sample No. Dilution Factor Location	CZ419 1-1 # BB-5 EQ-Blank	CZ422 1.0 SWR-8	CZ423 1.0 SWT-9	CZ424 1.0 BB-10 Field Blank	CZ432 1.0 SWO-19
0.05	alpha-BHC						
0.05	beta-BHC						
0.05	delta-BHC						
0.05	*Gamma-BHC (Lindane)						
0.05	*Heptachlor						
0.05	Aldrin						
0.05	Heptachlor Epoxide						
0.05	Endosulfan I						
0.10	Dieldrin						
0.10	4,4'-DDE						
0.10	*Endrin						
0.10	Endosulfan II						
0.10	4,4'-DDD						
0.10	Endosulfan Sulfate						
0.10	4,4'-DDT						
0.5	*Methoxychlor						
0.10	Endrin ketone						
0.5	*Alpha-Chlordane						
0.5	*Gamma-Chlordane						
1.0	*Toxifenone						
0.5	*Aroclor 1016						
0.5	*Aroclor 1221						
0.5	*Aroclor 1232						
0.5	*Aroclor 1242						
0.5	*Aroclor 1248						
1.0	*Aroclor 1254						
1.0	*Aroclor 1260						

CRQL = Intract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS
 * 900 ml of sample was extracted, effective dilution factor of 1.1 X revised 12/88

DATA SUMMARY FORM: PESTICIDES AND PCB'S

Site Name: Standard chlorine

SOIL SAMPLES

Case #: 13230 Sampling Date(s): 11/27-29/89

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / (100 * % moisture/100)

CRQL	COMPOUND	Sample No. Dilution Factor % Moisture Location	C2420	C2425	C2426	C2427	C2428
8	alpha-BHC	SB-P	15*	2.0+	2.0+	2.0+	2.0+
8	beta-BHC		60	52	55	64	53
8	delta-BHC	SR-11	SR-P	1118	SR-12	SR-13	SR-14
8	Gamma-BHC (Lindane)						
8	Heptachlor	SR-11	SR-P	1118	SR-12	SR-13	SR-14
8	Aldrin						
8	Heptachlor Epoxide	SR-11	SR-P	1118	SR-12	SR-13	SR-14
8	Endosulfan I						
16	Dieldrin	SR-11	SR-P	1118	SR-12	SR-13	SR-14
16	4,4'-DDE						
16	Endrin	SR-11	SR-P	1118	SR-12	SR-13	SR-14
16	Endosulfan II						
16	4,4'-DDD	SR-11	SR-P	1118	SR-12	SR-13	SR-14
16	Endosulfan Sulfate						
16	4,4'-DDT	SR-11	SR-P	1118	SR-12	SR-13	SR-14
80	Methoxychlor						
16	Endrin ketone	SR-11	SR-P	1118	SR-12	SR-13	SR-14
80	Alpha-Chlor						
80	Gamma-Ch	SR-11	SR-P	1118	SR-12	SR-13	SR-14
160	Toxaphene						
80	Aroclor-10	SR-11	SR-P	1118	SR-12	SR-13	SR-14
80	Aroclor-12						
80	Aroclor-12	SR-11	SR-P	1118	SR-12	SR-13	SR-14
80	Aroclor-11						
80	Aroclor-1	SR-11	SR-P	1118	SR-12	SR-13	SR-14
160	Aroclor-1						
160	Aroclor-1260	SR-11	SR-P	1118	SR-12	SR-13	SR-14
160	Aroclor-1260						

SEE NARRATIVE FOR CODE DEFINITIONS

CRQL = Contract Required Quantitation Limit

CRQL = 1000

1000

Sample was analyzed by Medium Level Protocol effective 15x dilution

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Appendix C

Results as Reported by the Laboratory
for all Target Compounds

AR301389

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ405

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 85360

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not det. 100.

Date Analyzed: 11/30/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

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	5.	U
67-54-1	-----Acetone	10.	U
75-15-0	-----Carbon Disulfide	5.	U
75-35-4	-----1,1-Dichloroethene	5.	U
75-34-3	-----1,1-Dichloroethane	5.	U
540-59-0	-----1,2-Dichloroethene (total)	5.	U
67-56-3	-----Chloroform	5.	U
107-06-2	-----1,2-Dichloroethane	5.	U
78-93-3	-----2-Butanone	10.	U
71-55-6	-----1,1,1-Trichloroethane	5.	U
56-23-5	-----Carbon Tetrachloride	5.	U
108-05-4	-----Vinyl Acetate	10.	U
75-27-4	-----Bromodichloromethane	5.	U
78-87-5	-----1,2-Dichloropropane	5.	U
10061-01-5	-----cis-1,3-Dichloropropene	5.	U
79-01-6	-----Trichloroethene	5.	U
124-48-1	-----Dibromochloromethane	5.	U
79-00-5	-----1,1,2-Trichloroethane	5.	U
71-43-2	-----Benzene	5.	U
10061-02-6	-----trans-1,3-Dichloropropene	5.	U
75-25-2	-----Bromoform	5.	U
108-10-1	-----4-Methyl-2-Pentanone	10.	U
591-78-6	-----2-Hexanone	10.	U
127-18-4	-----Tetrachloroethene	5.	U
79-34-5	-----1,1,2,2-Tetrachloroethane	5.	U
108-88-3	-----Toluene	5.	U
108-90-7	-----Chlorobenzene	5.	U
100-41-4	-----Ethylbenzene	5.	U
100-42-5	-----Styrene	5.	U
1330-20-7	-----Xylene (total)	5.	U

FORM I VOA

00031 Rev

AR301390

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ406

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ406

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 85374

Level: (low/med) LOW

Date Received: 11/30/89

% Moisture: not dec. 100.

Date Analyzed: 12/ 4/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

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	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene		
1330-20-7	Xylene (total)		

FORM I VOA

00035 Rev.

AR301391

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

419 DFC
CZ405 11

Lab Name: ESE Contract: 68-W8-0008
 Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405
 Matrix: (soil/water) WATER Lab Sample ID:
 Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 89363
 Level: (low/med) LOW Date Received: 11/30/89
 % Moisture: not dec. 100. Date Analyzed: 11/30/89
 Column: (pack/cap) PACK Dilution Factor: 1.00

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

FORM I VOA

1/87 Rev

00039

AR301392

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ419

Lab Name: ESE Contract: 68-W8-0008
 Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405
 Matrix: (soil/water) WATER Lab Sample ID:
 Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22202
 Level: (low/med) LOW Date Received: 11/29/89
 % Moisture: not dec. 100. dec. _____ Date Extracted: 12/ 4/89
 Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/27/89
 GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	g
108-95-2	Phenol	10.	1U
111-44-4	bis(2-Chloroethyl)ether	10.	1U
95-57-8	2-Chlorophenol	10.	1U
541-73-1	1,3-Dichlorobenzene	10.	1U
106-46-7	1,4-Dichlorobenzene	10.	1U
100-51-6	Benzyl alcohol	10.	1U
95-50-1	1,2-Dichlorobenzene	10.	1U
95-48-7	2-Methylphenol	10.	1U
108-60-1	bis(2-Chloroisopropyl)ether	10.	1U
106-44-5	4-Methylphenol	10.	1U
621-64-7	N-Nitroso-di-n-propylamine	10.	1U
67-72-1	Hexachloroethane	10.	1U
98-95-3	Nitrobenzene	10.	1U
78-59-1	Isophorone	10.	1U
88-75-5	2-Nitrophenol	10.	1U
105-67-9	2,4-Dimethylphenol	10.	1U
65-85-0	Benzoic acid	50.	1U
111-91-1	bis(2-Chloroethoxy)methane	10.	1U
120-83-2	2,4-Dichlorophenol	10.	1U
120-82-1	1,2,4-Trichlorobenzene	10.	1U
91-20-3	Naphthalene	10.	1U
106-47-8	4-Chloroaniline	10.	1U
87-68-3	Hexachlorobutadiene	10.	1U
59-50-7	4-Chloro-3-methylphenol	10.	1U
91-57-6	2-Methylnaphthalene	10.	1U
77-47-4	Hexachlorocyclopentadiene	10.	1U
88-06-2	2,4,6-Trichlorophenol	10.	1U
95-95-4	2,4,5-Trichlorophenol	50.	1U
91-58-7	2-Chloronaphthalene	10.	1U
88-74-4	2-Nitroaniline	50.	1U
131-11-3	Dimethylphthalate	10.	1U
208-96-8	Acenaphthylene	10.	1U
606-20-2	2,6-Dinitrotoluene	10.	1U

AR301393

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ419

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 22202

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not dec. 100. dec. _____

Date Extracted: 12/ 4/89

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/27/89

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

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

99-09-2	3-Nitroaniline	50.	IU
83-32-9	Acenaphthene	10.	IU
51-28-5	2,4-Dinitrophenol	50.	IU
100-02-7	4-Nitrophenol	50.	IU
132-64-9	Dibenzofuran	10.	IU
121-14-2	2,4-Dinitrotoluene	10.	IU
84-66-2	Diethylphthalate	10.	IU
7005-72-3	4-Chlorophenyl-phenylether	10.	IU
86-73-7	Fluorene	10.	IU
100-01-6	4-Nitroaniline	50.	IU
534-52-1	4,6-Dinitro-2-methylphenol	50.	IU
86-30-6	N-Nitrosodiphenylamine (1)	10.	IU
101-55-3	4-Bromophenyl-phenylether	10.	IU
118-74-1	Hexachlorobenzene	10.	IU
87-86-5	Pentachlorophenol	50.	IU
85-01-8	Phenanthrene	10.	IU
120-12-7	Anthracene	10.	IU
84-74-2	Di-n-butylphthalate	10.	IU
206-44-0	Fluoranthene	10.	IU
129-00-0	Pyrene	10.	IU
85-68-7	Butylbenzylphthalate	10.	IU
91-94-1	3,3'-Dichlorobenzidine	20.	IU
56-55-3	Benzo(a)anthracene	10.	IU
218-01-9	Chrysene	10.	IU
117-81-7	bis(2-Ethylhexyl)phthalate	6.	BJ
117-84-0	Di-n-octylphthalate	10.	IU
205-99-2	Benzo(b)fluoranthene	10.	IU
207-08-9	Benzo(k)fluoranthene	10.	IU
50-32-8	Benzo(a)pyrene		
193-39-5	Indeno(1,2,3-cd)pyrene		
53-70-3	Dibenzo(a,h)anthracene	10.	IU
191-24-2	Benzo(g,h,i)perylene	10.	IU

(1) - Cannot be separated from diphenylamine

AR301394

FORM I SV-2

1/87 Rev.

00000

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CZ419

Lab Name: ESE Contract: 68-W8-0008
 Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405
 Matrix: (soil/water) WATER Lab Sample ID:
 Sample wt/vol: 900. (g/mL)ML Lab File ID: ACZWS15
 Level: (low/med) LOW Date Received: 11/29/89
 % Moisture: not dec.100. dec. 0. Date Extracted: 12/ 4/89
 Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/26/89
 SPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

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

CAS NO.	COMPOUND	UG/L	Q
319-84-6	Alpha-BHC	.056	U
319-85-7	Beta-BHC	.056	U
319-86-8	Delta-BHC	.056	U
58-89-9	Gamma-BHC	.056	U
76-44-8	Heptachlor	.056	U
309-00-2	Aldrin	.056	U
1024-57-3	Heptachlor Epoxide	.056	U
959-98-8	Endosulfan I	.056	U
60-57-1	Dieldrin	.11	U
72-55-9	4,4'-DDE	.11	U
72-20-8	Endrin	.11	U
33213-65-9	Endosulfan II	.11	U
72-54-8	4,4'-DDD	.11	U
1031-07-8	Endosulfan Sulfate	.11	U
50-29-3	4,4'-DDT	.11	U
72-43-5	Methoxychlor	.56	U
53494-70-5	Endrin Ketone	.11	U
5103-71-9	Alpha Chlordane	.56	U
5103-74-2	Gamma Chlordane	.56	U
8001-35-2	Toxaphene	1.1	U
12674-11-2	Aroclor-1016	.56	U
11104-28-2	Aroclor-1221	.56	U
11141-16-5	Aroclor-1232	.56	U
53469-21-9	Aroclor-1242	.56	U
12672-29-6	Aroclor-1248	.56	U
11097-69-1	Aroclor-1254	1.1	U
11096-82-5	Aroclor-1260	1.1	U

FORM I PEST

00458

AR301395

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ420

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) SOIL

Lab Sample ID:

Sample wt/vol: 4.000 (g/mL) G

Lab File ID: 85400

Level: (low/med) MED

Date Received: 11/30/89

% Moisture: not dec. 60.

Date Analyzed: 12/ 9/89

Column: (pack/cap) PACK

Dilution Factor: ~~100.00~~ ^{2.00} / 125

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
74-87-3	-----Chloromethane	6300.	U
74-83-9	-----Bromomethane	6300.	U
75-01-4	-----Vinyl Chloride	6300.	U
75-00-3	-----Chloroethane	3100.	U
75-09-2	-----Methylene Chloride	6300.	U
67-64-1	-----Acetone	3100.	U
75-15-0	-----Carbon Disulfide	3100.	U
75-35-4	-----1,1-Dichloroethene	3100.	U
75-34-3	-----1,1-Dichloroethane	3100.	U
540-59-0	-----1,2-Dichloroethene (total)	3100.	U
67-66-3	-----Chloroform	3100.	U
107-06-2	-----1,2-Dichloroethane	6300.	U
78-93-3	-----2-Butanone	3100.	U
71-55-6	-----1,1,1-Trichloroethane	3100.	U
56-23-5	-----Carbon Tetrachloride	6300.	U
108-05-4	-----Vinyl Acetate	3100.	U
75-27-4	-----Bromodichloromethane	3100.	U
78-87-5	-----1,2-Dichloropropane	3100.	U
10061-01-5	-----cis-1,3-Dichloropropene	3100.	U
79-01-6	-----Trichloroethene	3100.	U
124-48-1	-----Dibromochloromethane	3100.	U
79-00-5	-----1,1,2-Trichloroethane	440.	J
71-43-2	-----Benzene	3100.	U
10061-02-6	-----trans-1,3-Dichloropropene	3100.	U
75-25-2	-----Bromoform	6300.	U
108-10-1	-----4-Methyl-2-Pentanone	6300.	U
591-78-6	-----2-Hexanone	3100.	U
127-18-4	-----Tetrachloroethene	3100.	U
79-34-5	-----1,1,2,2-Tetrachloroethane	3100.	U
108-88-3	-----Toluene	220000.	E
108-90-7	-----Chlorobenzene	3100.	U
100-41-4	-----Ethylbenzene	3100.	U
100-42-5	-----Styrene		J
1330-20-7	-----Xylene (total)		

FORM 1 VOA

1/87 Re

00043

AR301396

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ESE

Contract: 68-WB-0006

CZ420 DL

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) SOIL

Lab Sample ID:

Sample wt/vol: 4.000 (g/mL) G

Lab File ID: 85411

Level: (low/med) MED

Date Received: 11/30/89

% Moisture: not dec. 60.

Date Analyzed: 12/10/89

Column: (pack/cap) PACK

Dilution Factor:

~~250.00~~ ^{5.00} _{1/25}

CAS NO.	COMPCUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	-----Chloromethane	16000.	U
74-83-9	-----Bromomethane	16000.	U
75-01-4	-----Vinyl Chloride	16000.	U
75-00-3	-----Chloroethane	16000.	U
75-09-2	-----Methylene Chloride	7800.	U
67-64-1	-----Acetone	16000.	U
75-15-0	-----Carbon Disulfide	7800.	U
75-35-4	-----1,1-Dichloroethene	7800.	U
75-34-3	-----1,1-Dichloroethane	7800.	U
540-59-0	-----1,2-Dichloroethene (total)	7800.	U
67-66-3	-----Chloroform	7800.	U
107-06-2	-----1,2-Dichloroethane	7800.	U
78-93-3	-----2-Butanone	16000.	U
71-55-6	-----1,1,1-Trichloroethane	7800.	U
56-23-5	-----Carbon Tetrachloride	7800.	U
108-05-4	-----Vinyl Acetate	16000.	U
75-27-4	-----Bromodichloromethane	7800.	U
78-87-5	-----1,2-Dichloropropane	7800.	U
10061-01-5	-----cis-1,3-Dichloropropene	7800.	U
79-01-5	-----Trichloroethene	7800.	U
124-48-1	-----Dibromochloromethane	7800.	U
79-00-5	-----1,1,2-Trichloroethane	7800.	U
71-43-2	-----Benzene	320.	J D
10061-02-6	-----trans-1,3-Dichloropropene	7800.	U
75-25-2	-----Bromoform	7800.	U
108-10-1	-----4-Methyl-2-Pentanone	16000.	U
591-78-6	-----2-Hexanone	16000.	U
127-18-4	-----Tetrachloroethene	7800.	U
79-34-5	-----1,1,2,2-Tetrachloroethane	7800.	U
108-88-3	-----Toluene	7800.	U
108-90-7	-----Chlorobenzene	190000.	B D
100-41-4	-----Ethylbenzene	7800.	U
100-42-5	-----Styrene	7800.	U
1330-20-7	-----Xylene (total)	7800.	U

FORM I VOA

1/87 Re

00049

AR301397

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ420

Lab Name: ESE

Contract: 68-W8-0002

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) SOIL

Lab Sample ID:

Sample wt/vol: 1.000 (g/mL) G

Lab File ID: 22225

Level: (low/med) MED

Date Received: 11/30/89

% Moisture: not dec. 60. dec. _____

Date Extracted: 12/ 8/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/28/89

GPC Cleanup: (Y/N) N

pH: 6.2

Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

108-95-2	Phenol	500000.	U
111-44-4	bis(2-Chloroethyl)ether	500000.	U
95-57-8	2-Chlorophenol	500000.	U
541-73-1	1,3-Dichlorobenzene	94000.	J
106-46-7	1,4-Dichlorobenzene	3600000.	
100-51-5	Benzyl alcohol	500000.	U
95-50-1	1,2-Dichlorobenzene	170000.	J
95-48-7	2-Methylphenol	500000.	U
108-60-1	bis(2-Chloroisopropyl)ether	500000.	U
108-44-5	4-Methylphenol	500000.	U
621-64-7	N-Nitroso-di-n-propylamine	500000.	U
67-72-1	Hexachloroethane	500000.	U
98-95-3	Nitrobenzene	500000.	U
78-59-1	Isophorone	500000.	U
88-75-5	2-Nitrophenol	500000.	U
105-67-9	2,4-Dimethylphenol	500000.	U
65-85-0	Benzoic acid	2400000.	U
111-91-1	bis(2-Chloroethoxy)methane	500000.	U
120-93-2	2,4-Dichlorophenol	500000.	U
120-82-1	1,2,4-Trichlorobenzene	2300000.	
91-20-3	Naphthalene	500000.	U
106-47-8	4-Chloroaniline	500000.	U
87-68-3	Hexachlorobutadiene	500000.	U
59-50-7	4-Chloro-3-methylphenol	500000.	U
91-57-6	2-Methylnaphthalene	500000.	U
77-47-4	Hexachlorocyclopentadiene	500000.	U
88-06-2	2,4,6-Trichlorophenol	500000.	U
95-95-4	2,4,5-Trichlorophenol	2400000.	U
91-58-7	2-Chloronaphthalene	500000.	U
88-74-4	2-Nitroaniline	2400000.	U
131-11-3	Dimethylphthalate		
208-96-8	Acenaphthylene	500000.	U
606-20-2	2,6-Dinitrotoluene	500000.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ420

Lab Name: ESE Contract: 68-W8-0008

Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405

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

Sample wt/vol: 1.000 (g/mL) G Lab File ID: 22225

Level: (low/med) MED Date Received: 11/30/89

% Moisture: not dec. 50. dec. _____ Date Extracted: 12/ 8/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/28/89

GPC Cleanup: (Y/N) N pH: 6.2 Dilution Factor: 10.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	G
99-09-2	3-Nitroaniline	2400000.	IU
83-32-9	Acenaphthene	500000.	IU
51-29-5	2,4-Dinitrophenol	2400000.	IU
100-02-7	4-Nitrophenol	2400000.	IU
132-64-9	Dibenzofuran	500000.	IU
121-14-2	2,4-Dinitrotoluene	500000.	IU
84-66-2	Diethylphthalate	500000.	IU
7005-72-3	4-Chlorophenyl-phenylether	500000.	IU
86-73-7	Fluorene	500000.	IU
100-01-6	4-Nitroaniline	2400000.	IU
534-52-1	4,6-Dinitro-2-methylphenol	2400000.	IU
96-30-6	N-Nitrosodiphenylamine (1)	500000.	IU
101-55-3	4-Bromophenyl-phenylether	500000.	IU
119-74-1	Hexachlorobenzene	500000.	IU
87-86-5	Pentachlorophenol	2400000.	IU
85-01-8	Phenanthrene	500000.	IU
120-12-7	Anthracene	500000.	IU
84-74-2	Di-n-butylphthalate	500000.	IU
206-44-0	Fluoranthene	500000.	IU
129-00-0	Pyrene	500000.	IU
95-68-7	Butylbenzylphthalate	500000.	IU
91-94-1	3,3'-Dichlorobenzidine	1000000.	IU
56-55-3	Benzo(a)anthracene	500000.	IU
219-01-9	Chrysene	500000.	IU
117-81-7	bis(2-Ethylhexyl)phthalate	500000.	IU
117-84-0	Di-n-octylphthalate	500000.	IU
205-99-2	Benzo(b)fluoranthene	500000.	IU
207-08-9	Benzo(k)fluoranthene	500000.	IU
50-32-8	Benzo(a)pyrene	500000.	IU
193-39-5	Indeno(1,2,3-cd)pyrene	500000.	IU
53-70-3	Dibenzo(a,h)anthracene	500000.	IU
191-24-2	Benzo(g,h,i)perylene	500000.	IU

(1) - Cannot be separated from diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ420

Contract: 68-W8-0008

SDG No.: CZ405

Lab Name: ESE

Lab Code: ESE

Case No.: 13230

SAS No.:

Lab Sample ID:

Matrix: (soil/water) SOIL

Lab File ID: ACZWS33

Sample wt/vol: 1. (g/mL) G.

Date Received: 11/30/89

Level: (low/med) MED

Date Extracted: 12/ 8/89

% Moisture: not dec. 60. dec. 0.

Date Analyzed: 12/27/89

Extraction: (SepF/Cont/Sonc) SONC

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6.2

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

Q

CAS NO.

COMPOUND

319-84-6	Alpha-BHC	280.	U
319-85-7	Beta-BHC	280.	U
319-86-8	Delta-BHC	280.	U
58-89-9	Gamma-BHC	280.	U
76-44-8	Heptachlor	280.	U
309-00-2	Aldrin	280.	U
1024-57-3	Heptachlor Epoxide	280.	U
959-98-8	Endosulfan I	560.	U
60-57-1	Dieldrin	560.	U
72-55-9	4,4'-DDE	560.	U
72-20-8	Endrin	560.	U
33213-65-9	Endosulfan II	560.	U
72-54-8	4,4'-DDD	560.	U
1031-07-8	Endosulfan Sulfate	560.	U
50-29-3	4,4'-DDT	2800.	U
72-43-5	Methoxychlor	560.	U
53494-70-5	Endrin Ketone	2800.	U
5103-71-9	Alpha Chlordane	2800.	U
5103-74-2	Gamma Chlordane	5600.	U
8001-35-2	Toxaphene	2800.	U
12674-11-2	Aroclor-1016	2800.	U
11104-28-2	Aroclor-1221	2800.	U
11141-16-5	Aroclor-1232	2800.	U
53469-21-9	Aroclor-1242	2800.	U
12672-29-6	Aroclor-1248	5600.	U
11097-69-1	Aroclor-1254	5600.	U
11096-82-5	Aroclor-1260		

FORM I-PEST

170. Rev.

00460

AR301400

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ422

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 85372

Level: (low/med) LOW

Date Received: 11/30/89

% Moisture: not dec. 100.

Date Analyzed: 12/ 4/89

Column: (pack/cas) PACK

Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	-----Chloromethane	50.	U
74-83-3	-----Bromomethane	50.	U
75-01-4	-----Vinyl Chloride	50.	U
75-00-3	-----Chloroethane	50.	U
75-09-2	-----Methylene Chloride	25.	U
67-64-1	-----Acetone	50.	U
75-15-0	-----Carbon Disulfide	25.	U
75-35-4	-----1,1-Dichloroethene	25.	U
75-34-3	-----1,1-Dichloroethane	25.	U
540-59-0	-----1,2-Dichloroethene (total)	25.	U
67-66-3	-----Chloroform	25.	U
107-06-2	-----1,2-Dichloroethane	25.	U
78-93-3	-----2-Butanone	50.	U
71-55-6	-----1,1,1-Trichloroethane	25.	U
56-23-5	-----Carbon Tetrachloride	25.	U
108-05-4	-----Vinyl Acetate	50.	U
75-27-4	-----Bromodichloromethane	25.	U
78-87-5	-----1,2-Dichloropropane	25.	U
10061-01-5	-----cis-1,3-Dichloropropene	25.	U
79-01-6	-----Trichloroethene	25.	U
124-48-1	-----Dibromochloromethane	25.	U
79-00-5	-----1,1,2-Trichloroethane	25.	U
71-43-2	-----Benzene	70.	
10061-02-6	-----trans-1,3-Dichloropropene	25.	U
75-25-2	-----Bromoform	25.	U
108-10-1	-----4-Methyl-2-Pentanone	50.	U
591-78-6	-----2-Hexanone	50.	U
127-18-4	-----Tetrachloroethene	25.	U
79-34-5	-----1,1,2,2-Tetrachloroethane	25.	U
108-88-3	-----Toluene	25.	U
108-90-7	-----Chlorobenzene	250.	
100-41-4	-----Ethylbenzene	25.	U
100-42-5	-----Styrene	25.	U
1330-20-7	-----Xylene (total)	25.	U

FORM I VOA

00055
1/87 Rev.

AR301401

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ422

Lab Name: ESE

Contract: 68-WB-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 22208

Level: (low/med) LOW

Date Received: 11/30/89

% Moisture: not dec. 100. dec. _____

Date Extracted: 12/ 4/89

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/27/89

GPC Cleanup: (Y/N) N

pH: 7.0

Dilution Factor:

2.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

108-95-2	Phenol	20.	U
111-44-4	bis(2-Chloroethyl)ether	20.	U
95-57-9	2-Chlorophenol	20.	U
541-73-1	1,3-Dichlorobenzene	35.	
106-46-7	1,4-Dichlorobenzene	330.	
100-51-6	Benzyl alcohol	20.	U
95-50-1	1,2-Dichlorobenzene	90.	
95-48-7	2-Methylphenol	20.	U
108-60-1	bis(2-Chloroisopropyl)ether	20.	U
106-44-5	4-Methylphenol	20.	U
621-34-7	N-Nitroso-di-n-propylamine	20.	U
67-72-1	Hexachloroethane	20.	U
98-95-3	Nitrobenzene	20.	U
78-59-1	Isophorone	20.	U
68-75-5	2-Nitrophenol	20.	U
105-67-9	2,4-Dimethylphenol	20.	U
65-85-0	Benzoic acid	100.	U
111-91-1	bis(2-Chloroethoxy)methane	20.	U
120-83-2	2,4-Dichlorophenol	20.	U
120-82-1	1,2,4-Trichlorobenzene	160.	
91-20-3	Naphthalene	20.	U
106-47-9	4-Chloroaniline	20.	U
87-69-3	Hexachlorobutadiene	20.	U
59-50-7	4-Chloro-3-methylphenol	20.	U
91-57-6	2-Methylnaphthalene	20.	U
77-47-4	Hexachlorocyclopentadiene	20.	U
88-06-2	2,4,6-Trichlorophenol	20.	U
95-95-4	2,4,5-Trichlorophenol	100.	U
91-58-7	2-Chloronaphthalene	20.	U
88-74-4	2-Nitroaniline		
131-11-3	Dimethylphthalate	20.	U
208-96-8	Acenaphthylene	20.	U
606-20-2	2,6-Dinitrotoluene	20.	U

AR301402

FORM I SV-1

1/87 Rev.
00228

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ422

Lab Name: ESE Contract: 68-W8-0008

Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405

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

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22208

Level: (low/med) LOW Date Received: 11/30/89

% Moisture: not dec. 100. dec. _____ Date Extracted: 12/ 4/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/27/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 2.00

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

CAS NO.	COMPOUND	UG/L	Q
---------	----------	------	---

99-09-2	3-Nitroaniline	100.	IU
83-32-9	Acanaphthene	20.	IU
51-28-5	2,4-Dinitrophenol	100.	IU
100-02-7	4-Nitrophenol	100.	IU
132-64-9	Dibenzofuran	20.	IU
121-14-2	2,4-Dinitrotoluene	20.	IU
84-55-2	Diethylphthalate	20.	IU
7005-72-3	4-Chlorophenyl-phenylether	20.	IU
86-73-7	Fluorene	20.	IU
100-01-6	4-Nitroaniline	100.	IU
534-52-1	4,6-Dinitro-2-methylphenol	100.	IU
86-30-6	N-Nitrosodiphenylamine (1)	20.	IU
101-55-3	4-Bromophenyl-phenylether	20.	IU
118-74-1	Hexachlorobenzene	20.	IU
87-86-5	Pentachlorophenol	100.	IU
85-01-8	Phenanthrene	20.	IU
120-12-7	Anthracene	20.	IU
84-74-2	Di-n-butylphthalate	20.	IU
206-44-0	Fluoranthene	20.	IU
129-00-0	Pyrene	20.	IU
85-69-7	Butylbenzylphthalate	20.	IU
91-94-1	3,3'-Dichlorobenzidine	40.	IU
56-55-3	Benzo(a)anthracene	20.	IU
218-01-9	Chrysene	20.	IU
117-81-7	bis(2-Ethylhexyl)phthalate	4.	BJ
117-84-0	Di-n-octylphthalate	20.	IU
205-99-2	Benzo(b)fluoranthene	20.	IU
207-08-9	Benzo(k)fluoranthene	20.	IU
50-32-8	Benzo(a)pyrene	20.	IU
193-39-5	Indeno(1,2,3-cd)pyrene	20.	IU
53-70-3	Dibenzo(a,h)anthracene	20.	IU
191-24-2	Benzo(g,h,i)perylene	20.	IU

(1) - Cannot be separated from diphenylamine

FORM I SV-2

1/87 Rev

AR301403

00229

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ422

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 1000. (g/mL)ML

Lab File ID: ACZWS17

Level: (low/med) LOW

Date Received: 11/30/89

Z Moisture: not dec.100. dec. 0.

Date Extracted: 12/ 4/89

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/27/89

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

Dilution Factor: 1.00

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

319-84-5	Alpha-BHC	.050	U
319-85-7	Beta-BHC	.050	U
319-86-8	Delta-BHC	.050	U
58-89-9	Gamma-BHC	.050	U
76-44-8	Heptachlor	.050	U
309-00-2	Aldrin	.050	U
1024-57-3	Heptachlor Epoxide	.050	U
959-98-8	Endosulfan I	.050	U
60-57-1	Dieldrin	.100	U
72-55-9	4,4'-DDE	.100	U
72-20-8	Endrin	.100	U
33213-65-9	Endosulfan II	.100	U
72-54-8	4,4'-DDD	.100	U
1031-07-8	Endosulfan Sulfate	.100	U
50-29-3	4,4'-DDT	.100	U
72-43-5	Methoxychlor	.50	U
53494-70-5	Endrin Ketone	.100	U
5103-71-9	Alpha Chlordane	.50	U
5103-74-2	Gamma Chlordane	.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	.50	U
11104-28-2	Aroclor-1221	.50	U
11141-16-5	Aroclor-1232	.50	U
53469-21-9	Aroclor-1242	.50	U
12672-29-6	Aroclor-1248	.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST

1/87 Rev

AR301404

00463

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ423

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 85359

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not dec. 100.

Date Analyzed: 11/30/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

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	5.	U
67-64-1	-----Acetone	4.	BJ
75-15-0	-----Carbon Disulfide	5.	U
75-35-4	-----1,1-Dichloroethene	5.	U
75-34-3	-----1,1-Dichloroethane	5.	U
540-59-0	-----1,2-Dichloroethene (total)	5.	U
67-66-3	-----Chloroform	5.	U
107-06-2	-----1,2-Dichloroethane	5.	U
78-93-3	-----2-Butanone	10.	U
71-55-6	-----1,1,1-Trichloroethane	5.	U
56-23-5	-----Carbon Tetrachloride	5.	U
108-05-4	-----Vinyl Acetate	10.	U
75-27-4	-----Bromodichloromethane	5.	U
78-87-5	-----1,2-Dichloropropane	5.	U
10061-01-5	-----cis-1,3-Dichloropropene	5.	U
79-01-6	-----Trichloroethene	5.	U
124-48-1	-----Dibromochloromethane	5.	U
79-00-5	-----1,1,2-Trichloroethane	5.	U
71-43-2	-----Benzene	5.	U
10061-02-6	-----trans-1,3-Dichloropropene	5.	U
75-25-2	-----Bromoform	5.	U
108-10-1	-----4-Methyl-2-Pentanone	10.	U
591-78-6	-----2-Hexanone	10.	U
127-18-4	-----Tetrachloroethene	5.	U
79-34-5	-----1,1,2,2-Tetrachloroethane	5.	U
108-88-3	-----Toluene	5.	U
108-90-7	-----Chlorobenzene	5.	U
100-41-4	-----Ethylbenzene	5.	U
100-42-5	-----Styrene	5.	U
1330-20-7	-----Xylene (total)	5.	U

FORM I VOA

11/30/89

AR301405

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ423

Lab Name: ESE Contract: 68-W8-0008
 Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405
 Matrix: (soil/water) WATER Lab Sample ID:
 Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22203
 Level: (low/med) LOW Date Received: 11/29/89
 % Moisture: not dec. 100. dec. _____ Date Extracted: 12/ 4/89
 Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/27/89
 GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

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

CAS NO. COMPOUND UG/L

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
105-46-7	1,4-Dichlorobenzene	10.	U
100-51-6	Benzyl alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	bis(2-Chloroisopropyl)ether	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
65-85-0	Benzoic acid	50.	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	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	10.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ423

Lab Name: ESE Contract: 68-W8-0008
 Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405
 Matrix: (soil/water) WATER Lab Sample ID:
 Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22203
 Level: (low/med) LOW Date Received: 11/29/89
 % Moisture: not dec. 100. dec. _____ Date Extracted: 12/ 4/89
 Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/27/89
 GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

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

CAS NO.	COMPOUND	UG/L	Q
---------	----------	------	---

99-09-2	3-Nitroaniline	50.	IU
83-32-9	Acenaphthene	10.	IU
51-28-5	2,4-Dinitrophenol	50.	IU
100-02-7	4-Nitrophenol	50.	IU
132-64-9	Dibenzofuran	10.	IU
121-14-2	2,4-Dinitrotoluene	10.	IU
84-66-2	Diethylphthalate	10.	IU
7005-72-3	4-Chlorophenyl-phenylether	10.	IU
86-73-7	Fluorene	10.	IU
100-01-6	4-Nitroaniline	50.	IU
534-52-1	4,6-Dinitro-2-methylphenol	50.	IU
66-30-6	N-Nitrosodiphenylamine (1)	10.	IU
101-55-3	4-Bromophenyl-phenylether	10.	IU
118-74-1	Hexachlorobenzene	10.	IU
87-86-5	Pentachlorophenol	50.	IU
85-01-8	Phenanthrene	10.	IU
120-12-7	Anthracene	10.	IU
84-74-2	Di-n-butylphthalate	10.	IU
206-44-0	Fluoranthene	10.	IU
129-00-0	Pyrene	10.	IU
85-68-7	Butylbenzylphthalate	10.	IU
91-94-1	2,3'-Dichlorobenzidine	20.	IU
56-55-3	Benzo(a)anthracene	10.	IU
218-01-9	Chrysene	10.	IU
117-81-7	bis(2-Ethylhexyl)phthalate	4.	IBJ
117-84-0	Di-n-octylphthalate	10.	IU
205-99-2	Benzo(b)fluoranthene	10.	IU
207-08-9	Benzo(k)fluoranthene	10.	IU
50-32-8	Benzo(a)pyrene	10.	IU
193-39-5	Indeno(1,2,3-cd)pyrene	10	"
53-70-3	Dibenzo(a,h)anthracene	10	"
191-24-2	Benzo(g,h,i)perylene	10	"

(1) - Cannot be separated from diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ423

Lab Name: ESE Contract: 68-W8-0008
 Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405
 Matrix: (soil/water) WATER Lab Sample ID:
 Sample wt/vol: 1000. (g/mL)ML Lab File ID: ACZWS18
 Level: (low/med) LOW Date Received: 11/29/89
 % Moisture: not dec.100. dec. 0. Date Extracted: 12/ 4/89
 Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/27/89
 GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	Alpha-BHC	.050	U
319-85-7	Beta-BHC	.050	U
319-86-8	Delta-BHC	.050	U
58-89-9	Gamma-BHC	.050	U
76-44-8	Heptachlor	.050	U
309-00-2	Aldrin	.050	U
1024-57-3	Heptachlor Epoxide	.050	U
959-98-8	Endosulfan I	.050	U
60-57-1	Dieldrin	.100	U
72-55-9	4,4'-DDE	.100	U
72-20-8	Endrin	.100	U
33213-65-9	Endosulfan II	.100	U
72-54-8	4,4'-DDD	.100	U
1031-07-8	Endosulfan Sulfate	.100	U
50-29-3	4,4'-DDT	.100	U
72-43-5	Methoxychlor	.50	U
53494-70-5	Endrin Ketone	.100	U
5103-71-9	Alpha Chlordane	.50	U
5103-74-2	Gamma Chlordane	.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	.50	U
11104-28-2	Aroclor-1221	.50	U
11141-16-5	Aroclor-1232	.50	U
53469-21-9	Aroclor-1242	.50	U
12672-29-6	Aroclor-1248	.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST

1/87 Rev.

AR301408

00465

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ424

Lab Name: ESE Contract: 68-W8-0008

Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405

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

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 85367

Level: (low/med) LOW Date Received: 11/29/89

% Moisture: not dec. 100. Date Analyzed: 11/30/89

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

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

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ424

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 22206

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not dec. 100. dec. _____

Date Extracted: 12/ 4/89

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/27/89

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

Dilution Factor: 1.00

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

106-95-2	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
100-51-6	Benzyl alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	bis(2-Chloroisopropyl)ether	10.	U
105-44-5	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
65-85-0	Benzoic acid	50.	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.	
95-95-4	2,4,5-Trichlorophenol	50.	
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U

AR301410

FORM I SV-1

1/87 Rev.

00248

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ424

Lab Name: ESE Contract: 68-WB-0008

Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405

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

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22206

Level: (low/med) LOW Date Received: 11/29/89

% Moisture: not dec. 100. dec. _____ Date Extracted: 12/ 4/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/27/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

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

CAS NO.	COMPOUND	UG/L	Q
---------	----------	------	---

99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
64-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	4,5-Dinitro-2-methylphenol	50.	U
96-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	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	20.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	5.	BJ
117-84-0	Di-n-octylphthalate	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	Dibenzo(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ424

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 1000. (g/mL)ML

Lab File ID: ACZWS16

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not dec.100. dec. 0.

Date Extracted: 12/ 4/89

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/26/89

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

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	g
---------	----------	--	---

319-84-6-----	Alpha-BHC	.050	U
319-85-7-----	Beta-BHC	.050	U
319-86-3-----	Delta-BHC	.050	U
58-29-9-----	Gamma-BHC	.050	U
76-44-8-----	Heptachlor	.050	U
309-00-2-----	Aldrin	.050	U
1024-57-3-----	Heptachlor Epoxide	.050	U
959-98-8-----	Endosulfan I	.050	U
60-57-1-----	Dieldrin	.100	U
72-55-9-----	4,4'-DDE	.100	U
72-20-8-----	Endrin	.100	U
33213-65-9-----	Endosulfan II	.100	U
72-54-8-----	4,4'-DDD	.100	U
1031-07-8-----	Endosulfan Sulfate	.100	U
50-29-3-----	4,4'-DDT	.100	U
72-43-5-----	Methoxychlor	.50	U
53494-70-5-----	Endrin Ketone	.100	U
5103-71-9-----	Alpha Chlordane	.50	U
5103-74-2-----	Gamma Chlordane	.50	U
8001-35-2-----	Toxaphene	1.0	U
12674-11-2-----	Aroclor-1016	.50	U
11104-28-2-----	Aroclor-1221	.50	U
11141-16-5-----	Aroclor-1232	.50	U
53469-21-9-----	Aroclor-1242	.50	U
12672-29-6-----	Aroclor-1248	.50	U
11097-69-1-----	Aroclor-1254	1.0	U
11096-82-5-----	Aroclor-1260	1.0	U

FORM I PEST

1/87

AR301412

00468

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ425

Lab Name: ESE

Contract: ES-W8-0008

Lab Code: ESE

Case No.: 13330

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) SOIL

Lab Sample ID:

Sample wt/vol: 5.000 (g/mL) G

Lab File ID: 85394

Level: (low/med) LDW

Date Received: 11/29/89

% Moisture: not dec. 51.

Date Analyzed: 12/ 9/89

Column: (pack/cas) PACK

Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG G

74-87-3	-----Chloromethane	21.	U
74-83-9	-----Bromomethane	21.	U
75-01-4	-----Vinyl Chloride	21.	U
75-00-3	-----Chloroethane	21.	U
75-09-2	-----Methylene Chloride	10.	U
67-64-1	-----Acetone	56.	B
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	16.	J
71-55-6	-----1,1,1-Trichloroethane	10.	U
56-23-5	-----Carbon Tetrachloride	10.	U
108-05-4	-----Vinyl Acetate	21.	U
75-27-4	-----Bromodichloromethane	10.	U
78-87-5	-----1,2-Dichloropropane	10.	U
10061-01-5	-----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
10061-02-6	-----trans-1,3-Dichloropropene	10.	U
75-25-2	-----Bromoform	10.	U
108-10-1	-----4-Methyl-2-Pentanone	21.	U
591-78-6	-----2-Hexanone	21.	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	180.	
100-41-4	-----Ethylbenzene	10.	U
100-42-5	-----Styrene	10.	U
1330-20-7	-----Xylene (total)	10.	U

FORM I VOA

1/87 Rev.

00073

AR301413

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ425

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) SOIL

Lab Sample ID:

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 22222

Level: (low/med) LCW

Date Received: 11/29/89

% Moisture: not dec. Si. dec. _____

Date Extracted: 12/ 6/89

Extraction: (SepF/Cont/Sonc) SCNC

Date Analyzed: 12/28/89

GPC Cleanup: (Y/N) N

pH: 6.5

Dilution Factor: 10.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
106-95-2	Phenol	6900.	U
111-44-4	bis(2-Chloroethyl)ether	6900.	U
95-57-8	2-Chlorophenol	6900.	U
541-73-1	1,3-Dichlorobenzene	9100.	
106-46-7	1,4-Dichlorobenzene	62000.	
100-51-6	Benzyl alcohol	6900.	U
95-50-1	1,2-Dichlorobenzene	2200.	J
95-48-7	2-Methylphenol	6900.	U
108-60-1	bis(2-Chloroisopropyl)ether	6900.	U
106-44-5	4-Methylphenol	6900.	U
521-54-7	N-Nitroso-di-n-propylamine	6900.	U
67-72-1	Hexachloroethane	6900.	U
98-95-3	Nitrobenzene	6900.	U
78-59-1	Isophorone	6900.	U
88-75-5	2-Nitrophenol	6900.	U
105-57-9	2,4-Dimethylphenol	6900.	U
65-85-0	Benzoic acid	34000.	U
111-91-1	bis(2-Chloroethoxy)methane	6900.	U
120-83-2	2,4-Dichlorophenol	6900.	U
120-82-1	1,2,4-Trichlorobenzene	37000.	
91-20-3	Naphthalene	6900.	U
106-47-8	4-Chloroaniline	6900.	U
87-68-3	Hexachlorobutadiene	6900.	U
59-50-7	4-Chloro-3-methylphenol	6900.	U
91-57-6	2-Methylnaphthalene	6900.	U
77-47-4	Hexachlorocyclopentadiene	6900.	U
88-06-2	2,4,6-Trichlorophenol	6900.	U
95-95-4	2,4,5-Trichlorophenol	34000.	U
91-58-7	2-Chloronaphthalene	6900.	U
88-74-4	2-Nitroaniline	6900.	U
131-11-3	Dimethylphthalate	6900.	U
208-96-8	Acenaphthylene	6900.	U
606-20-2	2,6-Dinitrotoluene	6900.	U

AR301414

FORM I SV-1

00253 Rev.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ425

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) SOIL

Lab Sample ID:

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 22222

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not dec. 51. dec. _____

Date Extracted: 12/ 6/89

Extraction: (SepF/Cont/Sonc) SCNC

Date Analyzed: 12/28/89

GPC Cleanup: (Y/N) N

pH: 6.5

Dilution Factor: 10.00

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG G

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	G
99-09-2	3-Nitroaniline	34000.	IU
83-32-9	Acenaphthene	6900.	IU
51-28-5	2,4-Dinitrophenol	34000.	IU
100-02-7	4-Nitrophenol	34000.	IU
132-64-9	Dibenzofuran	6900.	IU
121-14-2	2,4-Dinitrotoluene	6900.	IU
84-66-2	Diethylphthalate	6900.	IU
7005-72-3	4-Chlorophenyl-phenylether	6900.	IU
86-73-7	Fluorene	6900.	IU
100-01-6	4-Nitroaniline	34000.	IU
534-52-1	4,6-Dinitro-2-methylphenol	34000.	IU
86-30-6	N-Nitrosodiphenylamine (1)	6900.	IU
101-55-3	4-Bromophenyl-phenylether	6900.	IU
118-74-1	Hexachlorobenzene	6900.	IU
87-86-5	Pentachlorophenol	34000.	IU
85-01-8	Phenanthrene	6900.	IU
120-12-7	Anthracene	6900.	IU
84-74-2	Di-n-butylphthalate	6900.	IU
206-44-0	Fluoranthene	6900.	IU
129-00-0	Pyrene	6900.	IU
85-68-7	Butylbenzylphthalate	6900.	IU
91-94-1	3,3'-Dichlorobenzidine	14000.	IU
56-55-3	Benzo(a)anthracene	6900.	IU
218-01-9	Chrysene	6900.	IU
117-81-7	bis(2-Ethylhexyl)phthalate	6900.	IU
117-84-0	Di-n-octylphthalate	6900.	IU
205-99-2	Benzo(b)fluoranthene	6900.	IU
207-08-9	Benzo(k)fluoranthene	6900.	IU
50-32-8	Benzo(a)pyrene	6900.	IU
193-39-5	Indeno(1,2,3-cd)pyrene	6900.	IU
53-70-3	Dibenzo(a,h)anthracene	IU	IU
191-24-2	Benzo(g,h,i)perylene	IU	IU

(1) - Cannot be separated from diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ425

Lab Name: ESE Contract: 68-W8-0008
 Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405
 Matrix: (soil/water) SOIL Lab Sample ID:
 Sample wt/vol: 30. (g/mL) G Lab File ID: ACZWS24
 Level: (low/med) LOW Date Received: 11/29/89
 % Moisture: not dec. 52. dec. 0. Date Extracted: 12/ 6/89
 Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/89
 GPC Cleanup: (Y/N) Y pH: 6.5 Dilution Factor: 1.00

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

CAS NO. COMPOUND UG/KG Q

319-84-6	Alpha-BHC	33.	U
319-85-7	Beta-BHC	33.	U
319-86-9	Delta-BHC	33.	U
58-99-9	Gamma-BHC	33.	U
76-44-8	Heptachlor	33.	U
309-00-2	Aldrin	33.	U
1024-57-3	Heptachlor Epoxide	33.	U
959-98-8	Endosulfan I	33.	U
60-57-1	Dieldrin	66.	U
72-55-9	4,4'-DDE	66.	U
72-20-8	Endrin	66.	U
33213-65-9	Endosulfan II	66.	U
72-54-8	4,4'-DDD	66.	U
1031-07-8	Endosulfan Sulfate	66.	U
50-29-3	4,4'-DDT	66.	U
72-43-5	Methoxychlor	330.	U
53494-70-5	Endrin Ketone	66.	U
5103-71-9	Alpha Chlordane	330.	U
5103-74-2	Gamma Chlordane	330.	U
8001-35-2	Toxaphene	660.	U
12674-11-2	Aroclor-1016	330.	U
11104-28-2	Aroclor-1221	330.	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	660.	U
11096-82-5	Aroclor-1260	660.	U

FORM I PEST

1/87 REV.

AR301416

00471

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ426

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) SOIL

Lab Sample ID:

Sample wt/vol: 5.000 (g/mL) G

Lab File ID: 85389

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not det. 55.

Date Analyzed: 12/ 8/89

Column: (pack/cas) PAKX

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	U
74-87-3	-----Chloromethane	22.	U
74-83-9	-----Bromomethane	22.	U
75-01-4	-----Vinyl Chloride	22.	U
75-00-3	-----Chloroethane	22.	U
75-09-2	-----Methylene Chloride	11.	U
67-64-1	-----Acetone	37.	B
75-15-0	-----Carbon Disulfide	11.	U
75-35-4	-----1,1-Dichloroethene	11.	U
75-34-3	-----1,1-Dichloroethane	11.	U
340-59-0	-----1,2-Dichloroethene (total)	11.	U
67-56-3	-----Chloroform	11.	U
107-06-2	-----1,2-Dichloroethane	11.	U
78-93-3	-----2-Butanone	22.	U
71-55-6	-----1,1,1-Trichloroethane	11.	U
56-23-5	-----Carbon Tetrachloride	11.	U
108-05-4	-----Vinyl Acetate	22.	U
75-27-4	-----Bromodichloromethane	11.	U
78-87-5	-----1,2-Dichloropropane	11.	U
10061-01-5	-----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
10061-02-6	-----trans-1,3-Dichloropropene	11.	U
75-25-2	-----Bromoform	11.	U
108-10-1	-----4-Methyl-2-Pentanone	22.	U
591-78-6	-----2-Hexanone	22.	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	6.	J
100-41-4	-----Ethylbenzene	11.	U
100-42-5	-----Styrene	11.	U
1330-20-7	-----Xylene (total)		

FORM I VOA

1/87 Rev.

00080

AR301417

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ426

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDS No.: CZ405

Matrix: (soil/water) SOIL

Lab Sample ID:

Sample wt/vol: 00.0 (g/ml) G

Lab File ID: 22210

Level: (low/med) LDW

Date Received: 11/29/89

% Moisture: not det. 55. Sec. _____

Date Extracted: 12/ 8/89

Extraction: (SepF/Cont/Sonc) SCNC

Date Analyzed: 12/27/89

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

Dilution Factor: 2.00

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

CAS NO.	COMPOUND	UG/KG	Q
---------	----------	-------	---

108-95-2	Phenol	1500.	U
111-44-4	bis(2-Chloroethyl)ether	1500.	U
95-57-8	2-Chlorophenol	1500.	U
541-73-1	1,3-Dichlorobenzene	1500.	U
106-46-7	1,4-Dichlorobenzene	190.	J
100-51-6	Benzyl alcohol	1500.	U
95-50-1	1,2-Dichlorobenzene	1500.	U
95-48-7	2-Methylphenol	1500.	U
108-60-1	bis(2-Chloroisopropyl)ether	1500.	U
106-44-5	4-Methylphenol	1500.	U
621-64-7	N-Nitroso-di-n-propylamine	1500.	U
67-72-1	Hexachloroethane	1500.	U
98-95-3	Nitrobenzene	1500.	U
78-59-1	Isophorone	1500.	U
88-75-5	2-Nitrophenol	1500.	U
105-67-9	2,4-Dimethylphenol	1500.	U
65-85-0	Benzoic acid	7000.	U
111-91-1	bis(2-Chloroethoxy)methane	1500.	U
120-83-2	2,4-Dichlorophenol	1500.	U
120-82-1	1,2,4-Trichlorobenzene	1500.	U
91-20-3	Naphthalene	1500.	U
106-47-8	4-Chloroaniline	1500.	U
97-68-3	Hexachlorobutadiene	1500.	U
59-50-7	4-Chloro-3-methylphenol	1500.	U
91-57-6	2-Methylnaphthalene	1500.	U
77-47-4	Hexachlorocyclopentadiene	1500.	U
82-06-2	2,4,6-Trichlorophenol	1500.	U
95-95-4	2,4,5-Trichlorophenol	7000.	U
91-58-7	2-Chloronaphthalene		
88-74-4	2-Nitroaniline		
131-11-3	Dimethylphthalate	1500.	U
209-96-9	Acenaphthylene	1500.	U
606-20-2	2,6-Dinitrotoluene	1500.	U

AR301418

FORM I SV-1

1/87 Re

AA 272

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ426

Lab Name: ESE Contract: 68-W8-0008

Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405

Matrix: (soil/water) SOIL (S) (W) (G) (L) (S) (L) (G) (L) Lab Sample ID:

Sample wt/vol: 30.0 (g/ML) (g) (L) (S) (L) (G) (L) Lab File ID: 12210

Level: (low/med) LOW Date Received: 11/29/89

% Moisture: not det. 55% (det.) (det.) (det.) (det.) Date Extracted: 12/ 6/89

Extraction: (SepF/Cont/Bond) SONG Date Analyzed: 12/27/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 2.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	7000.	IU
83-32-9	Acenaphthene	1500.	IU
51-28-5	2,4-Dinitrophenol	7000.	IU
100-02-7	4-Nitrophenol	7000.	IU
132-64-9	Dibenzofuran	1500.	IU
121-14-2	2,4-Dinitrotoluene	1500.	IU
84-66-2	Diethylphthalate	1500.	IU
7005-72-3	4-Chlorophenyl-phenylether	1500.	IU
86-73-7	Fluorene	1500.	IU
100-01-6	4-Nitroaniline	7000.	IU
534-52-1	4,6-Dinitro-2-methylphenol	7000.	IU
86-30-6	N-Nitrosodiphenylamine (1)	1500.	IU
101-55-3	4-Bromophenyl-phenylether	1500.	IU
118-74-1	Hexachlorobenzene	1500.	IU
87-86-5	Pentachlorophenol	7000.	IU
85-01-8	Phenanthrene	1500.	IU
120-12-7	Anthracene	1500.	IU
84-74-2	Di-n-butylphthalate	1500.	IU
206-44-0	Fluoranthene	130.	J
129-00-0	Pyrene	140.	J
85-68-7	Butylbenzylphthalate	1500.	IU
91-94-1	3,3'-Dichlorobenzidine	3000.	IU
56-55-3	Benzo(a)anthracene	1500.	IU
218-01-9	Chrysene	1500.	IU
117-81-7	bis(2-Ethylhexyl)phthalate	210.	BJ
117-84-0	Di-n-octylphthalate	1500.	IU
205-99-2	Benzo(b)fluoranthene	1500.	IU
207-08-9	Benzo(k)fluoranthene	1500.	IU
50-32-8	Benzo(a)pyrene	1500.	IU
193-39-5	Indeno(1,2,3-cd)pyrene	1500.	IU
53-70-3	Dibenzo(a,h)anthracene	1500.	IU
191-24-2	Benzo(g,h,i)perylene	1500.	IU

(1) - Cannot be separated from diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ426

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) SOIL

Lab Sample ID:

Sample wt/vol: 30. (g/mL) G

Lab File ID: ACZWS26

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not dec. 55. dec. 0.

Date Extracted: 12/ 6/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/27/89

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

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

319-84-6	Alpha-BHC	36.	1U
319-85-7	Beta-BHC	36.	1U
319-86-8	Delta-BHC	36.	1U
58-89-9	Gamma-BHC	36.	1U
76-44-8	Heptachlor	36.	1U
309-00-2	Aldrin	36.	1U
1024-57-3	Heptachlor Epoxide	36.	1U
959-98-8	Endosulfan I	36.	1U
60-57-1	Dieldrin	72.	1U
72-55-9	4,4'-DDE	72.	1U
72-20-8	Endrin	72.	1U
33213-65-9	Endosulfan II	72.	1U
72-54-8	4,4'-DDD	72.	1U
1031-07-8	Endosulfan Sulfate	72.	1U
50-29-3	4,4'-DDT	72.	1U
72-43-5	Methoxychlor	360.	1U
53494-70-5	Endrin Ketone	72.	1U
5103-71-9	Alpha Chlordane	360.	1U
5103-74-2	Gamma Chlordane	360.	1U
8001-35-2	Toxaphene	720.	1U
12674-11-2	Aroclor-1016	360.	1U
11104-28-2	Aroclor-1221	360.	1U
11141-16-5	Aroclor-1232	360.	1U
53469-21-9	Aroclor-1242	360.	1U
12672-29-6	Aroclor-1248	360.	1U
11097-69-1	Aroclor-1254	720.	1U
11096-82-5	Aroclor-1260	720.	1U

AR301420

00474

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ427

Lab Name: ESE Contract: 68-W8-0008
 Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405
 Matrix: (soil/water) SOIL Lab Sample ID:
 Sample wt/vol: 5.000 (g/mL) G Lab File ID: 85390
 Level: (low/med) LOW Date Received: 11/29/89
 % Moisture: not dec. 64. Date Analyzed: 12/ 8/89
 Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	-----Chloromethane	27.	U
74-89-9	-----Bromomethane	27.	U
75-01-4	-----Vinyl Chloride	27.	U
75-00-3	-----Chloroethane	27.	U
75-08-2	-----Methylene Chloride	14.	U
67-64-1	-----Acetone	27.	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	27.	U
71-55-6	-----1,1,1-Trichloroethane	14.	U
56-23-5	-----Carbon Tetrachloride	14.	U
108-05-4	-----Vinyl Acetate	27.	U
75-27-4	-----Bromodichloromethane	14.	U
78-87-5	-----1,2-Dichloropropane	14.	U
10061-01-5	-----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
10061-02-6	-----trans-1,3-Dichloropropene	14.	U
75-25-2	-----Bromoform	14.	U
108-10-1	-----4-Methyl-2-Pentanone	27.	U
591-78-6	-----2-Hexanone	27.	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	9.	J
100-41-4	-----Ethylbenzene	14.	U
100-42-5	-----Styrene	14.	U
1330-20-7	-----Xylene (total)	14.	U

FORM I VOA

1/87 Rev

00086

AR301421

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ427

Lab Name: ESE Contract: 68-W8-0008
 Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405
 Matrix: (soil/water) SOIL Lab Sample ID:
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 22221
 Level: (low/med) LOW Date Received: 11/29/89
 % Moisture: not dec. 64. dec. Date Extracted: 12/ 8/89
 Extraction: (SepF/Cont/Sonc) SOHC Date Analyzed: 12/28/89
 GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1800.	U
111-44-4	bis(2-Chloroethyl)ether	1800.	U
95-57-8	2-Chlorophenol	1800.	U
541-73-1	1,3-Dichlorobenzene	530.	J
106-46-7	1,4-Dichlorobenzene	4100.	
100-51-6	Benzyl alcohol	1800.	U
95-50-1	1,2-Dichlorobenzene	170.	J
95-48-7	2-Methylphenol	1800.	U
108-60-1	bis(2-Chloroisopropyl)ether	1800.	U
106-44-5	4-Methylphenol	1800.	U
621-64-7	N-Nitroso-di-n-propylamine	1800.	U
67-72-1	Hexachloroethane	1800.	U
98-95-3	Nitrobenzene	1800.	U
78-59-1	Isophorone	1800.	U
88-75-5	2-Nitrophenol	1800.	U
105-67-9	2,4-Dimethylphenol	1800.	U
65-85-0	Benzoic acid	8800.	U
111-91-1	bis(2-Chloroethoxy)methane	1800.	U
120-83-2	2,4-Dichlorophenol	1800.	U
120-82-1	1,2,4-Trichlorobenzene	1100.	J
91-20-3	Naphthalene	1800.	U
106-47-8	4-Chloroaniline	1800.	U
87-68-3	Hexachlorobutadiene	1800.	U
59-50-7	4-Chloro-3-methylphenol	1800.	U
91-57-6	2-Methylnaphthalene	1800.	U
77-47-4	Hexachlorocyclopentadiene	1800.	U
98-06-2	2,4,6-Trichlorophenol	1800.	U
95-95-4	2,4,5-Trichlorophenol	8800.	U
91-58-7	2-Chloronaphthalene	1800.	U
88-74-4	2-Nitroaniline	8800.	U
131-11-3	Dimethylphthalate		
208-96-8	Acenaphthylene	1800.	U
606-20-2	2,6-Dinitrotoluene	1800.	U

AR301422

FORM I SV-1

1/87 Re

00306

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ427

Lab Name: ESE Contract: 68-W8-0008
 Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405
 Matrix: (Soil/Water) SOIL Lab Sample ID:
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 22221
 Level: (low/med) LDW Date Received: 11/29/89
 % Moisture: not dec. 54. dec. Date Extracted: 12/ 6/89
 Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/28/89
 GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 2.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	8800.	U
83-32-9	Acenaphthene	1800.	U
51-28-5	2,4-Dinitrophenol	8800.	U
100-02-7	4-Nitrophenol	8800.	U
132-64-9	Dibenzofuran	1800.	U
121-14-2	2,4-Dinitrotoluene	1800.	U
84-66-2	Diethylphthalate	1800.	U
7005-72-3	4-Chlorophenyl-phenylether	1800.	U
86-73-7	Fluorene	1800.	U
100-01-6	4-Nitroaniline	8800.	U
534-52-1	4,6-Dinitro-2-methylphenol	8800.	U
86-30-6	N-Nitrosodiphenylamine (1)	1800.	U
101-55-3	4-Bromophenyl-phenylether	1800.	U
118-74-1	Hexachlorobenzene	1800.	U
87-86-5	Pentachlorophenol	8800.	U
85-01-8	Phenanthrene	1800.	U
120-12-7	Anthracene	1800.	U
84-74-2	Di-n-butylphthalate	1800.	U
206-44-0	Fluoranthene	130.	J
129-00-0	Pyrene	150.	J
85-68-7	Butylbenzylphthalate	1800.	U
91-94-1	3,3'-Dichlorobenzidine	3700.	U
56-55-3	Benzo(a)anthracene	1800.	U
218-01-9	Chrysene	1800.	U
117-81-7	bis(2-Ethylhexyl)phthalate	730.	EJ
117-84-0	Di-n-octylphthalate	1800.	U
205-99-2	Benzo(b)fluoranthene	1800.	U
207-08-9	Benzo(k)fluoranthene	1800.	U
50-32-8	Benzo(a)pyrene	1800.	U
193-39-5	Indeno(1,2,3-cd)pyrene	1800.	U
53-70-3	Dibenzo(a,h)anthracene	1800.	U
191-24-2	Benzo(g,h,i)perylene	1800.	U

(1) - Cannot be separated from diphenylamine

00207

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ427

Lab Name: ESE Contract: 68-W8-0008
 Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405
 Matrix: (soil/water) SOIL Lab Sample ID:
 Sample wt/vol: 30. (g/mL) G Lab File ID: ACZWS29
 Level: (low/med) LOW Date Received: 11/29/89
 % Moisture: not dec. 64. dec. 0. Date Extracted: 12/ 6/89
 Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/89
 GPC Cleanup: (Y/N) Y pH: 7.3 Dilution Factor: 1.00

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

CAS NO.	COMPOUND	UG/KG	Q
319-84-6	Alpha-BHC	44.	U
319-85-7	Beta-BHC	44.	U
319-86-8	Delta-BHC	44.	U
58-89-9	Gamma-BHC	44.	U
76-44-8	Heptachlor	44.	U
309-00-2	Aldrin	44.	U
1024-57-3	Heptachlor Epoxide	44.	U
959-98-8	Endosulfan I	44.	U
60-57-1	Dieldrin	88.	U
72-55-9	4,4'-DDE	88.	U
72-20-8	Endrin	88.	U
33213-65-9	Endosulfan II	88.	U
72-54-8	4,4'-DDD	88.	U
1031-07-8	Endosulfan Sulfate	88.	U
50-29-3	4,4'-DDT	88.	U
72-43-5	Methoxychlor	440.	U
53494-70-5	Endrin Ketone	88.	U
5103-71-9	Alpha Chlordane	440.	U
5103-74-2	Gamma Chlordane	440.	U
8001-35-2	Toxaphene	880.	U
12674-11-2	Aroclor-1016	440.	U
11104-28-2	Aroclor-1221	440.	U
11141-16-5	Aroclor-1232	440.	U
53469-21-9	Aroclor-1242	440.	U
12672-29-6	Aroclor-1248	440.	U
11097-69-1	Aroclor-1254	880.	U
11096-82-5	Aroclor-1260	880.	U

AR301424

00477

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ESE

Contract: 68-W8-0008

CZ428

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) SOIL

Lab Sample ID:

Sample wt/vol: 1.000 (g/mL) G

Lab File ID: 85395

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not dec. 53.

Date Analyzed: 12/ 8/89

Column: (pack/cap) PACK

Dilution Factor:

1.00
5.00 mg
3/7

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

CAS NO.

COMPOUND

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	53.	U
67-64-1	-----Acetone	88.	BJ
75-15-0	-----Carbon Disulfide	53.	U
75-35-4	-----1,1-Dichloroethene	53.	U
75-34-3	-----1,1-Dichloroethane	53.	U
540-59-0	-----1,2-Dichloroethene (total)	53.	U
67-66-3	-----Chloroform	53.	U
107-06-2	-----1,2-Dichloroethane	53.	U
78-93-3	-----2-Butanone	110.	U
71-55-6	-----1,1,1-Trichloroethane	53.	U
56-23-5	-----Carbon Tetrachloride	53.	U
108-05-4	-----Vinyl Acetate	110.	U
75-27-4	-----Bromodichloromethane	53.	U
78-87-5	-----1,2-Dichloropropane	53.	U
10061-01-5	-----cis-1,3-Dichloropropene	53.	U
79-01-6	-----Trichloroethene	53.	U
124-48-1	-----Dibromochloromethane	53.	U
79-00-5	-----1,1,2-Trichloroethane	53.	U
71-43-2	-----Benzene	53.	U
10061-02-6	-----trans-1,3-Dichloropropene	53.	U
75-25-2	-----Bromoform	53.	U
108-10-1	-----4-Methyl-2-Pentanone	110.	U
591-78-6	-----2-Hexanone	110.	U
127-18-4	-----Tetrachloroethene	53.	U
79-34-5	-----1,1,2,2-Tetrachloroethane	53.	U
108-88-3	-----Toluene	53.	U
108-90-7	-----Chlorobenzene	920.	
100-41-4	-----Ethylbenzene	53.	U
100-42-5	-----Styrene		J
1330-20-7	-----Xylene (total)		J

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ429

Lab Name: ESE Contract: 62-W8-0008
 Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405
 Matrix: (soil/water) SCIL Lab Sample ID:
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 22223
 Level: (low/med) LCW Date Received: 11/29/89
 % Moisture: not dec. 53. dec. _____ Date Extracted: 12/ 6/89
 Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/28/89
 GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 20.00

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG G

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	G
106-95-2	Phenol	14000.	1U
111-44-4	bis(2-Chloroethyl)ether	14000.	1U
95-57-8	2-Chlorophenol	14000.	1U
541-73-1	1,3-Dichlorobenzene	14000.	
106-46-7	1,4-Dichlorobenzene	160000.	
100-51-6	Benzyl alcohol	14000.	1U
95-50-1	1,2-Dichlorobenzene	4800.	J
95-48-7	2-Methylphenol	14000.	1U
108-60-1	bis(2-Chloroisopropyl)ether	14000.	1U
106-44-5	4-Methylphenol	14000.	1U
621-64-7	N-Nitroso-di-n-propylamine	14000.	1U
67-72-1	Hexachloroethane	14000.	1U
98-95-3	Nitrobenzene	14000.	1U
78-59-1	Isophorone	14000.	1U
88-75-5	2-Nitrophenol	14000.	1U
105-67-9	2,4-Dimethylphenol	14000.	1U
65-85-0	Benzoic acid	71000.	1U
111-91-1	bis(2-Chloroethoxy)methane	14000.	1U
120-83-2	2,4-Dichlorophenol	14000.	1U
120-82-1	1,2,4-Trichlorobenzene	63000.	
91-20-3	Naphthalene	14000.	1U
105-47-8	4-Chloroaniline	14000.	1U
87-68-3	Hexachlorobutadiene	14000.	1U
59-50-7	4-Chloro-3-methylphenol	14000.	1U
91-57-6	2-Methylnaphthalene	14000.	1U
77-47-4	Hexachlorocyclopentadiene	14000.	1U
88-06-2	2,4,6-Trichlorophenol	14000.	1U
95-95-4	2,4,5-Trichlorophenol	71000.	1U
91-58-7	2-Chloronaphthalene	1	
88-74-4	2-Nitroaniline	7	
131-11-3	Dimethylphthalate	14000.	1U
208-96-8	Acenaphthylene	14000.	1U
606-20-2	2,6-Dinitrotoluene	14000.	1U

AR301426

FORM I SV-1

1/87 Rev.

00341

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ428

Lab Name: ESE Contract: 68-W8-0008
 Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405
 Matrix: (soil/water) SOIL Lab Sample ID:
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 22223
 Level: (low/med) LOW Date Received: 11/29/89
 % Moisture: not dec. 53. dec. _____ Date Extracted: 12/ 6/89
 Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/28/89
 GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 20.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q.
99-09-2	3-Nitroaniline	71000.	U
83-32-9	Acenaphthene	14000.	U
51-28-5	2,4-Dinitrophenol	71000.	U
100-02-7	4-Nitrophenol	71000.	U
132-64-9	Dibenzofuran	14000.	U
121-14-2	2,4-Dinitrotoluene	14000.	U
84-56-2	Diethylphthalate	14000.	U
7005-72-3	4-Chlorophenyl-phenylether	14000.	U
88-73-7	Fluorene	14000.	U
100-01-5	4-Nitroaniline	71000.	U
534-52-1	4,6-Dinitro-2-methylphenol	71000.	U
96-30-6	N-Nitrosodiphenylamine (1)	14000.	U
101-55-3	4-Bromophenyl-phenylether	14000.	U
119-74-1	Hexachlorobenzene	14000.	U
87-86-5	Pentachlorophenol	71000.	U
85-01-8	Phenanthrene	14000.	U
120-12-7	Anthracene	14000.	U
94-74-2	Di-n-butylphthalate	14000.	U
206-44-0	Fluoranthene	14000.	U
129-00-0	Pyrene	14000.	U
85-68-7	Butylbenzylphthalate	14000.	U
91-94-1	3,3'-Dichlorobenzidine	28000.	U
55-55-3	Benzo(a)anthracene	14000.	U
218-01-9	Chrysene	14000.	U
117-81-7	bis(2-Ethylhexyl)phthalate	14000.	U
117-84-0	Di-n-octylphthalate	14000.	U
205-99-2	Benzo(b)fluoranthene	14000.	U
207-08-9	Benzo(k)fluoranthene	14000.	U
50-32-8	Benzo(a)pyrene	14000.	U
199-39-5	Indeno(1,2,3-cd)pyrene	14000.	U
53-70-3	Dibenzo(a,h)anthracene	14000.	U
191-24-2	Benzo(g,h,i)perylene	14000.	U

(1) - Cannot be separated from diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ428

Lab Name: ESE Contract: 68-W8-0008
 Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405
 Matrix: (soil/water) SOIL Lab Sample ID:
 Sample wt/vol: 30. (g/mL) G Lab File ID: ACZWS30
 Level: (low/med) LOW Date Received: 11/29/89
 % Moisture: not dec. 53. dec. 0. Date Extracted: 12/ 6/89
 Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/89
 GPC Cleanup: (Y/N) Y pH: 7.3 Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	-----Alpha-BHC	34.	U
319-85-7	-----Beta-BHC	34.	U
319-86-8	-----Delta-BHC	34.	U
58-89-9	-----Gamma-BHC	34.	U
76-44-8	-----Heptachlor	34.	U
309-00-2	-----Aldrin	34.	U
1024-57-3	-----Heptachlor Epoxide	34.	U
959-98-8	-----Endosulfan I	34.	U
60-57-1	-----Dieldrin	68.	U
72-55-9	-----4,4'-DDE	68.	U
72-20-8	-----Endrin	68.	U
33213-65-9	-----Endosulfan II	68.	U
72-54-8	-----4,4'-DDD	68.	U
1031-07-8	-----Endosulfan Sulfate	68.	U
50-29-3	-----4,4'-DDT	68.	U
72-43-5	-----Methoxychlor	340.	U
53494-70-5	-----Endrin Ketone	68.	U
5103-71-9	-----Alpha Chlordane	340.	U
5103-74-2	-----Gamma Chlordane	340.	U
8001-35-2	-----Toxaphene	680.	U
12674-11-2	-----Aroclor-1016	340.	U
11104-28-2	-----Aroclor-1221	340.	U
11141-16-5	-----Aroclor-1232	340.	U
53469-21-9	-----Aroclor-1242	340.	U
12672-29-6	-----Aroclor-1248	340.	U
11097-69-1	-----Aroclor-1254	680.	U
11096-82-5	-----Aroclor-1260	680.	U

FORM I PEST

1/87 Rev.

AR301428

00479

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ432

Lab Name: ESE Contract: 68-W8-0008
 Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405
 Matrix: (soil/water) WATER Lab Sample ID:
 Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 85368
 Level: (low/med) LOW Date Received: 11/29/89
 % Moisture: not dec. 100. Date Analyzed: 11/30/89
 Column: (pack/cap) PACK Dilution Factor: 1.00

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

97

FORM I VOA

1/87 Rev.

AR301429

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ432

Lab Name: ESE Contract: 68-W8-0008
 Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405
 Matrix: (soil/water) WATER Lab Sample ID:
 Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22207
 Level: (low/med) LGW Date Received: 11/29/89
 % Moisture: not dec. 100. dsc. _____ Date Extracted: 12/ 4/89
 Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/27/89
 GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

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	3.	J
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
100-51-6	Benzyl alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	bis(2-Chloroisopropyl)ether	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
65-85-0	Benzoic acid	50.	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	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	
131-11-3	Dimethylphthalate	10.	
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U

AR301430

FORM I SV-1

1/87-Rev.
00356

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ432

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 22207

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not dec. 100. dec. _____

Date Extracted: 12/ 4/89

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/27/89

GPC Cleanup: (Y/N) N

pH: 7.0

Dilution Factor: 1.00

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

CAS NO.

COMPOUND

Q

99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	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	50.	U
534-52-1	4,6-Dinitro-2-methylphenol	50.	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	50.	U
95-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	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	20.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	7.	BJ
117-84-0	Di-n-octylphthalate	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	Dibenzo(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CZ432

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 1000. (g/mL)ML

Lab File ID: ACZWS22

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not dec.100. dec. 0.

Date Extracted: 12/ 4/89

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/27/89

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

Dilution Factor: ...1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	Alpha-BHC	.050	U
319-85-7	Beta-BHC	.050	U
319-86-8	Delta-BHC	.050	U
58-89-9	Gamma-BHC	.050	U
76-44-8	Heptachlor	.050	U
309-00-2	Aldrin	.050	U
1024-57-3	Heptachlor Epoxide	.050	U
959-98-8	Endosulfan I	.050	U
60-57-1	Dieldrin	.100	U
72-55-9	4,4'-DDE	.100	U
72-20-8	Endrin	.100	U
33213-65-9	Endosulfan II	.100	U
72-54-8	4,4'-DDD	.100	U
1031-07-8	Endosulfan Sulfate	.100	U
50-29-3	4,4'-DDT	.100	U
72-43-5	Methoxychlor	.50	U
53494-70-5	Endrin Ketone	.100	U
5103-71-9	Alpha Chlordane	.50	U
5103-74-2	Gamma Chlordane	.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	.50	U
11104-28-2	Aroclor-1221	.50	U
11141-16-5	Aroclor-1232	.50	U
53469-21-9	Aroclor-1242	.50	U
12672-29-6	Aroclor-1248	.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I-PEST

1/87 Rev.

AR301432

00482

WESTONSM

Appendix D
Reviewed and Corrected
Tentatively Identified Compounds

AR301433

Appendix D
Reviewed and Corrected
Tentatively Identified Compounds

AR301434

13
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CZ405

Lab Name: ESE

Contract: 68-WB-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 85360

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not dec. 100.

Date Analyzed: 11/30/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
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10.				
11.				
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23.				
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27.				
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30.				

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CZ406

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ406

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 85374

Level: (low/med) LOW

Date Received: 11/30/89

% Moisture: not dec. 100.

Date Analyzed: 12/ 4/89

Column: (pack/cap) PAXX

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
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28.				
29.				
30.				

FORM I VOA-TIC

7 Rev

00036

AR301436

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

419 DRK
CZ405 11/30

Lab Name: ESE

Contract: 68-W6-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 85363

Level: (low/med) LOW

Date Received: 11/30/89

% Moisture: not det. 100.

Date Analyzed: 11/30/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	G
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
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25.				
26.				
27.				
28.				
29.				
30.				

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CZ419

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 22202

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not dec. 100. dec. _____

Date Extracted: 12/ 4/89

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/27/89

GPC Cleanup: (Y/N) N

pH: 7.0

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
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20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

AR301438

FORM I SV-TIC

1/87 Rev.

00210

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS.

EPA SAMPLE NO.

CZ420

Lab Name: ESE

Contract: 88-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) SOIL

Lab Sample ID:

Sample wt/vol: 4.000 (g/mL) G

Lab File ID: 85400

Level: (low/med) MED

Date Received: 11/30/89

% Moisture: not dec. 60.

Date Analyzed: 12/ 9/89

Column: (pack/cap) PACK

Dilution Factor: ~~100.00~~ ^{2.00} _{1/25}

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPL

CZ420

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) SOIL

Lab Sample ID:

Sample wt/vol: 4.000 (g/mL) G

Lab File ID: 85411

Level: (low/med) MED

Date Received: 11/30/89

% Moisture: not dec. 50.

Date Analyzed: 12/10/89

Column: (pack/cap) PACK

Dilution Factor: ^{5.0}
~~1.0~~

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
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FORM I VOA-TIC

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1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CZ420

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) SOIL

Lab Sample ID:

Sample wt/vol: 1.000 (g/mL) G

Lab File ID: 22225

Level: (low/med) MED

Date Received: 11/30/89

% Moisture: not dec. 50. dec. _____

Date Extracted: 12/ 8/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/28/89

GPC Cleanup: (Y/N) N pH: 6.2

Dilution Factor: 10.00

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 87-61-5	Benzene, 1,2,3-trichloro-	9.44	500000.	J
2. 634-66-2	Benzene, 1,2,3,4-tetrachloro	11.21	800000.	J
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FORM I SV-TIC

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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CZ422

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 85372

Level: (low/med) LOW

Date Received: 11/30/89

% Moisture: not dec. 100.

Date Analyzed: 12/ 4/89

Column: (pack/cap) PACK

Dilution Factor: 5.00

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 106-46-7	Benzene, 1,4-dichloro-	33.58	200.	J
2.				
3.				
4.				
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1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CZ422

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 22208

Level: (low/med) LCW

Date Received: 11/30/89

% Moisture: not dec. 100. dec. _____

Date Extracted: 12/ 4/89

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/27/89

GPC Cleanup: (Y/N) N

pH: 7.0

Dilution Factor: 2.00

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

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	87-51-5 Benzene, 1,2,3-trichloro-	9.39	10.	J
2.				
3.				
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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CZ423

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 85359

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not dec. 100.

Date Analyzed: 11/30/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CZ423

Sample Name: ESE

Contract: 68-WB-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 22203

Level: (low/med) LOW

Date Received: 11/29/89

Moisture: not dec. 100. dec. _____

Date Extracted: 12/ 4/89

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/27/89

PC Cleanup: (Y/N) N

pH: 7.0

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CZ424

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 85367

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not dec. 100.

Date Analyzed: 11/30/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
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FORM I VOA-TIC

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1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

CZ424

Name: ESE Contract: 68-W8-0008

Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405

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

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22206

Depth: (low/med) LOW Date Received: 11/29/89

Disturbance: not dec. 100. dec. _____ Date Extracted: 12/ 4/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/27/89

Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CZ425

Lab Name: ESE

Contract: 68-WS-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) SOIL

Lab Sample ID:

Sample wt/vol: 5.000 (g/mL) G

Lab File ID: 85394

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not dec. 51.

Date Analyzed: 12/ 8/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	G
1.				
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FORM 1 VOA-TIC

1/87 Rev.

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1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CZ425

Lab Name: ESE Contract: 68-W8-0008
 Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405
 Matrix: (soil/water) SOIL Lab Sample ID:
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 22222
 Level: (low/med) LOW Date Received: 11/29/89
 % Moisture: not dec. 51. dec. Date Extracted: 12/ 6/89
 Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/28/89
 GPC Cleanup: (Y/N) N pH: 6.5 Dilution Factor: 10.00

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

Number TICs found: 8

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	G
1.	87-61-5 Benzene, 1,2,3-trichloro-	9.43	10000.	J
2.	634-66-2 Benzene, 1,2,3,4-tetrachloro	11.20	2000.	J
3.	95-94-3 Benzene, 1,2,4,5-tetrachloro	11.87	4000.	J
4.	10544-50-0 Sulfur, mol. (S8)	19.10	20000.	J
5.	- - UNKNOWN	24.93	6000.	J
6.	- - UNKNOWN HYDROCARBON	26.36	4000.	J
7.	- - UNKNOWN HYDROCARBON	27.68	3000.	J
8.	- - UNKNOWN	29.61	4000.	J
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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

METHOD NO.

CZ426

Lab Name: ESE

Contract: 68-WB-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) SOIL

Lab Sample ID:

Sample wt/vol: 5.000 (g/mL) G

Lab File ID: 85389

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not dec. 55.

Date Analyzed: 12/ 8/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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3.				
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1/87 Rev.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CZ426

Name: ESE Contract: 68-W8-0008
 Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405
 Matrix: (soil/water) SOIL Lab Sample ID:
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 22210
 Level: (low/med) LOW Date Received: 11/29/89
 % Moisture: not dec. 55. dec. _____ Date Extracted: 12/ 6/89
 Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/27/89
 GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 2.00

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

Number TICs found: 18

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	G
1.	UNKNOWN Methyl Ketone	3.29	700.	J A
2.	UNKNOWN Methyl Ketone	4.51	2000.	J A
3.	UNKNOWN Methyl Ketone	5.51	1000.	J A
4.	UNKNOWN Methyl Ketone	6.51	500.	J A
5.	UNKNOWN	13.21	300.	J
6.	504-96-1 Neophytadiene	17.45	1000.	J
7.	UNKNOWN Neophytadiene isomer	17.70	300.	J
8.	UNKNOWN Neophytadiene isomer	17.88	600.	J
9.	2091-29-4 9-Hexadecenoic acid	18.69	300.	J
10.	10544-50-0 Sulfur, mol. (S2)	19.14	90000.	J
11.	638-57-5 Tricosane	21.75	400.	J
12.	UNKNOWN	23.31	800.	J
13.	UNKNOWN HYDROCARBON	23.38	600.	J
14.	UNKNOWN HYDROCARBON	24.89	3000.	J
15.	4500-01-0 9-Octadecenoic acid (Z)-, 2-	25.60	700.	J
16.	UNKNOWN HYDROCARBON	26.30	2000.	J
17.	UNKNOWN HYDROCARBON	27.61	1000.	J
18.	UNKNOWN	28.62	900.	J
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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CZ427

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) SOIL

Lab Sample ID:

Sample wt/vol: 5.000 (g/mL) G

Lab File ID: 85390

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not dec. 64.

Date Analyzed: 12/ 8/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CZ427

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) SOIL

Lab Sample ID:

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 22221

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not dec. 64. dec. _____

Date Extracted: 12/ 6/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/28/89

GPC Cleanup: (Y/N) N

pH: 7.3

Dilution Factor: 2.00

Number TICs found: 18

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN Methyl Ketene	4.41	3000.	J A
2.	UNKNOWN Methyl Ketene	6.76	700.	J A
3.	629-78-7 Heptadecane	16.16	800.	J
4.	504-96-1 Neophytadiene	17.65	2000.	J
5.	UNKNOWN Neophytadiene isomer	17.90	1000.	J
6.	UNKNOWN Neophytadiene isomer	18.08	1000.	J
7.	2091-29-4 9-Hexadecenoic acid	18.71	2000.	J
8.	57-10-3 Hexadecanoic acid	18.91	1000.	J
9.	10544-50-0 Sulfur, mol. (S8)	19.22	2000.	J
10.	638-67-5 Tricosane	21.96	1000.	J
11.	UNKNOWN	23.51	2000.	J
12.	UNKNOWN	25.06	2000.	J
13.	593-49-7 Heptacosane	25.09	2000.	J
14.	UNKNOWN HYDROCARBON	26.50	5000.	J
15.	UNKNOWN	27.83	4000.	J
16.	UNKNOWN	29.14	2000.	J
17.	UNKNOWN	29.30	2000.	J
18.	UNKNOWN	29.73	3000.	J
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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CZ428

Lab Name: ESE

Contract: 68-WB-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) SCIL

Lab Sample ID:

Sample wt/vol: 1.000 (g/mL) G

Lab File ID: 85395

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not dec. 53.

Date Analyzed: 12/ 8/89

Column: (pack/cap) PACK

Dilution Factor:

1.00
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3/7

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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3.				
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CZ428

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) SOIL

Lab Sample ID:

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 22223

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not dec. 53. dec. _____

Date Extracted: 12/ 6/89

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/28/89

GPC Cleanup: (Y/N) N

pH: 7.3

Dilution Factor: 20.00

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 87-61-5	Benzene, 1,2,3-trichloro-	9.45	30000.	J
2. 95-94-3	Benzene, 1,2,4,5-tetrachloro	11.88	10000.	J
3. 10544-50-0	Sulfur, mol. (S8)	19.10	10000.	J
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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CZ492

Lab Name: ESE

Contract: 68-W8-0008

Lab Code: ESE

Case No.: 13230

SAS No.:

SDG No.: CZ405

Matrix: (soil/water) WATER

Lab Sample ID:

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 85368

Level: (low/med) LOW

Date Received: 11/29/89

% Moisture: not dec. 100.

Date Analyzed: 11/30/89

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CZ432

Lab Name: ESE Contract: 68-W8-0008
 Lab Code: ESE Case No.: 13230 SAS No.: SDG No.: CZ405
 Matrix: (soil/water) WATER Lab Sample ID:
 Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22207
 Level: (low/med) LOW Date Received: 11/29/89
 % Moisture: not dec. 100. dec. _____ Date Extracted: 12/ 4/89
 Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/27/89
 GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
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