MAY 28 1993

US EPA RECORDS CENTER REGION 5
422292

MAY 20 1993

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 5/25/93

SUBJECT: Review of Region V CLP Data
Received for Review on April 23, 1993

FROM: Charles T. Elly, Director (SL-10C) Patrick J. Chunilla for C.T. Elly
Central Regional Laboratory

TO: Data User: PRC

We have reviewed the data for the following case.

SITE NAME: Treasure Island-Man (OH)

CASE and/or SAS NUMBER: 19635 (2) SDG NUMBER: ETF23

Number and Type of Samples: 9 (soil)

CLP Sample Numbers: ETF23-26 ETF28-32

CLP Laboratory: Compuchem Hrs. for Review 15+3=18 wtw

Following are our findings:

THE DATA ARE USABLE WITH THE QUALIFICATIONS NOTED IN THE ATTACHED REVIEW.

- Patrick J. Chunilla
5/25/93

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualification.
( ) Data are preliminary, pending verification by laboratory.
( ) Data are unacceptable.

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

NARRATIVE

CONTRACTOR: **COMPUCHEM, RTP**
CASE: **19635 (2)**
SITE: **TREASURE ISLAND-MAN (OH)**

Nine (9) soil samples, numbered ETF23 - 26 and ETF28 - 32, were collected March 23 and 24, 1993. The CompuChem Laboratory of Research Triangle Park, North Carolina received all nine samples on March 24 and 25, 1993 in good condition following CLP SOW OLM01.8 (8/91). The nine soil samples were analyzed for all three fractions: Volatiles (VOA), Semi-Volatiles (SVOA), and Pesticide/PCBs (Pest/PCBs).

Soil sample ETF28 was used as the low level spike for all three fractions.

There were no samples in the case identified as field blank or field duplicate.

VOA samples were all analyzed within the holding time of fourteen (14) days for soil samples; therefore, the results are acceptable. Both SVOA and Pest/PCB samples were extracted within the fourteen (14) days holding time for soil samples and the extracts were then promptly analyzed; therefore, the results are acceptable.

The reviewer's narrative and data qualifiers are noted in the following pages.

Reviewed by: **M. Cecilia Luckett** MCL **Lockheed/ESAT**
Date: **May 21, 1993**

NARRATIVE

CONTRACTOR: COMPUCHEM, RTP
CASE: 19635 (2)
SITE: TREASURE ISLAND MAN (OH)

Below is a summary of the out-of-control audits and the possible effect on the data for this case.

1. HOLDING TIME.

CompuChem Laboratory of Research Triangle Park, North Carolina received nine (9) soil samples on March 24 and 25, 1993 in good condition per the CLP SOW OLM01.8 (8/91). All nine soil samples were analyzed for low level organics.

All VOA analyses were completed within the fourteen (14) days holding time for soil samples; therefore, the results are acceptable.

All SVOA and Pest/PCB extractions were completed within the fourteen (14) days holding time for soil samples and the extracts were then promptly analyzed; therefore, the results are acceptable.

2. GC/MS TUNING AND GC PERFORMANCE.

GC/MS tuning complied with the mass list and ion abundance criteria for BFB and DFTPP. All samples were analyzed within the twelve (12) hour periods for BFB and DFTPP instrument performance checks as well; therefore, the results are acceptable.

The DDT and Endrin degradation check using the PEM of both the DB-608 and RTX-1701 columns were < 20.0% and the combined breakdown was < 30.0%; therefore, the results are acceptable.

The Florisil Cartridge Check and the GPC Calibration Check met the required QC criteria and results are therefore acceptable.

Reviewed by: M. Cecilia Luckett MCL Lockheed/ESAT
Date: May 21, 1993

3. CALIBRATION.

Initial and continuing calibration of VOA and SVOA standards were evaluated for the Target Compounds List (TCLs) and outliers were recorded on the outlier forms included as a part of this narrative.

The retention time window and % RSD for the initial and continuing calibration standards for Pest/PCB analysis met the required QC limits.

4. METHOD BLANK.

VBLKW2, VBLKY3 and VBLKB5 are the low level soil method blanks. All three blanks reported two TCLs, Methylene Chloride and Acetone, common laboratory contaminants, and no TICs. The presence of Methylene Chloride or Acetone in any of the samples associated with VBLKW2, VBLKY3 or VBLKB5 should be flagged as non-detected (U) when the concentration is less than (<) ten (10) times the blank resutls. Please refer to Form IV-VOA (VBLKW2, VBLKY3, VBLK~~WU~~B5 for a list of associated samples.

SBLK27 and SBLK98 are the low level soil method blanks. SBLK98 reported one TCL, bis(2-Ethylhexyl)Phthalate, a common laboratory contaminant, and four (4) TICs. The presence of bis(2-Ethylhexyl)Phthalate in any of the samples associated with SBLK98 is flagged as non-detected (U) when the concentration is less than (<) ten (10) times the blank results. The presence of any of the TICs in any of the samples associated with SBLK98 should be flagged as non-detected (U) when the concentration is less than (<) five (5) times the blank results. Please refer to Form IV-SVOA (SBLK98) for a list of associated samples. SBLK27 reported one TCL, Butlybenzylphthalate, a common laboratory contaminant, and four (4) TICs. The presence of Butylbenzylphthtalate in any of the samples associated with SBLK27 is flagged as non-detected (U) when the concentration is less than (<) ten (10) times the blank results. The presence of any of the TICs in any of the samples associated with SBLK27 is flagged as non-detected (U) when the concentration is less than (<) five (5) times the blank results. Please refer to Form IV-SVOA (SBLK27) for a list of associated samples.

4. METHOD BLANK. (continued)

For the Pest/PCB fraction, there were four (4) instrument blanks for both column DB-608 and column RTX-1701. PBLK97 is the low level soil method blank. There were no target Pesticides or Aroclor/Toxaphene above the CRQL present in PBLK97; therefore, the results are acceptable.

5. SURROGATE (SYSTEM MONITORING COMPOUND) RECOVERY.

The low level system monitoring compound recoveries for the VOA fraction and the surrogate recoveries for the SVOA fraction were all within the required QC limits; therefore, the results are acceptable.

For the Pest/PCB fraction, the retention times of Tetrachloro-m-xylene (TCX) and Decachlorobiphenyl (DCB) were well within the required ± 0.05 and ± 0.10 minutes of the mean retention time determined from the initial calibration, respectively.

In the Pest/PCB fraction, ETF23, 28MS, 24, 28MSD, 25, 26, 28, 31 and ETF32 reported DCB1 high outside the required QC limits. In addition, ETF24 reported TCX1 and TCX2 low outside the required QC limits and ETF30 reported TCX1 low outside the required QC limits. Lastly, ETF31 reported 0% recovery for DCB2 diluted out and ETF25 reported DCB2 high outside the required QC limits. Positive results associated with samples ETF23, 28MS, 28MSD, 25, 26, 28 and ETF32 should be flagged as estimated (J); non-detected results do not need to be qualified. Positive results associated with ETF24 and ETF30 should be flagged as estimated (J) and non-detected results as estimated (UJ). Positive results associated with ETF31 should be flagged as estimated (J) and non-detected results as unusable (R).

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE.

Soil sample ETF28 was used as the low level spike for all three fractions: VOA, SVOA, and Pest/PCB.

The MS/MSD recoveries and %RPD values for the low level VOA, and Pest/PCB fractions were well within the required QC limits; therefore, the results are acceptable.

Reviewed by: M. Cecilia Luckett MCL **Lockheed/ESAT**
Date: May 21, 1993

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE.
(continued)

In the SVOA fraction, ETF28MSD reported % recoveries for 1,2,4-Trichlorobenzene, 4-Chloro-3-methylphenol, 2,4-Dinitrotoluene and Pentachlorphenol high outside the required QC limits. In addition, the % RPD values for 1,2,4-Trichlorobenzene, 4-Chloro-3-methylphenol and Acenaphthene were reported high outside the required QC limits. The presence of Pentachlorophenol, Acenaphthene, 1,2,4-Trichlorobenzene or 4-Chloro-3-methylphenol in the unspiked sample should be flagged as estimated (J) and non-detected results as estimated (UJ). No qualification is required for 2,4-Dinitrotoluene because the % recovery was less than 100%.

7. FIELD BLANK AND FIELD DUPLICATE.

None of the samples in this case were identified as field blank or field duplicate.

8. INTERNAL STANDARDS.

The internal standards retention times and area counts for the VOA fraction were all well within the required QC limits; therefore, the results are acceptable.

In the SVOA fraction, samples ETF26 and ETF26RE reported IS5 (CRY) = Chrysene-d12 and IS6 (PRY) = Perylene-d12 low outside the required QC limits. Compounds associated with these internal standards in the above noted samples should be flagged as estimated (J) and non-detected results as estimated (UJ). Please refer to Table 4 for a list of affected compounds.

9. COMPOUND IDENTIFICATION.

Target compounds and TICs were identified by "best fit" library search method.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS.

VOA, SVOA, and Pest/PCB Target Compounds (TCLs) and Tentatively Identified Compounds (TICs) were properly quantitated; therefore, the results are acceptable.

Reviewed by: M. Cecilia Luckett MCL **Lockheed/ESAT**
Date: May 21, 1993

11. SYSTEM PERFORMANCE.

GC/MS baseline indicated acceptable performance.

GC baseline counts indicated acceptable performance.

12. OVERALL CASE ASSESSMENT.

The table below summarizes the number of target compounds outside the CRQL and the number of tentatively identified compounds associated with these samples. In the SVOA fraction, samples ETF23 and 24 reported concentration values for Fluoranthene, Pyrene, Benzo(a)Anthracene, Chrysene, Benzo(b)Fluoranthene and Benzo(k)Fluoranthene which exceeded the calibration range. Sample ETF24 also reported concentration values for Phenanthrene, Benzo(a)Pyrene and Indeno(1,2,3-cd)Pyrene which exceeded the calibration range. Accordingly, the results from the diluted reanalyses will be the results used to validated the data.

Sample ID #	# of Hits				
	VOA		SVOA		Pest/PCB
	TCL	TIC	TCL	TIC	TCL
ETF23	1	0	23	21	11
ETF23DL	-	-	17	15	-
ETF24	1	0	23	21	9
ETF24DL	-	-	15	4	-
ETF25	1	0	16	20	9
ETF26	1	1	17	21	10
ETF26RE	-	-	17	21	-
ETF28	0	0	20	22	5
ETF29	1	0	15	23	6
ETF30	0	0	10	22	5
ETF31	0	0	10	21	4
ETF32	3	0	18	22	8

Reviewed by: M. Cecilia Luckett MCL **Lockheed/ESAT**
Date: May 21, 1993

CALIBRATION OUTLIER
VOLATILE TCL COMPOUNDS

CASE\SAS#: 19635(2)

CONTRACTOR: CompuChem, RTP

Instrument#		Initial Cal			Contin. Cal.			Contin. Cal.			Contin. Cal			Contin. Cal		
Date/Time:		3-24-93/1357			3-25-93/2142			3-29-93/1401			3-31-93/0257					
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0.01	0.971			0.527	45.7	J	0.591	39.1	J	0.786					
Bromomethane	0.10															
Vinyl chloride	0.10	1.030			0.747	27.5	J	0.789			0.857					
Chloroethane	0.01															
Methylene chloride	0.01	2.082	47.5	J	3.952	+89.8	J	1.627			1.733					
Acetone	0.01	0.376	37.2	J	0.383			0.414			0.481	+27.9	J			
Carbon disulfide	0.01															
1,1-Dichloroethene	0.10															
1,1-Dichloroethane	0.20															
1,2-Dichloroethene (total)																
Chloroform	0.20															
1,2-Dichloroethane	0.10															
2-Butanone	0.01	0.701	38.1	J	0.687			0.675			0.814					
1,1,1-Trichloroethane	0.10															
Carbon tetrachloride	0.10															
Bromodichloromethane	0.20															
1,2-Dichloropropene																
cis-1,3-Dichloropropene	0.20															
Trichloroethene	0.30															
Dibromochloromethane	0.10															
1,1,2-Trichloroethane	0.10															
Benzene	0.50															
trans-1,3-Dichloropropene	0.10															
Bromoform	0.10	0.290			0.309			0.370	+27.6	J	0.397	+36.9	J			
4-Methyl-2-pentanone	0.01															
2-Hexanone	0.01	0.441	56.6	J	0.419			0.331			0.426					
Tetrachloroethene	0.20															
1,1,2,2-Tetrachloroethane	0.50															
Toluene	0.40															
Chlorobenzene	0.50															
Ethylbenzene	0.10															
Styrene	0.30															
Xylene (total)	0.30															
Toluene-d8																
Bromofluorobenzene																
1,2-Dichloroethane-d4																

Samples affected:

VBLKW2	VBLKY3	VBLKB5
ETF23	ETF28MS	ETF28
24	28MSD	
25	↓ 32	
26		
29		
30		
↓ 31		

Reviewer's Init/Date: CL/5-20-93

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMVOLATILE TCL COMPOUNDS
(Page 1)

CASE\SAS#: 19635(2) CONTRACTOR: CompuChem, RTP

Instrument: OWA02		Initial Cal			Contin. Cal			Contin. Cal			Contin. Cal			Contin. Cal		
Date/Time:		12-10-92/1351			4-6-93/1941			4-7-93/1448			4-8-93/1925			4-12-93/1638		
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0.80															
bis(chloroethyl) Ether	0.70	1.351			1.451			1.492			1.610			1.752	-29.7	J
2-Chlorophenol	0.70															
1,3-Dichlorobenzene																
1,4-Dichlorobenzene																
1,2-Dichlorobenzene																
2-Methylphenol	0.70															
2,2'-Oxybis(1-chl-propane)	0.01	1.193			1.260			1.868	-56.6	J	1.797	-50.6	J	1.906	-59.8	J
4-Methylphenol	0.60															
N-nitroso-di-n-propylamine	0.50															
Hexachloroethane	0.30	0.735			0.812			0.925	-25.8	J	0.911			0.804		
Nitrobenzene	0.20															
Isophorone	0.40															
2-Nitrophenol	0.10															
2,4-Dimethylphenol	0.20															
bis-(2-chloroethoxyl)methane	0.30															
2,4-Dichlorophenol	0.20															
1,2,4-Trichlorobenzene	0.20															
Naphthalene	0.70															
4-Chloroaniline	0.01															
Hexachlorobutadiene	0.01	0.183			0.225			0.192			0.231	-26.2	J	0.147		
4-Chloro-3-methylphenol	0.20															
2-Methylnaphthalene	0.40															
Hexachlorocyclopentadiene	0.01															
2,4,6-Trichlorophenol	0.20															
2,4,5-Trichlorophenol	0.20															
2-Chloronaphthalene	0.80															
2-Nitroaniline	0.01	0.463			0.393			0.594	-28.3	J	0.376			0.452		
Dimethyl phthlate	0.01															
Acenaphthylene	1.30															
2,6-Dinitrotoluene	0.20															
3-Nitroaniline	0.01	0.240			0.246			0.274			0.266			0.314	-30.8	J
Acenaphthene	0.30															
2,4-Dinitrophenol	0.01															
4-Nitrophenol	0.01	0.282			0.381	-35.1	J	0.369	-30.8	J	0.306					
Dibenzofuran	0.80															
2,4-Dinitrotoluene	0.20															
Affected samples:					SBLK98			ETF23			ETF24DL			ETF25		
								24			" 26RE			" 23DL		
								↓ 26								

Reviewer's Init/Date: CL/5-20-93

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# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMVOLATILE TCL COMPOUNDS
(Page 2)

CASE\SAS#: 19635(2) CONTRACTOR: CompuChem, RTP

Instrument# OWA02		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal		
Date/Time:		12-10-92/1351			4-6-93/1941			4-7-93/1448			4-8-93/1925			4-12-93/1638		
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0.01															
4-Chlorophenyl-phenylether	0.40															
Fluorene	0.90															
4-Nitroaniline	0.01															
4,6-Dinitro-2-methylphenol	0.01															
N-nitrosodiphenylamine	0.01	0.397			0.600	-51.1	J	0.565	-42.3	J	0.599	-50.9	J	0.643	-62.0	J
4-Bromophenyl-phenylether	0.10															
Hexachlorobenzene	0.10															
Pentachlorophenol	0.05	0.155			0.159			0.140			0.215	-38.7	J	0.129		
Phenanthrene	0.70															
Anthracene	0.70															
Carbazole		0.730			0.927	-27.0	J	0.962	-31.8	J	0.792	-		0.931	-27.5	J
Di-n-butylphthalate	0.01															
Fluoranthene	0.60															
Pyrene	0.60															
Butylbenzylphthalate	0.01	0.725			0.887			1.047	-44.4	J	0.867			1.008	-39.0	J
3,3'-Dichlorobenzidine	0.01	0.172			0.320	-86.0	J	0.329	-91.3	J	0.283	-64.5	J	0.313	-82.0	J
Benzo(a)anthracene	0.80	1.158			1.278			1.305			1.506	-30.0	J	1.313		
Chrysene	0.70															
bis(2-Ethylhexyl)phthalate	0.01	0.980			1.232	-25.7	J	1.426	-45.5	J	0.993			1.308	-33.5	J
Di-n-octyl phthalate	0.01															
Benzo(b)fluoranthene	0.70															
Benzo(k)fpuoranthene	0.70	1.184			0.840	29.0	J	1.013			0.999			1.130		
Benzo(a)pyrene	0.70															
Indeno(1,2,3-cd)pyrene	0.50	0.841			0.792			1.054	-25.3	J	0.784			0.697		
Dibenz(a,h)anthrancene	0.40															
Benzo(g,h,i)perylene	0.50															
Nitrobenzene-d5	0.01	0.574			0.461			0.544			0.524			0.416	27.5	J
2-Fluorobiphenyl	0.70															
Terphenyl-d14	0.50															
Phenol-d5	0.80															
2-Fluorophenol	0.60															
2,4,6-Tribromophenol	0.01	0.198			0.202			0.179			0.197			0.138	30.3	J
2-Chlorophenol-d4																
1,2-Dichlorobenzene-d4																

Reviewer's Init/Date: CL/5-20-93

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\# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMVOLATILE TCL COMPOUNDS
(Page 1)

CASE\SAS#: 19635(2)

CONTRACTOR: CompuChem, RTP

Instrument: OWA07		Initial Cal			Contin. Cal			Contin. Cal			Contin. Cal.			Contin. Cal		
Date/Time:		3-9-93/2311			4-8-93/1309			4-8-93/2352								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0.80															
bis(chloroethyl) Ether	0.70															
2-Chlorophenol	0.70															
1,3-Dichlorobenzene																
1,4-Dichlorobenzene																
1,2-Dichlorobenzene																
2-Methylphenol	0.70															
2,2'-Oxybis(1-chl-propane)	0.01															
4-Methylphenol	0.60															
N-nitroso-di-n-propylamine	0.50															
Hexachloroethane	0.30															
Nitrobenzene	0.20															
Isophorone	0.40															
2-Nitrophenol	0.10															
2,4-Dimethylphenol	0.20															
bis-(2-chloroethoxyl)methane	0.30															
2,4-Dichlorophenol	0.20															
1,2,4-Trichlorobenzene	0.20															
Naphthalene	0.70															
4-Chloroaniline	0.01															
Hexachlorobutadiene	0.01															
4-Chloro-3-methylphenol	0.20															
2-Methylnaphthalene	0.40															
Hexachlorocyclopentadiene	0.01															
2,4,6-Trichlorophenol	0.20															
2,4,5-Trichlorophenol	0.20															
2-Chloronaphthalene	0.80															
2-Nitroaniline	0.01															
Dimethyl phthlate	0.01															
Acenaphthylene	1.30															
2,6-Dinitrotoluene	0.20															
3-Nitroaniline	0.01															
Acenaphthene	0.30															
2,4-Dinitrophenol	0.01															
4-Nitrophenol	0.01															
Dibenzofuran	0.80															
2,4-Dinitrotoluene	0.20															

Affected samples:

SBLK27
ETF28
28MS
29
30
31
32
28MSD

Reviewer's Init/Date: CL/5-20-93

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\# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMVOLATILE TCL COMPOUNDS
(Page 2)

CASE\SAS#: 19635(2)

CONTRACTOR: CompuChem, RTP

Instrument# DWA07		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		3-4-93/2311			4-8-93/1309			4-8-93/2352								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0.01															
4-Chlorophenyl-phenylether	0.40															
Fluorene	0.90															
4-Nitroaniline	0.01															
4,6-Dinitro-2-methylphenol	0.01															
N-nitrosodiphenylamine	0.01															
4-Bromophenyl-phenylether	0.10															
Hexachlorobenzene	0.10															
Pentachlorophenol	0.05															
Phenanthrene	0.70															
Anthracene	0.70															
Carbazole																
Di-n-butylphthalate	0.01															
Fluoranthene	0.60															
Pyrene	0.60															
Butylbenzylphthalate	0.01	0.854			1.047	-28.4	J	1.202	-40.8	J						
3,3'-Dichlorobenzidine	0.01															
Benzo(a)anthracene	0.80															
Chrysene	0.70															
bis(2-Ethylhexyl)phthalate	0.01	1.051			1.446	-37.6	J	1.535	-46.0	J						
Di-n-octyl phthalate	0.01	1.825			2.613	-43.2	J	2.869	-57.2	J						
Benzo(b)fluoranthene	0.70															
Benzo(k)fpuoranthene	0.70															
Benzo(a)pyrene	0.70															
Indeno(1,2,3-cd)pyrene	0.50															
Dibenz(a,h)anthrancene	0.40															
Benzo(g,h,i)perylene	0.50															
Nitrobenzene-d5	0.01															
2-Fluorobiphenyl	0.70															
Terphenyl-d14	0.50															
Phenol-d5	0.80															
2-Fluorophenol	0.60															
2,4,6-Tribromophenol	0.01															
2-Chlorophenol-d4																
1,2-Dichlorobenzene-d4																

Reviewer's Init/Date: CL/5-20-93

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\# Minimum Relative Response Factor

CALIBRATION OUTLIERS
PEST/PCB TCL COMPOUNDS

CASE\SAS#: 19635(2) CONTRACTOR: CompuChem, RTP

Column: DB-608

Instrument#: VARIANC	Init. Cal.		Cont. Cal.		Cont. Cal.		Cont.Cal	
Date/Time	3-23-93/1215		3-23-93/1131		3-25-93/0906		4-8-93/0854	
	%RSD	*	%RPD	*	%RPD	*	%RPD	*
Alpha-BHC								
Beta-BHC								
Delta-BHC								
Gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
Endrin aldehyde								
Alpha chlordane								
Gamma chlordane								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254								
Aroclor-1260								
Toxaphene								
Affected samples:							PBLK97	
							ETF29	
							30	
							23	
							24	
							32	
							25	
							26	
							31	
							28 MSD	
							28 MS	
							28	

Pest/PCB

Reviewer's Initial/Date CL/5-20-93

3/90 Rev

* These flags should be applied to the analytes on the Sample Data Sheets.

CALIBRATION OUTLIERS
PEST/PCB TCL COMPOUNDS

CASE\SAS#: 19635(2) **CONTRACTOR:** CompuChem, RTP

Column: DB-608

Instrument#: VARIAN 08	Init. Cal.		Cont. Cal.		Cont. Cal.		Cont.Cal	
Date/Time	3-23-93/1215		4-9-93/0420					
	%RSD	*	%RPD	*	%RPD	*	%RPD	*
Alpha-BHC								
Beta-BHC								
Delta-BHC								
Gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
Endrin aldehyde								
Alpha chlordane								
Gamma chlordane								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254								
Aroclor-1260								
Toxaphene								

Affected samples:

Pest/PCB

Reviewer's Initial/Date CL/5-20-93

3/90 Rev

* These flags should be applied to the analytes on the Sample Data Sheets.

CALIBRATION OUTLIERS
PEST/PCB TCL COMPOUNDS

CASE\SAS#: 19635(2) CONTRACTOR: CompuChem, RTP

Column: RTX-1701

Instrument#: VARIAN 09	Init. Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal	
Date/Time	3/23-93	1215	3-23-93	1131	3-25-93	0906	4-8-93	0854
	%RSD	*	%RPD	*	%RPD	*	%RPD	*
Alpha-BHC								
Beta-BHC								
Delta-BHC								
Gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
Endrin aldehyde								
Alpha chlordane								
Gamma chlordane								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254								
Aroclor-1260								
Toxaphene								
Affected samples:							PBLK97	
							ETF29	
							30	
							23	
							24	
							32	
							25	
							26	
							31	
							28 MSD	
							28 MS	
							28	

Pest/PCB

Reviewer's Initial/Date CL/5-20-93

3/90 Rev

* These flags should be applied to the analytes on the Sample Data Sheets.

CALIBRATION OUTLIERS
PEST/PCB TCL COMPOUNDS

CASE\SAS#: 19635(2)

CONTRACTOR: CompuChem, RTP

Column: RTX-1701

Instrument#: VARIAN 09	Init. Cal.		Cont. Cal.		Cont. Cal.		Cont.Cal	
Date/Time	3-23-93/ 1215		4-9-93/0420					
	%RSD	*	%RPD	*	%RPD	*	%RPD	*
Alpha-BHC								
Beta-BHC								
Delta-BHC								
Gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
Endrin aldehyde								
Alpha chlordane								
Gamma chlordane								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254								
Aroclor-1260								
Toxaphene								

Affected samples:

Pest/PCB

Reviewer's Initial/Date CL/5-20-93

3/90 Rev

* These flags should be applied to the analytes on the Sample Data Sheets.

DATA REPORTING QUALIFIERS
(page 1)

For reporting results to EPA, the following result qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

VALUE-if the results is a value greater than or equal to the Contract Required Quantitation Limit (CRQL), report the value.

U - Indicates compound was analyzed for but not detected. The sample Quantitation Limit must be corrected for dilution and for percent moisture. For example, 10 U for phenol in water if thee sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must also be adjusted for percent moisture. For example, if the sample had 24% moisture and a 1 to 10 dilution factor, the Sample Quantitation Limit for phenol (330 U) would be corrected to:

$$\frac{(330\ U) \times df}{D} \qquad \text{where } D = \frac{100 - \%\ moisture}{100}$$

and df = dilution factor

$$\text{at } 24\%\ \text{moisture, } D = \frac{100 - 24}{100} = 0.76$$

$$\frac{(330\ U) \times 10}{.76} = 4300\ U \text{ rounded to the appropriate number of significant figures}$$

For soil samples subjected to GPC clean-up procedures, the extract must be concentrated to 0.5 ml, and the sensitivity of the analysis is not compromised by the cleanup procedures. Therefore, the CRQL values will apply to all samples, regardless of cleanup. However, if a sample extract cannot be concentrated to the protocol-specified volume, this fact be accounted for in reporting the Sample Quantitation Limit.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit bur greater than zero. For example, if the sample quantitation limit is 10 ug/L, but a concentration of 3 ug/L is calculated, report it is as 3J. The Sample Quantitation Limit must be adjusted for dilution as discussed for the U flag. The J flag is also applied to pesticide/Aroclor results where the pesticide/Aroclor is confirmed to be present but the concentration is less than the CRQL.

N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds. Where the identification is based on a mass spectral library search. It is applied to all TIC results.

DATA REPORTING QUALIFIERS
(page 2)

P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".

C - This flag applies to pesticide results where identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but unsuccessful, do not apply this flag, instead use a laboratory-defined, discussed below.

B - This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified TCL compound.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for the specific analysis. This flag will not apply to pesticide/PCBs analyzed by GC/MS methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate Form I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample and all concentration values reported on that Form I are flagged with the "D" flag. This flag alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

X - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the Sample Data Summary Package and the SDG Narrative. If more than one flag is required, use "Y" and "Z", as needed. If more than five qualifiers are required for a sample result, use the "X" flag to combine several flags, as needed. For instance, the "X" flag might combine the "A", "B" and "D" flags for some sample. The laboratory-defined are limited to letters "X", "Y" and "Z".

TABLE 4

VOLATILE INTERNAL STANDARDS WITH CORRESPONING TCL ANALYTES ASSIGNED FOR QUANTITATION

Bromochloromathane	1,4-Difluorobenzene	Chlorobenzene-d5
Chloromethane	2-Butanone	2-Hexanone
Bromomethane	1,1,1-Trichloroethane	4-Methyl-2-pentanone
Vinyl chloride	Carbon tetrachloride	Tetrachloroethene
Chloroethane	Vinyl acetate	1,1,2,2-Tetrachloroethane
Methylene chloride	Bromodichloromethane	Toluene
Acetone	1,2-Dichloropropane	Chlorobenzene
Carbon disulfide	trans-1,3-Dichloropropane	Ethylbenzene
1,1-Dichloroethene	Trichloroethene	Styrene
1,1-Dichloroethane	Dibromochloromethane	Xylene (total)
1,2-Dichloroethene (total)	1,1,2-Trichloroethane	Bromofluorobenzene (surr)
Chloroform	Benzene	Toluene-d8 (surr)
1,2-Dichloroethane	cis-1,3-Dichloropropene	
1,2-Dichloroethane-d4 (surr)	Bromoform	

SEMIVOLATILE INTERNAL STANDARDS WITH CORRESPONING TCL ANALYTES ASSIGNED FOR QUANTITATION

1,4-Dichlorobenzene-d4	Naphthalene-d8	Acenaphthene-d10	Phenanthrene-d10	Chrysene-d12	Perylene-d12
Phenol	Nitrobenzene	Hexachlorocyclopentadiene	4,6-Dinitro-2-methylphenol	Pyrene	Di-n-octyl phthalate
bis(2-Chloroethyl)ether	Isophorone	2,4,6-Trichlorophenol	N-nitroso-di-phenylamine	Butylbenzyl phthalate	Benzo(b)fluoranthene
2-Chlorophenol	2-Nitrophenol	2,4,5-Trichlorophenol	1,2-Diphenylhydrazine	3,3'-Dichlorobenzidine	Benzo(k)fluoranthene
1,3-Dichlorobenzene	2,4-Dimethylphenol	2-Chloronaphthalene	4-Bromophenyl phenyl ether	Benz(a)anthracene	Benzo(a)pyrene
1,4-Dichlorobenzene	Benzoic acid	2-Nitroaniline	Hexachlorobenzene	bis(2-Ethylhexyl)phthalate	Indeno(1,2,3-cd)pyrene
Benzyl alcohol	bis(2-Chloroethoxy)methane	Dimethyl phthalate	Pentachlorophenol	Chrysene	Dibenz(a,h)anthracene
1,2-Dichlorobenzene	2,4-Dichlorophenol	Acenaphthylene	Phenanthrene	Terphenyl-d14 (surr)	Benzo(g,h,i)perylene
2-Methylphenol	1,2,4-Trichlorobenzene	3-Nitroaniline	Anthracene		
bis(2-Chloroisopropyl)ether	4-Chloroaniline	Acenaphthene	Di-n-butyl phthalate		
4-Methylphenol	Hexachlorobutadiene	2,4-Dinitrophenol	Fluoranthene		
N-nitroso-di-n-propylamine	4-Chloro-3-methylphenol	4-Nitrophenol			
Hexachloroethane	2-Methylnaphthalene	Dibenzofuran			
2-Fluorophenol (surr)	Nitrobenzene-d5 (surr)	2,4-Dinitrotoluene			
Phenol-d6 (surr)		2,6-Dinitrotoluene			
		Diethyl phthalate			
		4-Chlorophenyl phenyl ether			
		Fluorene			
		4-Nitroaniline			
		2-Fluorobiphenyl (surr)			
		2,4,6-Tribromophenol (surr)			

EPA United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SAS No. (if applicable)

Case No. 19635

1. Sample Description (Enter in Column A)	2. Preservative (Enter in Column D)	3. Region No.	Sampling Co.	5. Date Shipped	Carrier	7. Date Received -- Received by
1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)	1. HCl 2. HNO3 3. NaHSO4 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved	5	PRC/EMI	3-23-93	FEDERAL EXPRESS	3-24-93 Joan Purdie
		Sampler (Name): K. Gorczyk		Airbill Number: 603064 4196		Laboratory Contract Number: 68D00159
		Sampler Signature: [signature]		6. Ship To: COMPUCHEM LABORATORIES 3308 CHAPEL HILL/NELSON HWY. RESEARCH TRIANGLE PARK, NC 27709		Unit Price: 697.00
		4. Type of Activity: Lead: SF [X], PRP [ ], ST [ ], FED [ ]; Pre-Remedial: PA [ ], SSI [X], LSI [ ]; Remedial: RIFS [ ], RD [ ], RA [ ], O&M [ ], NPLD [ ]; Removal: CLEM [ ], REMA [ ], REM [ ], OIL [ ], UST [ ]		ATTN: TERRY EVANS		8. Transfer to: / Date Received: / Received by: / Contract Number: / Price:

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec't	L High Conc. Phases (Check below): Solids	Water -- Mis Liq.	Non Water -- Mis Liq.
ETF 23	5	L	G	6	X				16933-16934	TI-SD-01	3/23/93 1330		MERS88				
ETF 23	5	L	G	6		X	X		16932	TI-SD-01	3/23/93 1330		MERS88				
ETF 24	5	L	G	6	X				16958-16959	TI-SD-02	3/23/93 1230		MERS89				
ETF 24	5	L	G	6	X	X	X		16960	TI-SD-02	3/23/93 1230		MERS89				
ETF 25	5	L	G	6	X				16886-16887	TI-SD-02D	3/23/93 1230		MERS 90				
ETF 25	5	L	G	6		X	X		16888	TI-SD-02D	3/23/93 1230		MERS 90				
ETF 26	5	L	G	6	X				16890-16891	TI-SD-04	3/23/93 1430		MERS 91				
ETF 26	5	L	G	6		X	X		16892	TI-SD-04	3/23/93 1430		MERS 91				

Shipment for Case complete? (Y/N)	Page 1 of 1	Sample used for a spike and/or duplicate	Additional Sampler Signatures	Chain of Custody Seal Number
				140857, 140858

541487, 495, 498, 499

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	3/23/93 1700	Kristine C. Kuck	Kristine C. Kuck	3/23/93 1800	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Joan Purdie	Date / Time 3-24-93 0830	Remarks Is custody seal intact? Y/N/none	

RECEIVED IN GOOD CONDITION
[initials] 3-24-93

Split Samples [ ] Accepted [ ] Declined (Signature)

EPA Form 8110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

DISTRIBUTION:
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SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

O340256

SAMPLE DATA PACKAGE 19635 ETF 23

13

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable)

Case No. 19635

1. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

2. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NaHSO4
4. H_2SO_4
5. Other (Specify)
6. Ice only
N. Not preserved

3. Region No.: 5
Sampling Co.: PRC-EMI
Sampler (Name): Trisha Miller
Sampler Signature: Trisha Miller

4. Type of Activity: Lead / Pre-Remedial / Remedial / Removal
SF [X] PRP [ ] ST [ ] FED [ ]
PA [ ] SSI [X] LSI [ ]
RIFS [ ] RD [ ] RA [ ] O&M [ ] NPLD [ ]
CLEM [ ] REMA [ ] REM [ ] OIL [ ] UST [ ]

5. Date Shipped: 3/24/93
Carrier: FEDERAL EXPRESS
Airbill Number: 5899448251

6. Ship To: COMPUCHEM LABORATORIES
3308 CHAPEL HILL/NELSON HWY
RESEARCH TRIANGLE PARK, NC 27709
ATTN: TERRY EVANS

7. Date Received -- Received by: 3-25-93 Joan Purdie
Laboratory Contract Number: 68D00159
Unit Price: 697.00

8. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis VOA	BNA	Pest/PCB	High ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec't	L High Conc. Phases (Check below) Solids	Water - Mis Liq.	Non Water - Mis Liq.
ETF 28	5	L	G	6	X				16937-16938	TI-SD-03	3/24/93		MERS 99				
ETF 28	5	L	G	6		X	X		16939	TI-SD-03	3/24/93		MERS 99				
ETF 29	5	L	G	6	X				16900, 16972	TI-SD-05	3/24/93		MERS 94				
ETF 29	5	L	G	6		X	X		16973	TI-SD-05	3/24/93		MERS 94				
ETF 30	5	L	G	6	X				16975, 16979	TI-SD-06	3/24/93		MERS 95				
ETF 30	5	L	G	6		X	X		16978	TI-SD-06	3/24/93		MERS 95				
ETF 31	5	L	G	6	X				16987-16988	TI-SD-07	3/24/93		MERS 96				
ETF 31	5	L	G	6		X	X		16989	TI-SD-07	3/24/93		MERS 96				
ETF 32	5	L	G	6	X				16991-16992	TI-SD-08	3/24/93		MERS 97				
ETF 32	5	L	G	6		X	X		16993	TI-SD-08	3/24/93		MERS 97				

Shipment for Case complete? (Y/N): Y
Page 1 of 1
Sample used for a spike and/or duplicate: ETF 28
Additional Sampler Signatures:
Chain of Custody Seal Number: 140865, 140866

541817, 827, 828, 829, 830

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trisha Miller	3/24/93 1700	Kristine C. Kruk	Kristine C. Kruk	3/24/93 1800	

Received for Laboratory by: (Signature) Joan Purdie
Date / Time: 3-25-93 0830
Remarks: Is custody seal intact? (Y)/N/none
RECEIVED IN GOOD CONDITION 3-25-93

Split Samples: [ ] Accepted (Signature) [ ] Declined

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0340258

Org-2

COMPUCHEM LABORATORIES, INC. P.O. Box 12652 3308 Chapel Hill/Nelson Highway Research Triangle Park, NC 27709 (919) 549-8263

SDG NARRATIVE
CASE NUMBER 19635
SDG NUMBER ETF23
CONTRACT NUMBER 68D00159

SAMPLER IDENTIFICATIONS: ETF23, ETF24, ETF25, ETF26, ETF28, ETF29, ETF30, ETF31, ETF32

The nine (9.0) soil samples listed above were received intact, properly refrigerated, with proper documentation, in a sealed shipping container, on March 24, and 25, 1993. The samples were scheduled for the requested analyses of the volatile, semivolatile, and pesticide/PCB fractions. These samples were analyzed following the 3/90 Statement of Work (SOW) (document OLM01.8) protocol. The pH values of these soil samples ranged from 6.7 to 8.1, and the percent moisture values ranged from 36 to 61. This portion of the SDG narrative deals with the volatile and the pesticide/PCB fractions only.

All pertinent Quality Assurance notices are included in the narrative section, and all pertinent Laboratory notices for Case 19635, SDG EFT23 are included in the sample data sections.

VOLATILES

Analysis holding time requirements were met for all of these samples. The common laboratory solvents methylene chloride and/or acetone were identified above the contract required quantitation limit (CRQL) in samples ETF28, ETF29, ETF30, and ETF32. These solvents were also found in the associated method blanks. With one exception, there were no tentatively identified compounds (TICs) found in these samples. In sample ETF26, a single TIC was detected. This TIC was assessed as a laboratory artifact, and therefore may not be a sample constituent.

All of the system monitoring compounds met recovery criteria in the analyses of these samples. All of the internal standards met response and retention time criteria in the analyses of these samples. The associated method blanks met all quality control criteria. The method blanks contained levels of the common laboratory solvents methylene chloride and acetone, which were within allowable limits. There were no TICs detected in any of the three associated volatile method blanks. ETF28 was used as the original sample to prepare the duplicate matrix spikes as requested. The associated duplicate matrix spikes met all advisory accuracy and precision criteria.

PESTICIDES/PCB

Extraction and analysis holding time requirements were met for all of these samples. There were a number of single component,

chlordane, and polychlorinated biphenyl (PCB) TCL analytes confirmed by dual column analysis above the CRQL at varying concentrations in these samples. Due to the levels of TCL compounds 4,4'-DDD, 4,4'-DDT, and 4,4'-DDE found in samples ETF28, ETF30, and ETF31, these samples required GC/MS confirmation analyses.

Samples ETF28, ETF30, and ETF31 were initially analyzed at a 5:1 dilutions. In these analyses, the on-column concentrations of 4,4-DDE, 4,4'-DDD, and 4,4'-DDT fell in dilution criteria range (upper half of the instrument's calibration range). Therefore we have reported the sample without further analysis at a greater concentration.

Advisory surrogates tetrachloro-m-xylene (TCX) and/or decachlorobiphenyl (DCB) in samples ETF23, ETF24, ETF25, ETF26, ETF28, ETF30, ETF31, ETF32, ETF28 MS, and ETF28 MSD failed quality control criteria on the DB-608 and/or the RTX-1701 analytical columns. However, these recoveries were greater than our internal minimum acceptance criteria limit of twenty percent (20%), which indicates possible extraction problems. Therefore we have reported the data without further analysis. The remaining samples met all advisory surrogate recovery criteria. The associated method blank met all quality control criteria. There were no TCL compounds confirmed by dual column analysis in the method blank, PBLK97. ETF28 was used as the original sample to prepare the duplicate matrix spikes as requested. The associated duplicate matrix spikes met all advisory accuracy and precision criteria.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than conditions detailed above. Release of the data contained in the hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Cynthia E. Edwards 04/21/93

Cynthia E. Edwards
Final Technical Reviewer
April 21, 1993

COMPUCHEM LABORATORIES, INC. P.O. Box 12652 3308 Chapel Hill/Nelson Highway Research Triangle Park, NC 27709 (919) 549-8263

SDG NARRATIVE

Case # 19635
SDG # ETF23
Contract # 68D00159

Sample Identifications: ETF23, ETF24, ETF25, ETF28, ETF29, ETF30, ETF31, ETF32

This portion of the SDG narrative deals with the semivolatile fractions only. For the receiving information associated with these samples, please refer to the volatile SDG narrative.

All pertinent Quality Assurance notices are included in the narrative section, and all pertinent Laboratory notices for Case 19635, SDG ETF23 are included in the sample data sections.

SEMIVOLATILES:
Holding time requirements were met for the initial extractions of all of these samples. Surrogate recovery requirements were not met in the analyses of the initial extracts of ETF28, ETF29, ETF30, ETF31, and ETF32. The sample was re-extracted outside of holding times. The analysis of the second extract met all quality control criteria. We have reported only the analyses of the second extracts of ETF28, ETF29, ETF30, ETF31, and ETF32. The data from the analysis of the initial extract may be found in the Complete SDG File (CSF).

There were many polyaromatic hydrocarbon (PAH) Target Compound List (TCL) analytes identified above the Contract Required Quantitation Limit (CRQL) at varying concentrations in these samples. Tentatively Identified Compounds (TICs) were found in all of these samples. The majority of the TICs found in these samples could be characterized as unknown PAH's, unknown hydrocarbons, and unknowns.

The 'X' flag is used to denote indistinguishable coeluting isomers. We have provided an Extracted Ion Current Profile (EICP) for each pair of isomers flagged with an 'X' on the Form I.

In the initial undiluted analyses of ETF23 and ETF24, the amounts of benzo(a)anthracene, benzo(b)fluoranthene, and benzo(k)fluoranthene in ETF23; and benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, benzo(a)pyrene, phenanthrene, anthracene, fluoranthene, pyrene, and indeno(1,2,3-cd) pyrene in ETF24 exceeded the instrument's analytical range as defined by the highest concentration level of the Initial Calibration. The samples were reanalyzed at 3:1 and 10:1 dilutions respectively in order to bring the amounts into range. None of the analytes that were outside of the analytical range in the undiluted analysis of ETF24 were within the upper half of the analytical range in the 10:1 dilution of the sample. We have reported and billed for both analyses of ETF23 and ETF24.

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Due to the results of a screen of the sample, ETF25 was initially analyzed at a 5:1 dilution.

In the initial analysis of ETF24, the responses of internal standards d12-chrysene and d12-perylene failed quality control criteria. The sample was reinjected and the internal standards again failed response criteria. We have attributed the failing internal standard responses to the particular matrix of the sample. Therefore we have reported and billed for both analyses of ETF24.
All of the surrogates met recovery criteria in the analyses of these samples.

All of the internal standards in samples not previously discussed met response and retention time criteria.

The associated method blanks met all quality control criteria. The method blanks contained levels of phthalate esters within allowable limits. TICs were found in these method blanks.

With seven exceptions, the associated duplicate matrix spikes met all advisory accuracy and precision criteria. The recoveries of the spike compounds 1,2,4-trichlorobenzene, 4-chloro-3-methylphenol, 2,4-dinitrotoluene, and pentachlorophenol were flagged as outliers in the matrix spike duplicate. The Relative Percent Differences (RPDs) of 1,2,4-trichlorobenzene, 4-chloro-3-methylphenol, and acenaphthene were flagged as outliers in the comparison of the duplicate matrix spikes.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than conditions detailed above. Release of the data contained in the hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Dan Boone 4/22/93

Daniel E. Boone, Jr.
Technical Reviewer
April 22, 1993

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	ETF23	94	85	93	0	0
02	ETF24	97	95	95	0	0
03	ETF25	101	90	96	0	0
04	ETF26	96	87	98	0	0
05	ETF28	102	83	86	0	0
06	ETF29	99	88	95	0	0
07	ETF30	99	93	96	0	0
08	ETF31	116	102	105	0	0
09	ETF32	100	87	86	0	0
10	ETF28MS	111	91	88	0	0
11	ETF28MSD	97	85	82	0	0
12	VBLKW2	90	88	102	0	0
13	VBLKY3	94	93	98	0	0
14	VBLKB5	109	96	96	0	0

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(84-138)
SMC2 (BFB)	= Bromofluorobenzene	(59-113)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix Spike - EPA Sample No.: ETF28 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	98.00	0	79.22	81	59-172
Trichloroethene	98.00	0	86.39	88	62-137
Benzene	98.00	0	99.10	101	66-142
Toluene	98.00	0	96.43	98	59-139
Chlorobenzene	98.00	0	91.24	93	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	98.00	80.20	82	1	22	59-172
Trichloroethene	98.00	85.55	87	1	24	62-137
Benzene	98.00	91.65	94	7	21	66-142
Toluene	98.00	90.75	93	5	21	59-139
Chlorobenzene	98.00	89.65	91	2	21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: CLP,19635,ETF23,ETF28,LOW,SOIL,541817,VOLATILE,EPA,
CAP, GS930331C13,BF930331C13, , , ,

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKW2

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Lab File ID: GH041804C13 Lab Sample ID: VBLKW2

Date Analyzed: 03/26/93 Time Analyzed: 0031

GC Column: DB624 ID: 0.530(mm) Heated Purge: (Y/N) Y

Instrument ID: OWA13

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	ETF23	541487	GH041487C13	0310
02	ETF24	541495	GH041495C13	0350
03	ETF25	541498	GH041498C13	0440
04	ETF26	541499	GH041499C13	0528
05	ETF29	541827	GH041827C13	0558
06	ETF30	541828	GH041828C13	0638
07	ETF31	541829	GH041829C13	0711

COMMENTS: CLP , , , ,LOW, ,541804,VOLATILE,BLANK,
CAP, GT930325B13,BF930325B13, , , ,

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKY3

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Lab File ID: GH043041A13 Lab Sample ID: VBLKY3

Date Analyzed: 03/29/93 Time Analyzed: 1453

GC Column: DB624 ID: 0.530(mm) Heated Purge: (Y/N) Y

Instrument ID: OWA13

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	ETF32	541830	G2R41830B13	2044
02	ETF28MS	541488	G2R41488B13	1847
03	ETF28MSD	541489	G2R41489B13	1921

COMMENTS: CLP , , , ,LOW, ,543041,VOLATILE,BLANK,
CAP, GS930329A13,BF930329A13, , , ,

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKB5

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Lab File ID: GH043193C13 Lab Sample ID: VBLKB5

Date Analyzed: 03/31/93 Time Analyzed: 0819

GC Column: DB624 ID: 0.530(mm) Heated Purge: (Y/N) Y

Instrument ID: OWA13

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	ETF28	541817	G2R41817A13	1119

COMMENTS: CLP , , , ,LOW, ,543193,VOLATILE,BLANK,
CAP, GS930331C13,BF930331C13, , , ,

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKW2

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: VBLKW2

Sample wt/vol: 5.00 (g/mL) G Lab File ID: GH041804C13

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

% Moisture: not dec. ____ Date Analyzed: 03/26/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKW2

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: VBLKW2

Sample wt/vol: 5.00 (g/mL) G Lab File ID: GH041804C13

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

% Moisture: not dec. ____ Date Analyzed: 03/26/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKY3

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: VBLKY3

Sample wt/vol: 5.00 (g/mL) G Lab File ID: GH043041A13

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

% Moisture: not dec. ____ Date Analyzed: 03/29/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKY3

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: VBLKY3

Sample wt/vol: 5.00 (g/mL) G Lab File ID: GH043041A13

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

% Moisture: not dec. ____ Date Analyzed: 03/29/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKB5

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: VBLKB5

Sample wt/vol: 5.00 (g/mL) G Lab File ID: GH043193C13

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

% Moisture: not dec. ____ Date Analyzed: 03/31/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	21	
67-64-1	Acetone	5	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	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	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKB5

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: VBLKB5

Sample wt/vol: 5.00 (g/mL) G Lab File ID: GH043193C13

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

% Moisture: not dec. _____ Date Analyzed: 03/31/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF23

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541487

Sample wt/vol: 5.00 (g/mL) G Lab File ID: GH041487C13

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: not dec. 36 Date Analyzed: 03/26/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	16	U
74-83-9	Bromomethane	16	U
75-01-4	Vinyl Chloride	16	U
75-00-3	Chloroethane	16	U
75-09-2	Methylene Chloride	16 ~~13~~	BJU
67-64-1	Acetone	16 ~~10~~	BJU
75-15-0	Carbon Disulfide	16	U
75-35-4	1,1-Dichloroethene	16	U
75-34-3	1,1-Dichloroethane	16	U
540-59-0	1,2-Dichloroethene (total)	16	U
67-66-3	Chloroform	2	J
107-06-2	1,2-Dichloroethane	16	U
78-93-3	2-Butanone	16	U
71-55-6	1,1,1-Trichloroethane	16	U
56-23-5	Carbon Tetrachloride	16	U
75-27-4	Bromodichloromethane	16	U
78-87-5	1,2-Dichloropropane	16	U
10061-01-5	cis-1,3-Dichloropropene	16	U
79-01-6	Trichloroethene	16	U
124-48-1	Dibromochloromethane	16	U
79-00-5	1,1,2-Trichloroethane	16	U
71-43-2	Benzene	16	U
10061-02-6	Trans-1,3-Dichloropropene	16	U
75-25-2	Bromoform	16	U
108-10-1	4-Methyl-2-Pentanone	16	U
591-78-6	2-Hexanone	16	U
127-18-4	Tetrachloroethene	16	U
79-34-5	1,1,2,2-Tetrachloroethane	16	U
108-88-3	Toluene	16	U
108-90-7	Chlorobenzene	16	U
100-41-4	Ethylbenzene	16	U
100-42-5	Styrene	16	U
1330-20-7	Xylene (total)	16	U

CL
5-20-93

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF23

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541487

Sample wt/vol: 5.00 (g/mL) G Lab File ID: GH041487C13

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: not dec. 36 Date Analyzed: 03/26/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF24

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541495

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH041495C13

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: not dec. 39 Date Analyzed: 03/26/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	16	U
74-83-9	Bromomethane	16	U
75-01-4	Vinyl Chloride	16	U
75-00-3	Chloroethane	16	U
75-09-2	Methylene Chloride	16 ~~15~~	BJU
67-64-1	Acetone	16 ~~8~~	BJU
75-15-0	Carbon Disulfide	16	U
75-35-4	1,1-Dichloroethene	16	U
75-34-3	1,1-Dichloroethane	16	U
540-59-0	1,2-Dichloroethene (total)	16	U
67-66-3	Chloroform	3	J
107-06-2	1,2-Dichloroethane	16	U
78-93-3	2-Butanone	16	U
71-55-6	1,1,1-Trichloroethane	16	U
56-23-5	Carbon Tetrachloride	16	U
75-27-4	Bromodichloromethane	16	U
78-87-5	1,2-Dichloropropane	16	U
10061-01-5	cis-1,3-Dichloropropene	16	U
79-01-6	Trichloroethene	16	U
124-48-1	Dibromochloromethane	16	U
79-00-5	1,1,2-Trichloroethane	16	U
71-43-2	Benzene	16	U
10061-02-6	Trans-1,3-Dichloropropene	16	U
75-25-2	Bromoform	16	U
108-10-1	4-Methyl-2-Pentanone	16	U
591-78-6	2-Hexanone	16	U
127-18-4	Tetrachloroethene	16	U
79-34-5	1,1,2,2-Tetrachloroethane	16	U
108-88-3	Toluene	16	U
108-90-7	Chlorobenzene	16	U
100-41-4	Ethylbenzene	16	U
100-42-5	Styrene	16	U
1330-20-7	Xylene (total)	16	U

CL 5-20-93

FORM I VOA 3/90

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF24

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541495

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH041495C13

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: not dec. 39 Date Analyzed: 03/26/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF25

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541498

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH041498C13

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: not dec. 40 Date Analyzed: 03/26/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	17	U
74-83-9	Bromomethane	17	U
75-01-4	Vinyl Chloride	17	U
75-00-3	Chloroethane	17	U
75-09-2	Methylene Chloride	17 ~~16~~ ~~15~~	BJU
67-64-1	Acetone	17 ~~16~~ ~~9~~	BJU
75-15-0	Carbon Disulfide	17	U
75-35-4	1,1-Dichloroethene	17	U
75-34-3	1,1-Dichloroethane	17	U
540-59-0	1,2-Dichloroethene (total)	17	U
67-66-3	Chloroform	3	J
107-06-2	1,2-Dichloroethane	17	U
78-93-3	2-Butanone	17	U
71-55-6	1,1,1-Trichloroethane	17	U
56-23-5	Carbon Tetrachloride	17	U
75-27-4	Bromodichloromethane	17	U
78-87-5	1,2-Dichloropropane	17	U
10061-01-5	cis-1,3-Dichloropropene	17	U
79-01-6	Trichloroethene	17	U
124-48-1	Dibromochloromethane	17	U
79-00-5	1,1,2-Trichloroethane	17	U
71-43-2	Benzene	17	U
10061-02-6	Trans-1,3-Dichloropropene	17	U
75-25-2	Bromoform	17	U
108-10-1	4-Methyl-2-Pentanone	17	U
591-78-6	2-Hexanone	17	U
127-18-4	Tetrachloroethene	17	U
79-34-5	1,1,2,2-Tetrachloroethane	17	U
108-88-3	Toluene	17	U
108-90-7	Chlorobenzene	17	U
100-41-4	Ethylbenzene	17	U
100-42-5	Styrene	17	U
1330-20-7	Xylene (total)	17	U

CL 5-20-9

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF25

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541498

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH041498C13

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: not dec. 40 Date Analyzed: 03/26/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF26

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541499

Sample wt/vol: 5.00 (g/mL) G Lab File ID: GH041499C13

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: not dec. 54 Date Analyzed: 03/26/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	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	~~18~~ 22	BJU
67-64-1	Acetone	22	U
75-15-0	Carbon Disulfide	22	U
75-35-4	1,1-Dichloroethene	22	U
75-34-3	1,1-Dichloroethane	22	U
540-59-0	1,2-Dichloroethene (total)	22	U
67-66-3	Chloroform	3	J
107-06-2	1,2-Dichloroethane	22	U
78-93-3	2-Butanone	22	U
71-55-6	1,1,1-Trichloroethane	22	U
56-23-5	Carbon Tetrachloride	22	U
75-27-4	Bromodichloromethane	22	U
78-87-5	1,2-Dichloropropane	22	U
10061-01-5	cis-1,3-Dichloropropene	22	U
79-01-6	Trichloroethene	22	U
124-48-1	Dibromochloromethane	22	U
79-00-5	1,1,2-Trichloroethane	22	U
71-43-2	Benzene	22	U
10061-02-6	Trans-1,3-Dichloropropene	22	U
75-25-2	Bromoform	22	U
108-10-1	4-Methyl-2-Pentanone	22	U
591-78-6	2-Hexanone	22	U
127-18-4	Tetrachloroethene	22	U
79-34-5	1,1,2,2-Tetrachloroethane	22	U
108-88-3	Toluene	22	U
108-90-7	Chlorobenzene	22	U
100-41-4	Ethylbenzene	22	U
100-42-5	Styrene	22	U
1330-20-7	Xylene (total)	22	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF26

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541499

Sample wt/vol: 5.00 (g/mL) G Lab File ID: GH041499C13

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: not dec. 54 Date Analyzed: 03/26/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	LABORATORY ARTIFACT	0.60	4	JU

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF28

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541817

Sample wt/vol: 5.0 (g/mL) G Lab File ID: G2R41817A13

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: not dec. 49 Date Analyzed: 03/31/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	20	U
74-83-9	Bromomethane	20	U
75-01-4	Vinyl Chloride	20	U
75-00-3	Chloroethane	20	U
75-09-2	Methylene Chloride	75	BU
67-64-1	Acetone	21	BU
75-15-0	Carbon Disulfide	20	U
75-35-4	1,1-Dichloroethene	20	U
75-34-3	1,1-Dichloroethane	20	U
540-59-0	1,2-Dichloroethene (total)	20	U
67-66-3	Chloroform	20	U
107-06-2	1,2-Dichloroethane	20	U
78-93-3	2-Butanone	20	U
71-55-6	1,1,1-Trichloroethane	20	U
56-23-5	Carbon Tetrachloride	20	U
75-27-4	Bromodichloromethane	20	U
78-87-5	1,2-Dichloropropane	20	U
10061-01-5	cis-1,3-Dichloropropene	20	U
79-01-6	Trichloroethene	20	U
124-48-1	Dibromochloromethane	20	U
79-00-5	1,1,2-Trichloroethane	20	U
71-43-2	Benzene	20	U
10061-02-6	Trans-1,3-Dichloropropene	20	U
75-25-2	Bromoform	20	U
108-10-1	4-Methyl-2-Pentanone	20	U
591-78-6	2-Hexanone	20	U
127-18-4	Tetrachloroethene	20	U
79-34-5	1,1,2,2-Tetrachloroethane	20	U
108-88-3	Toluene	20	U
108-90-7	Chlorobenzene	20	U
100-41-4	Ethylbenzene	20	U
100-42-5	Styrene	20	U
1330-20-7	Xylene (total)	20	U

CL 5-20-93

FORM I VOA 3/90

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF28

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541817

Sample wt/vol: 5.0 (g/mL) G Lab File ID: G2R41817A13

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: not dec. 49 Date Analyzed: 03/31/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF29

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541827

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH041827C13

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: not dec. 61 Date Analyzed: 03/26/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	26	U
74-83-9	Bromomethane	26	U
75-01-4	Vinyl Chloride	26	U
75-00-3	Chloroethane	26	U
75-09-2	Methylene Chloride	~~26~~18	BJU
67-64-1	Acetone	34	BU
75-15-0	Carbon Disulfide	26	U
75-35-4	1,1-Dichloroethene	26	U
75-34-3	1,1-Dichloroethane	26	U
540-59-0	1,2-Dichloroethene (total)	26	U
67-66-3	Chloroform	3	J
107-06-2	1,2-Dichloroethane	26	U
78-93-3	2-Butanone	26	U
71-55-6	1,1,1-Trichloroethane	26	U
56-23-5	Carbon Tetrachloride	26	U
75-27-4	Bromodichloromethane	26	U
78-87-5	1,2-Dichloropropane	26	U
10061-01-5	cis-1,3-Dichloropropene	26	U
79-01-6	Trichloroethene	26	U
124-48-1	Dibromochloromethane	26	U
79-00-5	1,1,2-Trichloroethane	26	U
71-43-2	Benzene	26	U
10061-02-6	Trans-1,3-Dichloropropene	26	U
75-25-2	Bromoform	26	U
108-10-1	4-Methyl-2-Pentanone	26	U
591-78-6	2-Hexanone	26	U
127-18-4	Tetrachloroethene	26	U
79-34-5	1,1,2,2-Tetrachloroethane	26	U
108-88-3	Toluene	26	U
108-90-7	Chlorobenzene	26	U
100-41-4	Ethylbenzene	26	U
100-42-5	Styrene	26	U
1330-20-7	Xylene (total)	26	U

CL 5-20-93

FORM I VOA 3/90

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF29

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541827

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH041827C13

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: not dec. 61 Date Analyzed: 03/26/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF30

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541828

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH041828C13

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: not dec. 37 Date Analyzed: 03/26/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	16	U
74-83-9	Bromomethane	16	U
75-01-4	Vinyl Chloride	16	U
75-00-3	Chloroethane	16	U
75-09-2	Methylene Chloride	16	BU
67-64-1	Acetone	19	BU
75-15-0	Carbon Disulfide	16	U
75-35-4	1,1-Dichloroethene	16	U
75-34-3	1,1-Dichloroethane	16	U
540-59-0	1,2-Dichloroethene (total)	16	U
67-66-3	Chloroform	16	U
107-06-2	1,2-Dichloroethane	16	U
78-93-3	2-Butanone	16	U
71-55-6	1,1,1-Trichloroethane	16	U
56-23-5	Carbon Tetrachloride	16	U
75-27-4	Bromodichloromethane	16	U
78-87-5	1,2-Dichloropropane	16	U
10061-01-5	cis-1,3-Dichloropropene	16	U
79-01-6	Trichloroethene	16	U
124-48-1	Dibromochloromethane	16	U
79-00-5	1,1,2-Trichloroethane	16	U
71-43-2	Benzene	16	U
10061-02-6	Trans-1,3-Dichloropropene	16	U
75-25-2	Bromoform	16	U
108-10-1	4-Methyl-2-Pentanone	16	U
591-78-6	2-Hexanone	16	U
127-18-4	Tetrachloroethene	16	U
79-34-5	1,1,2,2-Tetrachloroethane	16	U
108-88-3	Toluene	16	U
108-90-7	Chlorobenzene	16	U
100-41-4	Ethylbenzene	16	U
100-42-5	Styrene	16	U
1330-20-7	Xylene (total)	16	U

CL 5-20-93

FORM I VOA 3/90

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF30

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541828

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH041828C13

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: not dec. 37 Date Analyzed: 03/26/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF31

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541829

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH041829C13

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: not dec. 41 Date Analyzed: 03/26/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	17	U
74-83-9	Bromomethane	17	U
75-01-4	Vinyl Chloride	17	U
75-00-3	Chloroethane	17	U
75-09-2	Methylene Chloride	17 ~~14~~	BJU
67-64-1	Acetone	17 ~~11~~	BJU
75-15-0	Carbon Disulfide	17	U
75-35-4	1,1-Dichloroethene	17	U
75-34-3	1,1-Dichloroethane	17	U
540-59-0	1,2-Dichloroethene (total)	17	U
67-66-3	Chloroform	17	U
107-06-2	1,2-Dichloroethane	17	U
78-93-3	2-Butanone	17	U
71-55-6	1,1,1-Trichloroethane	17	U
56-23-5	Carbon Tetrachloride	17	U
75-27-4	Bromodichloromethane	17	U
78-87-5	1,2-Dichloropropane	17	U
10061-01-5	cis-1,3-Dichloropropene	17	U
79-01-6	Trichloroethene	17	U
124-48-1	Dibromochloromethane	17	U
79-00-5	1,1,2-Trichloroethane	17	U
71-43-2	Benzene	17	U
10061-02-6	Trans-1,3-Dichloropropene	17	U
75-25-2	Bromoform	17	U
108-10-1	4-Methyl-2-Pentanone	17	U
591-78-6	2-Hexanone	17	U
127-18-4	Tetrachloroethene	17	U
79-34-5	1,1,2,2-Tetrachloroethane	17	U
108-88-3	Toluene	17	U
108-90-7	Chlorobenzene	17	U
100-41-4	Ethylbenzene	17	U
100-42-5	Styrene	17	U
1330-20-7	Xylene (total)	17	U

CL 5-20-93

FORM I VOA 3/90

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF31

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541829

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH041829C13

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: not dec. 41 Date Analyzed: 03/26/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF32

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541830

Sample wt/vol: 5.00 (g/mL) G Lab File ID: G2R41830B13

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: not dec. 61 Date Analyzed: 03/29/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	26	U
74-83-9	Bromomethane	26	U
75-01-4	Vinyl Chloride	26	U
75-00-3	Chloroethane	26	U
75-09-2	Methylene Chloride	140	BU
67-64-1	Acetone	67	BU
75-15-0	Carbon Disulfide	26	U
75-35-4	1,1-Dichloroethene	26	U
75-34-3	1,1-Dichloroethane	26	U
540-59-0	1,2-Dichloroethene (total)	26	U
67-66-3	Chloroform	5	J
107-06-2	1,2-Dichloroethane	26	U
78-93-3	2-Butanone	26	U
71-55-6	1,1,1-Trichloroethane	26	U
56-23-5	Carbon Tetrachloride	26	U
75-27-4	Bromodichloromethane	26	U
78-87-5	1,2-Dichloropropane	26	U
10061-01-5	cis-1,3-Dichloropropene	26	U
79-01-6	Trichloroethene	26	U
124-48-1	Dibromochloromethane	26	U
79-00-5	1,1,2-Trichloroethane	26	U
71-43-2	Benzene	26	U
10061-02-6	Trans-1,3-Dichloropropene	26	U
75-25-2	Bromoform	26	U
108-10-1	4-Methyl-2-Pentanone	26	U
591-78-6	2-Hexanone	26	U
127-18-4	Tetrachloroethene	26	U
79-34-5	1,1,2,2-Tetrachloroethane	26	U
108-88-3	Toluene	6	J
108-90-7	Chlorobenzene	26	U
100-41-4	Ethylbenzene	26	U
100-42-5	Styrene	26	U
1330-20-7	Xylene (total)	26	U

CL 5-20-93

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF32

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541830

Sample wt/vol: 5.00 (g/mL) G Lab File ID: G2R41830B13

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: not dec. 61 Date Analyzed: 03/29/93

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	ETF23	63	62	71	64	58	59	58	48	0
02	ETF23DL	36 D	37 D	57 D	42 D	38 D	36 D	39 D	33 D	0
03	ETF24	59	55	77	56	58	43	56	48	0
04	ETF24DL	39 D	43 D	64 D	45 D	46 D	40 D	46 D	47 D	0
05	ETF25	34 D	33 D	46 D	35 D	36 D	27 D	36 D	36 D	0
06	ETF26	54	52	95	55	52	53	51	37	0
07	ETF26RE	44	49	80	60	52	57	52	40	0
08	ETF28	69	71	65	56	53	76	63	66	0
09	ETF29	68	63	67	57	52	69	64	65	0
10	ETF30	68	67	70	55	50	76	60	63	0
11	ETF31	65	65	70	54	51	72	60	62	0
12	ETF32	61	63	57	50	47	70	57	57	0
13	ETF28MS	66	61	61	54	52	64	59	63	0
14	ETF28MSD	101	83	79	70	70	88	74	83	0
15	SBLK98	52	59	107	54	47	75	50	41	0
16	SBLK27	61	58	68	52	47	61	58	61	0

		QC 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 (2FP)	= 2-Fluorophenol	(25-121)	
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)	
S7 (2CP)	= 2-Chlorophenol-d4	(20-130)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(20-130)	(advisory)

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

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix Spike - EPA Sample No.: ETF28 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	4900	0	2809	57	26- 90
2-Chlorophenol	4900	0	2958	60	25-102
1,4-Dichlorobenzene	3270	0	2287	70	28-104
N-Nitroso-di-n-prop.(1)	3270	0	2567	78	41-126
1,2,4-Trichlorobenzene	3270	0	2651	81	38-107
4-Chloro-3-methylphenol	4900	0	3650	74	26-103
Acenaphthene	3270	73.91	2222	66	31-137
4-Nitrophenol	4900	0	3319	68	11-114
2,4-Dinitrotoluene	3270	0	2141	65	28- 89
Pentachlorophenol	4900	0	4203	86	17-109
Pyrene	3270	1082	2598	46	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	4900	3340	68	18	35	26- 90
2-Chlorophenol	4900	3337	68	12	50	25-102
1,4-Dichlorobenzene	3270	2879	88	23	27	28-104
N-Nitroso-di-n-prop.(1)	3270	3572	109	33	38	41-126
1,2,4-Trichlorobenzene	3270	3749	115 *	35 *	23	38-107
4-Chloro-3-methylphenol	4900	5110	104 *	34 *	33	26-103
Acenaphthene	3270	2874	86	26 *	19	31-137
4-Nitrophenol	4900	5201	106	44	50	11-114
2,4-Dinitrotoluene	3270	3118	95 *	38	47	28- 89
Pentachlorophenol	4900	6529	133 *	43	47	17-109
Pyrene	3270	3017	59	25	36	35-142

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 3 out of 11 outside limits
Spike Recovery: 4 out of 22 outside limits

COMMENTS: CLP ,19635,ETF23,ETF28,LOW,SOIL,541817,BNA,EPA,
CAP, HG930408B07,DF930408B07, , , ,

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK98

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Lab File ID: GH043830B02 Lab Sample ID: SBLK98

Instrument ID: OWA02 Date Extracted: 04/02/93

Matrix: (soil/water) SOIL Date Analyzed: 04/06/93

Level:(low/med) LOW Time Analyzed: 2138

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	ETF23	541487	GR041487B02	04/07/93
02	ETF23DL	541487	GJR41487B02	04/12/93
03	ETF24	541495	GR041495B02	04/07/93
04	ETF24DL	541495	GRD41495B02	04/08/93
05	ETF25	541498	GRD41498B02	04/12/93
06	ETF26	541499	GR041499B02	04/07/93
07	ETF26RE	541499	GRJ41499B02	04/09/93

COMMENTS: CLP , , , ,LOW, ,543830,BNA,BLANK,
CAP, HG930406B02,DH930406B02, , , ,

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK27

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Lab File ID: GH044126A07 Lab Sample ID: SBLK27

Instrument ID: OWA07 Date Extracted: 04/05/93

Matrix: (soil/water) SOIL Date Analyzed: 04/08/93

Level:(low/med) LOW Time Analyzed: 1417

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	ETF28	541817	GR041817B07	04/09/93
02	ETF29	541827	GR041827B07	04/09/93
03	ETF30	541828	GR041828B07	04/09/93
04	ETF31	541829	GR041829B07	04/09/93
05	ETF32	541830	GR041830B07	04/09/93
06	ETF28MS	541491	GR041491B07	04/09/93
07	ETF28MSD	541492	GJ041492A07	04/09/93

COMMENTS: CLP , , , ,LOW, ,544126,BNA,BLANK,
CAP, HG930408A07,DF930408A07, , , ,

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK98

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: SBLK98

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH043830B02

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

% Moisture: _____ decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/06/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK98

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: SBLK98

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH043830B02

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

% Moisture: _____ decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/06/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	800	U
100-02-7	4-Nitrophenol	800	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	800	U
534-52-1	4,6-Dinitro-2-Methylphenol	800	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	800	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)Anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	120	J
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK98

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: SBLK98

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH043830B02

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

% Moisture: _____ decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/06/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN CARBOXYLIC ACID	10.82	630	J
2.	UNKNOWN	13.58	67	J
3.	UNKNOWN	15.93	130	J
4.	UNKNOWN	17.92	430	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK27

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: SBLK27

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH044126A07

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

% Moisture: _____ decanted: (Y/N) N Date Extracted: 04/05/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/08/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK27

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: SBLK27

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH044126A07

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

% Moisture: _____ decanted: (Y/N) N Date Extracted: 04/05/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/08/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	800	U
100-02-7	4-Nitrophenol	800	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	800	U
534-52-1	4,6-Dinitro-2-Methylphenol	800	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	800	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	49	J
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)Anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK27

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: SBLK27

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH044126A07

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

% Moisture: _____ decanted: (Y/N) N Date Extracted: 04/05/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/08/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.38	67	J
2.	TETRACHLOROETHANE	5.52	67	J
3.	UNKNOWN	5.60	67	J
4.	ALDOL	5.72	370	AJ ✓

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF23

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541487

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GR041487B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 36 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/07/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	520	U
111-44-4	bis(2-Chloroethyl)Ether	520	U
95-57-8	2-Chlorophenol	520	U
541-73-1	1,3-Dichlorobenzene	520	U
106-46-7	1,4-Dichlorobenzene	520	U
95-50-1	1,2-Dichlorobenzene	520	U
95-48-7	2-Methylphenol	520	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	520	U
106-44-5	4-Methylphenol	250	J
621-64-7	N-Nitroso-Di-n-Propylamine	520	U
67-72-1	Hexachloroethane	520	U
98-95-3	Nitrobenzene	520	U
78-59-1	Isophorone	520	U
88-75-5	2-Nitrophenol	520	U
105-67-9	2,4-Dimethylphenol	520	U
111-91-1	bis(2-Chloroethoxy)Methane	520	U
120-83-2	2,4-Dichlorophenol	520	U
120-82-1	1,2,4-Trichlorobenzene	520	U
91-20-3	Naphthalene	82	J
106-47-8	4-Chloroaniline	520	U
87-68-3	Hexachlorobutadiene	520	U
59-50-7	4-Chloro-3-Methylphenol	520	U
91-57-6	2-Methylnaphthalene	73	J
77-47-4	Hexachlorocyclopentadiene	520	U
88-06-2	2,4,6-Trichlorophenol	520	U
95-95-4	2,4,5-Trichlorophenol	1200	U
91-58-7	2-Chloronaphthalene	520	U
88-74-4	2-Nitroaniline	1200	U
131-11-3	Dimethyl Phthalate	520	U
208-96-8	Acenaphthylene	520	U
606-20-2	2,6-Dinitrotoluene	520	U
99-09-2	3-Nitroaniline	1200	U
83-32-9	Acenaphthene	380	J

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF23

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541487

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GR041487B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 36 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/07/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1200	U
100-02-7	4-Nitrophenol	1200	U
132-64-9	Dibenzofuran	180	J
121-14-2	2,4-Dinitrotoluene	520	U
84-66-2	Diethylphthalate	520	U
7005-72-3	4-Chlorophenyl-phenylether	520	U
86-73-7	Fluorene	410	J
100-01-6	4-Nitroaniline	1200	U
534-52-1	4,6-Dinitro-2-Methylphenol	1200	U
86-30-6	N-Nitrosodiphenylamine (1)	110	J
101-55-3	4-Bromophenyl-phenylether	520	U
118-74-1	Hexachlorobenzene	520	U
87-86-5	Pentachlorophenol	1200	U
85-01-8	Phenanthrene	900	
120-12-7	Anthracene	930	
86-74-8	Carbazole	350	J
84-74-2	Di-n-Butylphthalate	58	J
206-44-0	Fluoranthene	7300	E
129-00-0	Pyrene	8400	E
85-68-7	Butylbenzylphthalate	250	J
91-94-1	3,3'-Dichlorobenzidine	520	U
56-55-3	Benzo(a)Anthracene	7200	E
218-01-9	Chrysene	2700	
117-81-7	bis(2-Ethylhexyl)Phthalate	880	BU
117-84-0	Di-n-Octyl Phthalate	120	J
205-99-2	Benzo(b)Fluoranthene	7800	XE
207-08-9	Benzo(k)Fluoranthene	7800	XE
50-32-8	Benzo(a)Pyrene	3200	
193-39-5	Indeno(1,2,3-cd)Pyrene	2000	
53-70-3	Dibenz(a,h)Anthracene	720	
191-24-2	Benzo(g,h,i)Perylene	2100	

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF23

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541487

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GR041487B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 36 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/07/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

Number TICs found: 21

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 930-68-7	2-CYCLOHEXEN-1-ONE	5.72	260	JN
2.	ALDOL	6.22	~~470~~	~~AJ~~
3.	UNKNOWN PAH	13.27	880	J
4.	UNKNOWN PAH	13.30	360	J
5.	UNKNOWN PAH	13.37	360	J
6.	UNKNOWN	13.43	1100	J
7.	UNKNOWN PAH	13.65	360	J
8. 5737-13-3	CYCLOPENTA(DEF)PHENANTHRENON	14.15	620	JN
9.	UNKNOWN PAH	15.00	1200	J
10.	UNKNOWN PAH	15.10	730	J
11.	METHYLPYRENE	15.15	680	J
12.	METHYLPYRENE	15.28	420	J
13.	METHYLPYRENE	15.33	360	J
14.	UNKNOWN	15.58	360	J
15.	UNKNOWN PNA	15.70	730	J
16.	UNKNOWN	15.90	1500	J
17.	UNKNOWN	15.97	520	J
18.	METHYLBENZANTHRACENE	16.93	780	J
19.	UNKNOWN	16.98	830	J
20.	UNKNOWN	18.48	1200	J
21.	UNKNOWN PAH	19.00	780	J

14,500

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF23DL

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541487

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GJR41487B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 36 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/12/93

Injection Volume: 2.0(uL) Dilution Factor: 3.0

GPC Cleanup: (Y/N) Y pH: 7.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) 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	1500	U
95-50-1	1,2-Dichlorobenzene	1500	U
95-48-7	2-Methylphenol	1500	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1500	U
106-44-5	4-Methylphenol	160	DJ
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
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
87-68-3	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
88-06-2	2,4,6-Trichlorophenol	1500	U
95-95-4	2,4,5-Trichlorophenol	3700	U
91-58-7	2-Chloronaphthalene	1500	U
88-74-4	2-Nitroaniline	3700	U
131-11-3	Dimethyl Phthalate	1500	U
208-96-8	Acenaphthylene	1500	U
606-20-2	2,6-Dinitrotoluene	1500	U
99-09-2	3-Nitroaniline	3700	U
83-32-9	Acenaphthene	220	DJ

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF23DL

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541487

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GJR41487B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 36 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/12/93

Injection Volume: 2.0(uL) Dilution Factor: 3.0

GPC Cleanup: (Y/N) Y pH: 7.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	3700	U
100-02-7	4-Nitrophenol	3700	U
132-64-9	Dibenzofuran	1500	U
121-14-2	2,4-Dinitrotoluene	1500	U
84-66-2	Diethylphthalate	1500	U
7005-72-3	4-Chlorophenyl-phenylether	1500	U
86-73-7	Fluorene	220	DJ
100-01-6	4-Nitroaniline	3700	U
534-52-1	4,6-Dinitro-2-Methylphenol	3700	U
86-30-6	N-Nitrosodiphenylamine (1)	1500	U
101-55-3	4-Bromophenyl-phenylether	1500	U
118-74-1	Hexachlorobenzene	1500	U
87-86-5	Pentachlorophenol	3700	U
85-01-8	Phenanthrene	2600	D
120-12-7	Anthracene	670	DJ
86-74-8	Carbazole	230	DJ
84-74-2	Di-n-Butylphthalate	1500	U
206-44-0	Fluoranthene	4000	D
129-00-0	Pyrene	8500	D
85-68-7	Butylbenzylphthalate	350	DJ
91-94-1	3,3'-Dichlorobenzidine	1500	U
56-55-3	Benzo(a)Anthracene	3500	D
218-01-9	Chrysene	3100	D
117-81-7	bis(2-Ethylhexyl)Phthalate	1500 ~~850~~	BDJ U
117-84-0	Di-n-Octyl Phthalate	1500	U
205-99-2	Benzo(b)Fluoranthene	5800	DX
207-08-9	Benzo(k)Fluoranthene	5800	DX
50-32-8	Benzo(a)Pyrene	3000	D
193-39-5	Indeno(1,2,3-cd)Pyrene	2900	D
53-70-3	Dibenz(a,h)Anthracene	960	DJ
191-24-2	Benzo(g,h,i)Perylene	1700	D

CL 5-20-93

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF23DL

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541487

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GJR41487B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 36 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/12/93

Injection Volume: 2.0(uL) Dilution Factor: 3.0

GPC Cleanup: (Y/N) Y pH: 7.2

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN PAH	13.27	310	J
2.	UNKNOWN	13.38	780	J
3.	UNKNOWN	14.82	310	J
4.	UNKNOWN PAH	14.97	1100	J
5.	UNKNOWN PAH	15.07	470	J
6.	METHYLPYRENE	15.12	620	J
7.	UNKNOWN	15.67	310	J
8.	UNKNOWN	15.87	1200	J
9.	UNKNOWN	15.92	620	J
10.	UNKNOWN	16.10	780	J
11.	UNKNOWN PAH	18.25	7800	J
12.	UNKNOWN	18.48	3100	J
13.	UNKNOWN PAH	18.92	3100	J
14.	UNKNOWN	20.83	940	J
15.	UNKNOWN	21.43	3100	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF24

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541495

Sample wt/vol: 30.6 (g/mL) G Lab File ID: GR041495B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 39 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/07/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	110	J
111-44-4	bis(2-Chloroethyl)Ether	530	U
95-57-8	2-Chlorophenol	530	U
541-73-1	1,3-Dichlorobenzene	530	U
106-46-7	1,4-Dichlorobenzene	530	U
95-50-1	1,2-Dichlorobenzene	530	U
95-48-7	2-Methylphenol	63	J
108-60-1	2,2'-Oxybis(1-Chloropropane)	530	U
106-44-5	4-Methylphenol	140	J
621-64-7	N-Nitroso-Di-n-Propylamine	530	U
67-72-1	Hexachloroethane	530	U
98-95-3	Nitrobenzene	530	U
78-59-1	Isophorone	530	U
88-75-5	2-Nitrophenol	530	U
105-67-9	2,4-Dimethylphenol	100	J
111-91-1	bis(2-Chloroethoxy)Methane	530	U
120-83-2	2,4-Dichlorophenol	530	U
120-82-1	1,2,4-Trichlorobenzene	530	U
91-20-3	Naphthalene	190	J
106-47-8	4-Chloroaniline	530	U
87-68-3	Hexachlorobutadiene	530	U
59-50-7	4-Chloro-3-Methylphenol	530	U
91-57-6	2-Methylnaphthalene	210	J
77-47-4	Hexachlorocyclopentadiene	530	U
88-06-2	2,4,6-Trichlorophenol	530	U
95-95-4	2,4,5-Trichlorophenol	1300	U
91-58-7	2-Chloronaphthalene	530	U
88-74-4	2-Nitroaniline	1300	U
131-11-3	Dimethyl Phthalate	530	U
208-96-8	Acenaphthylene	89	J
606-20-2	2,6-Dinitrotoluene	530	U
99-09-2	3-Nitroaniline	1300	U
83-32-9	Acenaphthene	760	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF24

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541495

Sample wt/vol: 30.6 (g/mL) G Lab File ID: GR041495B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 39 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/07/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1300	U
100-02-7	4-Nitrophenol	1300	U
132-64-9	Dibenzofuran	630	
121-14-2	2,4-Dinitrotoluene	530	U
84-66-2	Diethylphthalate	530	U
7005-72-3	4-Chlorophenyl-phenylether	530	U
86-73-7	Fluorene	840	
100-01-6	4-Nitroaniline	1300	U
534-52-1	4,6-Dinitro-2-Methylphenol	1300	U
86-30-6	N-Nitrosodiphenylamine (1)	530	U
101-55-3	4-Bromophenyl-phenylether	530	U
118-74-1	Hexachlorobenzene	530	U
87-86-5	Pentachlorophenol	1300	U
85-01-8	Phenanthrene	9200	E
120-12-7	Anthracene	1900	
86-74-8	Carbazole	1100	
84-74-2	Di-n-Butylphthalate	85	J
206-44-0	Fluoranthene	12000	E
129-00-0	Pyrene	14000	E
85-68-7	Butylbenzylphthalate	530	U
91-94-1	3,3'-Dichlorobenzidine	530	U
56-55-3	Benzo(a)Anthracene	12000	E
218-01-9	Chrysene	5600	E
117-81-7	bis(2-Ethylhexyl)Phthalate	1000	BU
117-84-0	Di-n-Octyl Phthalate	62	J
205-99-2	Benzo(b)Fluoranthene	17000	EX
207-08-9	Benzo(k)Fluoranthene	17000	EX
50-32-8	Benzo(a)Pyrene	5900	E
193-39-5	Indeno(1,2,3-cd)Pyrene	4900	E
53-70-3	Dibenz(a,h)Anthracene	1200	
191-24-2	Benzo(g,h,i)Perylene	4000	

(1) - Cannot be separated from Diphenylamine

CL 5-20-93

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF24

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541495

Sample wt/vol: 30.6 (g/mL) G Lab File ID: GR041495B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 39 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/07/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 21

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 930-68-7	2-CYCLOHEXEN-1-ONE	5.73	380	JN
2.	ALDOL	6.22	590	AJ
3.	UNKNOWN PNA	12.33	540	J
4.	UNKNOWN PAH	13.28	1300	J
5.	UNKNOWN PAH	13.32	700	J
6.	UNKNOWN PAH	13.45	1400	J
7.	UNKNOWN PAH	13.67	640	J
8.	DIMETHYLPHENATHRENE	14.03	540	J
9. 5737-13-3	CYCLOPENTA(DEF)PHENANTHRENON	14.17	750	JN
10.	UNKNOWN	14.48	380	J
11.	UNKNOWN PAH	14.87	640	J
12.	UNKNOWN PAH	15.02	7500	J
13.	UNKNOWN PAH	15.12	3600	J
14.	METHYLPYRENE	15.17	5400	J
15.	METHYLPYRENE	15.30	2500	J
16.	UNKNOWN PAH	15.35	3000	J
17.	UNKNOWN PNA	15.73	4600	J
18.	UNKNOWN PNA	15.88	11000	J
19.	UNKNOWN	15.98	4300	J
20.	UNKNOWN PNA	16.03	2800	J
21.	UNKNOWN PAH	19.03	11000	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF24DL

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541495

Sample wt/vol: 30.6 (g/mL) G Lab File ID: GRD41495B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 39 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/08/93

Injection Volume: 2.0(uL) Dilution Factor: 10.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	5300	U
111-44-4	bis(2-Chloroethyl)Ether	5300	U
95-57-8	2-Chlorophenol	5300	U
541-73-1	1,3-Dichlorobenzene	5300	U
106-46-7	1,4-Dichlorobenzene	5300	U
95-50-1	1,2-Dichlorobenzene	5300	U
95-48-7	2-Methylphenol	5300	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	5300	U
106-44-5	4-Methylphenol	5300	U
621-64-7	N-Nitroso-Di-n-Propylamine	5300	U
67-72-1	Hexachloroethane	5300	U
98-95-3	Nitrobenzene	5300	U
78-59-1	Isophorone	5300	U
88-75-5	2-Nitrophenol	5300	U
105-67-9	2,4-Dimethylphenol	5300	U
111-91-1	bis(2-Chloroethoxy)Methane	5300	U
120-83-2	2,4-Dichlorophenol	5300	U
120-82-1	1,2,4-Trichlorobenzene	5300	U
91-20-3	Naphthalene	5300	U
106-47-8	4-Chloroaniline	5300	U
87-68-3	Hexachlorobutadiene	5300	U
59-50-7	4-Chloro-3-Methylphenol	5300	U
91-57-6	2-Methylnaphthalene	5300	U
77-47-4	Hexachlorocyclopentadiene	5300	U
88-06-2	2,4,6-Trichlorophenol	5300	U
95-95-4	2,4,5-Trichlorophenol	13000	U
91-58-7	2-Chloronaphthalene	5300	U
88-74-4	2-Nitroaniline	13000	U
131-11-3	Dimethyl Phthalate	5300	U
208-96-8	Acenaphthylene	5300	U
606-20-2	2,6-Dinitrotoluene	5300	U
99-09-2	3-Nitroaniline	13000	U
83-32-9	Acenaphthene	630	DJ

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF24DL

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541495

Sample wt/vol: 30.6 (g/mL) G Lab File ID: GRD41495B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 39 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/08/93

Injection Volume: 2.0(uL) Dilution Factor: 10.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	13000	U
100-02-7	4-Nitrophenol	13000	U
132-64-9	Dibenzofuran	5300	U
121-14-2	2,4-Dinitrotoluene	5300	U
84-66-2	Diethylphthalate	5300	U
7005-72-3	4-Chlorophenyl-phenylether	5300	U
86-73-7	Fluorene	700	DJ
100-01-6	4-Nitroaniline	13000	U
534-52-1	4,6-Dinitro-2-Methylphenol	13000	U
86-30-6	N-Nitrosodiphenylamine (1)	5300	U
101-55-3	4-Bromophenyl-phenylether	5300	U
118-74-1	Hexachlorobenzene	5300	U
87-86-5	Pentachlorophenol	13000	U
85-01-8	Phenanthrene	7500	D
120-12-7	Anthracene	1700	DJ
86-74-8	Carbazole	950	DJ
84-74-2	Di-n-Butylphthalate	5300	U
206-44-0	Fluoranthene	10000	D
129-00-0	Pyrene	12000	D
85-68-7	Butylbenzylphthalate	550	DJ
91-94-1	3,3'-Dichlorobenzidine	5300	U
56-55-3	Benzo(a)Anthracene	7700	D
218-01-9	Chrysene	5600	D
117-81-7	bis(2-Ethylhexyl)Phthalate	5300 ~~1100~~	BDJU
117-84-0	Di-n-Octyl Phthalate	5300	U
205-99-2	Benzo(b)Fluoranthene	9500	DX
207-08-9	Benzo(k)Fluoranthene	9500	DX
50-32-8	Benzo(a)Pyrene	4100	DJ
193-39-5	Indeno(1,2,3-cd)Pyrene	1000	DJ
53-70-3	Dibenz(a,h)Anthracene	5300	U
191-24-2	Benzo(g,h,i)Perylene	3700	DJ

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF24DL

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541495

Sample wt/vol: 30.6 (g/mL) G Lab File ID: GRD41495B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 39 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/08/93

Injection Volume: 2.0(uL) Dilution Factor: 10.0

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

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN PAH	13.25	540	J
2.	UNKNOWN	13.38	1100	J
3.	UNKNOWN	18.20	3200	J
4.	UNKNOWN PAH	18.87	5900	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF25

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541498

Sample wt/vol: 30.8 (g/mL) G Lab File ID: GRD41498B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 40 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/12/93

Injection Volume: 2.0(uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: 8.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	2700	U
111-44-4	bis(2-Chloroethyl)Ether	2700	U
95-57-8	2-Chlorophenol	2700	U
541-73-1	1,3-Dichlorobenzene	2700	U
106-46-7	1,4-Dichlorobenzene	2700	U
95-50-1	1,2-Dichlorobenzene	2700	U
95-48-7	2-Methylphenol	2700	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	2700	U
106-44-5	4-Methylphenol	2700	U
621-64-7	N-Nitroso-Di-n-Propylamine	2700	U
67-72-1	Hexachloroethane	2700	U
98-95-3	Nitrobenzene	2700	U
78-59-1	Isophorone	2700	U
88-75-5	2-Nitrophenol	2700	U
105-67-9	2,4-Dimethylphenol	2700	U
111-91-1	bis(2-Chloroethoxy)Methane	2700	U
120-83-2	2,4-Dichlorophenol	2700	U
120-82-1	1,2,4-Trichlorobenzene	2700	U
91-20-3	Naphthalene	2700	U
106-47-8	4-Chloroaniline	2700	U
87-68-3	Hexachlorobutadiene	2700	U
59-50-7	4-Chloro-3-Methylphenol	2700	U
91-57-6	2-Methylnaphthalene	2700	U
77-47-4	Hexachlorocyclopentadiene	2700	U
88-06-2	2,4,6-Trichlorophenol	2700	U
95-95-4	2,4,5-Trichlorophenol	6500	U
91-58-7	2-Chloronaphthalene	2700	U
88-74-4	2-Nitroaniline	6500	U
131-11-3	Dimethyl Phthalate	2700	U
208-96-8	Acenaphthylene	2700	U
606-20-2	2,6-Dinitrotoluene	2700	U
99-09-2	3-Nitroaniline	6500	U
83-32-9	Acenaphthene	360	J

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF25

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541498

Sample wt/vol: 30.8 (g/mL) G Lab File ID: GRD41498B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 40 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/12/93

Injection Volume: 2.0(uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: 8.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	6500	U
100-02-7	4-Nitrophenol	6500	U
132-64-9	Dibenzofuran	2700	U
121-14-2	2,4-Dinitrotoluene	2700	U
84-66-2	Diethylphthalate	2700	U
7005-72-3	4-Chlorophenyl-phenylether	2700	U
86-73-7	Fluorene	420	J
100-01-6	4-Nitroaniline	6500	U
534-52-1	4,6-Dinitro-2-Methylphenol	6500	U
86-30-6	N-Nitrosodiphenylamine (1)	2700	U
101-55-3	4-Bromophenyl-phenylether	2700	U
118-74-1	Hexachlorobenzene	2700	U
87-86-5	Pentachlorophenol	6500	U
85-01-8	Phenanthrene	5500	
120-12-7	Anthracene	1200	J
86-74-8	Carbazole	560	J
84-74-2	Di-n-Butylphthalate	2700	U
206-44-0	Fluoranthene	8000	
129-00-0	Pyrene	10000	
85-68-7	Butylbenzylphthalate	350	J
91-94-1	3,3'-Dichlorobenzidine	2700	U
56-55-3	Benzo(a)Anthracene	6100	
218-01-9	Chrysene	4500	
117-81-7	bis(2-Ethylhexyl)Phthalate	2700 ~~750~~	BJ U
117-84-0	Di-n-Octyl Phthalate	2700	U
205-99-2	Benzo(b)Fluoranthene	11000	X
207-08-9	Benzo(k)Fluoranthene	11000	X
50-32-8	Benzo(a)Pyrene	5400	
193-39-5	Indeno(1,2,3-cd)Pyrene	4900	
53-70-3	Dibenz(a,h)Anthracene	460	J
191-24-2	Benzo(g,h,i)Perylene	4000	

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF25

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541498

Sample wt/vol: 30.8 (g/mL) G Lab File ID: GRD41498B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 40 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/12/93

Injection Volume: 2.0(uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: 8.1

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN PAH	13.38	1400	J
2.	UNKNOWN	15.92	2700	J
3.	UNKNOWN	15.97	2400	J
4.	UNKNOWN	16.40	2400	J
5.	UNKNOWN	16.58	1400	J
6.	UNKNOWN	16.80	1600	J
7.	UNKNOWN	16.87	3800	J
8.	UNKNOWN	16.95	1600	J
9.	UNKNOWN	17.02	1600	J
10.	UNKNOWN	17.05	1100	J
11.	UNKNOWN	17.08	1400	J
12.	UNKNOWN	17.58	1600	J
13.	UNKNOWN	17.68	1400	J
14.	UNKNOWN	17.92	1400	J
15.	UNKNOWN	18.48	3200	J
16.	UNKNOWN	18.92	4600	J
17.	UNKNOWN PAH	19.08	5700	J
18.	UNKNOWN	19.28	1900	J
19.	UNKNOWN	22.73	1600	J
20.	UNKNOWN	22.77	1400	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF26

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541499

Sample wt/vol: 30.7 (g/mL) G Lab File ID: GR041499B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 54 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/07/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	700	U
111-44-4	bis(2-Chloroethyl)Ether	700	U
95-57-8	2-Chlorophenol	700	U
541-73-1	1,3-Dichlorobenzene	700	U
106-46-7	1,4-Dichlorobenzene	700	U
95-50-1	1,2-Dichlorobenzene	700	U
95-48-7	2-Methylphenol	700	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	700	U
106-44-5	4-Methylphenol	700	U
621-64-7	N-Nitroso-Di-n-Propylamine	700	U
67-72-1	Hexachloroethane	700	U
98-95-3	Nitrobenzene	700	U
78-59-1	Isophorone	700	U
88-75-5	2-Nitrophenol	700	U
105-67-9	2,4-Dimethylphenol	700	U
111-91-1	bis(2-Chloroethoxy)Methane	700	U
120-83-2	2,4-Dichlorophenol	700	U
120-82-1	1,2,4-Trichlorobenzene	700	U
91-20-3	Naphthalene	700	U
106-47-8	4-Chloroaniline	700	U
87-68-3	Hexachlorobutadiene	700	U
59-50-7	4-Chloro-3-Methylphenol	700	U
91-57-6	2-Methylnaphthalene	110	J
77-47-4	Hexachlorocyclopentadiene	700	U
88-06-2	2,4,6-Trichlorophenol	700	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	700	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethyl Phthalate	700	U
208-96-8	Acenaphthylene	700	U
606-20-2	2,6-Dinitrotoluene	700	U
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	170	J

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF26

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541499

Sample wt/vol: 30.7 (g/mL) G Lab File ID: GR041499B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 54 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/07/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	700	U
121-14-2	2,4-Dinitrotoluene	700	U
84-66-2	Diethylphthalate	700	U
7005-72-3	4-Chlorophenyl-phenylether	700	U
86-73-7	Fluorene	190	J
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-Methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	700	U
101-55-3	4-Bromophenyl-phenylether	700	U
118-74-1	Hexachlorobenzene	700	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	1600	
120-12-7	Anthracene	380	J
86-74-8	Carbazole	140	J
84-74-2	Di-n-Butylphthalate	700	U
206-44-0	Fluoranthene	2100	
129-00-0	Pyrene	2900	J
85-68-7	Butylbenzylphthalate	81	J
91-94-1	3,3'-Dichlorobenzidine	700	U
56-55-3	Benzo(a)Anthracene	1500	~~J~~
218-01-9	Chrysene	1100	J
117-81-7	bis(2-Ethylhexyl)Phthalate	700 ~~190~~	BJ U
117-84-0	Di-n-Octyl Phthalate	700	U
205-99-2	Benzo(b)Fluoranthene	2200	X
207-08-9	Benzo(k)Fluoranthene	2200	X
50-32-8	Benzo(a)Pyrene	890	~~J~~
193-39-5	Indeno(1,2,3-cd)Pyrene	460	J
53-70-3	Dibenz(a,h)Anthracene	77	J
191-24-2	Benzo(g,h,i)Perylene	180	J

CL 5-20-9

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF26

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541499

Sample wt/vol: 30.7 (g/mL) G Lab File ID: GR041499B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 54 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/07/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 21

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CYCLOHEXENOL	5.23	210	J
2. 930-68-7	2-CYCLOHEXEN-1-ONE	5.72	350	JN
3.	ALDOL	6.22	640	AJ
4.	UNKNOWN SUBSTITUTED BENZOIC	7.82	430	J
5.	UNKNOWN	9.10	430	J
6.	DIMETHYLNAPHTHALENE	10.00	210	J
7.	UNKNOWN SUBSTITUTED NAPHTHAL	10.10	430	J
8.	UNKNOWN SUBSTITUTED NAPHTHAL	10.15	210	J
9.	UNKNOWN	10.87	18000	J
10.	UNKNOWN	11.10	280	J
11. 2489-86-3	NAPHTHALENE, 1-(2-PROPENYL)-	11.40	350	JN
12.	UNKNOWN PAH	13.27	210	J
13.	UNKNOWN PAH	13.30	210	J
14.	UNKNOWN PAH	13.43	430	J
15.	UNKNOWN	14.83	140	J
16.	UNKNOWN PAH	15.00	350	J
17.	UNKNOWN PAH	15.15	210	J
18.	UNKNOWN	15.90	570	J
19.	UNKNOWN PAH	16.92	210	J
20.	UNKNOWN	17.00	280	J
21.	UNKNOWN PAH	18.32	3800	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF26RE

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541499

Sample wt/vol: 30.7 (g/mL) G Lab File ID: GRJ41499B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 54 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/09/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	700	U
111-44-4	bis(2-Chloroethyl)Ether	700	U
95-57-8	2-Chlorophenol	700	U
541-73-1	1,3-Dichlorobenzene	700	U
106-46-7	1,4-Dichlorobenzene	700	U
95-50-1	1,2-Dichlorobenzene	700	U
95-48-7	2-Methylphenol	700	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	700	U
106-44-5	4-Methylphenol	700	U
621-64-7	N-Nitroso-Di-n-Propylamine	700	U
67-72-1	Hexachloroethane	700	U
98-95-3	Nitrobenzene	700	U
78-59-1	Isophorone	700	U
88-75-5	2-Nitrophenol	700	U
105-67-9	2,4-Dimethylphenol	700	U
111-91-1	bis(2-Chloroethoxy)Methane	700	U
120-83-2	2,4-Dichlorophenol	700	U
120-82-1	1,2,4-Trichlorobenzene	700	U
91-20-3	Naphthalene	700	U
106-47-8	4-Chloroaniline	700	U
87-68-3	Hexachlorobutadiene	700	U
59-50-7	4-Chloro-3-Methylphenol	700	U
91-57-6	2-Methylnaphthalene	110	J
77-47-4	Hexachlorocyclopentadiene	700	U
88-06-2	2,4,6-Trichlorophenol	700	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	700	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethyl Phthalate	700	U
208-96-8	Acenaphthylene	700	U
606-20-2	2,6-Dinitrotoluene	700	U
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	180	J

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF26RE

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541499

Sample wt/vol: 30.7 (g/mL) G Lab File ID: GRJ41499B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 54 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/09/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	100	J
132-64-9	Dibenzofuran	91	J
121-14-2	2,4-Dinitrotoluene	700	U
84-66-2	Diethylphthalate	700	U
7005-72-3	4-Chlorophenyl-phenylether	700	U
86-73-7	Fluorene	190	J
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-Methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	110	J
101-55-3	4-Bromophenyl-phenylether	700	U
118-74-1	Hexachlorobenzene	700	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	1500	
120-12-7	Anthracene	420	J
86-74-8	Carbazole	180	J
84-74-2	Di-n-Butylphthalate	700	U
206-44-0	Fluoranthene	1800	
129-00-0	Pyrene	2500	
85-68-7	Butylbenzylphthalate	120	J
91-94-1	3,3'-Dichlorobenzidine	700	U
56-55-3	Benzo(a)Anthracene	2300	
218-01-9	Chrysene	1500	
117-81-7	bis(2-Ethylhexyl)Phthalate	700 ~~240~~	BJ U
117-84-0	Di-n-Octyl Phthalate	700	U
205-99-2	Benzo(b)Fluoranthene	2000	X
207-08-9	Benzo(k)Fluoranthene	2000	X
50-32-8	Benzo(a)Pyrene	840	
193-39-5	Indeno(1,2,3-cd)Pyrene	700	U
53-70-3	Dibenz(a,h)Anthracene	700	U
191-24-2	Benzo(g,h,i)Perylene	700	U

CL 5-20-

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF26RE

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541499

Sample wt/vol: 30.7 (g/mL) G Lab File ID: GRJ41499B02

Level: (low/med) LOW Date Received: 03/24/93

% Moisture: 54 decanted: (Y/N) N Date Extracted: 04/02/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/09/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 21

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL	6.18	500	AJ
2.	UNKNOWN	6.27	2300	J
3.	UNKNOWN	6.75	1500	J
4.	UNKNOWN SUBSTITUTED BENZOIC	7.78	430	J
5.	UNKNOWN	9.05	350	J
6.	DIMETHYLNAPHTHALENE	10.07	640	J
7.	DIMETHYLNAPHTHALENE	10.22	210	J
8.	UNKNOWN	10.78	14000	J
9.	UNKNOWN	11.05	280	J
10.	UNKNOWN	11.35	280	J
11.	UNKNOWN	12.00	210	J
12.	UNKNOWN	12.05	140	J
13.	UNKNOWN	13.17	280	J
14.	UNKNOWN	13.22	280	J
15.	UNKNOWN	13.37	430	J
16.	UNKNOWN	14.58	210	J
17.	UNKNOWN	14.78	210	J
18.	UNKNOWN PAH	14.93	430	J
19.	UNKNOWN	15.85	500	J
20.	UNKNOWN	15.90	210	J
21.	UNKNOWN	18.20	570	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF28

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541817

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GR041817B07

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: 49 decanted: (Y/N) N Date Extracted: 04/05/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/09/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	650	U
111-44-4	bis(2-Chloroethyl)Ether	650	U
95-57-8	2-Chlorophenol	650	U
541-73-1	1,3-Dichlorobenzene	650	U
106-46-7	1,4-Dichlorobenzene	650	U
95-50-1	1,2-Dichlorobenzene	650	U
95-48-7	2-Methylphenol	650	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	650	U
106-44-5	4-Methylphenol	650	U
621-64-7	N-Nitroso-Di-n-Propylamine	650	U
67-72-1	Hexachloroethane	650	U
98-95-3	Nitrobenzene	650	U
78-59-1	Isophorone	650	U
88-75-5	2-Nitrophenol	650	U
105-67-9	2,4-Dimethylphenol	650	U
111-91-1	bis(2-Chloroethoxy)Methane	650	U
120-83-2	2,4-Dichlorophenol	650	U
120-82-1	1,2,4-Trichlorobenzene	650	U
91-20-3	Naphthalene	230	J
106-47-8	4-Chloroaniline	650	U
87-68-3	Hexachlorobutadiene	650	U
59-50-7	4-Chloro-3-Methylphenol	650	U
91-57-6	2-Methylnaphthalene	280	J
77-47-4	Hexachlorocyclopentadiene	650	U
88-06-2	2,4,6-Trichlorophenol	650	U
95-95-4	2,4,5-Trichlorophenol	1600	U
91-58-7	2-Chloronaphthalene	650	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	650	U
208-96-8	Acenaphthylene	650	U
606-20-2	2,6-Dinitrotoluene	650	U
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	74	J

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF28

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541817

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GR041817B07

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: 49 decanted: (Y/N) N Date Extracted: 04/05/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/09/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	120	J
121-14-2	2,4-Dinitrotoluene	650	U
84-66-2	Diethylphthalate	650	U
7005-72-3	4-Chlorophenyl-phenylether	650	U
86-73-7	Fluorene	68	J
100-01-6	4-Nitroaniline	1600	U
534-52-1	4,6-Dinitro-2-Methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	650	U
101-55-3	4-Bromophenyl-phenylether	650	U
118-74-1	Hexachlorobenzene	650	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	810	
120-12-7	Anthracene	190	J
86-74-8	Carbazole	100	J
84-74-2	Di-n-Butylphthalate	71	J
206-44-0	Fluoranthene	1100	
129-00-0	Pyrene	1100	
85-68-7	Butylbenzylphthalate	650 ~~270~~	BJU
91-94-1	3,3'-Dichlorobenzidine	650	U
56-55-3	Benzo(a)Anthracene	810	
218-01-9	Chrysene	670	
117-81-7	bis(2-Ethylhexyl)Phthalate	89	J
117-84-0	Di-n-Octyl Phthalate	650	U
205-99-2	Benzo(b)Fluoranthene	1000	
207-08-9	Benzo(k)Fluoranthene	1100	
50-32-8	Benzo(a)Pyrene	460	J
193-39-5	Indeno(1,2,3-cd)Pyrene	510	J
53-70-3	Dibenz(a,h)Anthracene	250	J
191-24-2	Benzo(g,h,i)Perylene	500	J

(1) - Cannot be separated from Diphenylamine

CL 5-20-93

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF28

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541817

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GR041817B07

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: 49 decanted: (Y/N) N Date Extracted: 04/05/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/09/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.7

Number TICs found: 22

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

CL 5-20-

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL	5.77	910	ABJ
2.	ALDOL	6.20	200	AJ
3.	UNKNOWN	6.70	260	J
4.	UNKNOWN	6.85	520	J
5.	1-METHYLNAPHTHALENE	9.27	200	J
6.	DIMETHYLNAPHTHALENE	10.08	260	J
7.	DIMETHYLNAPHTHALENE	10.12	330	J
8.	DIMETHYLNAPHTHALENE	10.23	260	J
9.	UNKNOWN HYDROCARBON	10.40	260	J
10.	UNKNOWN CARBOXYLIC ACID	10.77	390	J
11.	UNKNOWN	11.07	390	J
12.	TRIMETHYLNAPHTHALENE	11.27	200	J
13.	UNKNOWN HYDROCARBON	11.72	520	J
14.	UNKNOWN HYDROCARBON	12.30	200	J
15.	UNKNOWN HYDROCARBON	12.88	200	J
16.	METHYL ANTHRACENE	13.25	200	J
17.	METHYLANTHRACENE	13.40	260	J
18.	DDE	14.60	260	J
19.	UNKNOWN HYDROCARBON	14.95	460	J
20.	METHYLPYRENE	15.13	260	J
21.	UNKNOWN	15.90	520	J
22.	UNKNOWN HYDROCARBON	17.08	260	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF29

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541827

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GR041827B07

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: 61 decanted: (Y/N) N Date Extracted: 04/05/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/09/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.7

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	850	U
111-44-4	bis(2-Chloroethyl)Ether	850	U
95-57-8	2-Chlorophenol	850	U
541-73-1	1,3-Dichlorobenzene	850	U
106-46-7	1,4-Dichlorobenzene	850	U
95-50-1	1,2-Dichlorobenzene	850	U
95-48-7	2-Methylphenol	850	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	850	U
106-44-5	4-Methylphenol	170	J
621-64-7	N-Nitroso-Di-n-Propylamine	850	U
67-72-1	Hexachloroethane	850	U
98-95-3	Nitrobenzene	850	U
78-59-1	Isophorone	850	U
88-75-5	2-Nitrophenol	850	U
105-67-9	2,4-Dimethylphenol	850	U
111-91-1	bis(2-Chloroethoxy)Methane	850	U
120-83-2	2,4-Dichlorophenol	850	U
120-82-1	1,2,4-Trichlorobenzene	850	U
91-20-3	Naphthalene	850	U
106-47-8	4-Chloroaniline	850	U
87-68-3	Hexachlorobutadiene	850	U
59-50-7	4-Chloro-3-Methylphenol	850	U
91-57-6	2-Methylnaphthalene	850	U
77-47-4	Hexachlorocyclopentadiene	850	U
88-06-2	2,4,6-Trichlorophenol	850	U
95-95-4	2,4,5-Trichlorophenol	2100	U
91-58-7	2-Chloronaphthalene	850	U
88-74-4	2-Nitroaniline	2100	U
131-11-3	Dimethyl Phthalate	850	U
208-96-8	Acenaphthylene	850	U
606-20-2	2,6-Dinitrotoluene	850	U
99-09-2	3-Nitroaniline	2100	U
83-32-9	Acenaphthene	850	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF29

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541827

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GR041827B07

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: 61 decanted: (Y/N) N Date Extracted: 04/05/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/09/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	2100	U
132-64-9	Dibenzofuran	850	U
121-14-2	2,4-Dinitrotoluene	850	U
84-66-2	Diethylphthalate	850	U
7005-72-3	4-Chlorophenyl-phenylether	850	U
86-73-7	Fluorene	850	U
100-01-6	4-Nitroaniline	2100	U
534-52-1	4,6-Dinitro-2-Methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	850	U
101-55-3	4-Bromophenyl-phenylether	850	U
118-74-1	Hexachlorobenzene	850	U
87-86-5	Pentachlorophenol	2100	U
85-01-8	Phenanthrene	250	J
120-12-7	Anthracene	130	J
86-74-8	Carbazole	850	U
84-74-2	Di-n-Butylphthalate	850	U
206-44-0	Fluoranthene	570	J
129-00-0	Pyrene	580	J
85-68-7	Butylbenzylphthalate	850 ~~210~~	BJ U
91-94-1	3,3'-Dichlorobenzidine	850	U
56-55-3	Benzo(a)Anthracene	500	J
218-01-9	Chrysene	640	J
117-81-7	bis(2-Ethylhexyl)Phthalate	140	J
117-84-0	Di-n-Octyl Phthalate	91	J
205-99-2	Benzo(b)Fluoranthene	1000	X
207-08-9	Benzo(k)Fluoranthene	1000	X
50-32-8	Benzo(a)Pyrene	390	J
193-39-5	Indeno(1,2,3-cd)Pyrene	360	J
53-70-3	Dibenz(a,h)Anthracene	110	J
191-24-2	Benzo(g,h,i)Perylene	310	J

(1) - Cannot be separated from Diphenylamine

CL 5-20-9

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF29

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541827

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GR041827B07

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: 61 decanted: (Y/N) N Date Extracted: 04/05/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/09/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.7

Number TICs found: 23

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.57	510	J
2.	ALDOL	5.75	850	ABJU
3.	UNKNOWN	6.13	260	J
4.	ALDOL	6.20	340	AJ
5.	UNKNOWN	6.70	340	J
6.	HYDROXYBENZALDEHYDE	6.85	1500	J
7.	BENZENEDIOL	8.05	430	J
8.	METHYLBENZENDIOL	8.73	680	J
9.	UNKNOWN CARBOXYLIC ACID	10.75	430	J
10.	UNKNOWN HYDROCARBON	14.93	340	J
11.	LABORATORY ARTIFACT	15.37	170	J
12.	UNKNOWN HYDROCARBON	15.88	1000	J
13.	UNKNOWN	16.68	170	J
14.	UNKNOWN HYDROCARBON	17.07	940	J
15.	UNKNOWN HYDROCARBON	17.78	260	J
16.	UNKNOWN	18.17	1000	J
17.	UNKNOWN HYDROCARBON	18.67	5000	J
18.	BENZOFLUORANTHENE	19.25	600	J
19.	UNKNOWN	20.28	1200	J
20.	UNKNOWN	21.02	510	J
21.	UNKNOWN	21.15	1000	J
22.	UNKNOWN	21.93	510	J
23.	UNKNOWN	25.42	5500	J

5-21
CL

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF30

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541828

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GR041828B07

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: 37 decanted: (Y/N) N Date Extracted: 04/05/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/09/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	520	U
111-44-4	bis(2-Chloroethyl)Ether	520	U
95-57-8	2-Chlorophenol	520	U
541-73-1	1,3-Dichlorobenzene	520	U
106-46-7	1,4-Dichlorobenzene	520	U
95-50-1	1,2-Dichlorobenzene	520	U
95-48-7	2-Methylphenol	520	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	520	U
106-44-5	4-Methylphenol	410	J
621-64-7	N-Nitroso-Di-n-Propylamine	520	U
67-72-1	Hexachloroethane	520	U
98-95-3	Nitrobenzene	520	U
78-59-1	Isophorone	520	U
88-75-5	2-Nitrophenol	520	U
105-67-9	2,4-Dimethylphenol	520	U
111-91-1	bis(2-Chloroethoxy)Methane	520	U
120-83-2	2,4-Dichlorophenol	520	U
120-82-1	1,2,4-Trichlorobenzene	520	U
91-20-3	Naphthalene	520	U
106-47-8	4-Chloroaniline	520	U
87-68-3	Hexachlorobutadiene	520	U
59-50-7	4-Chloro-3-Methylphenol	520	U
91-57-6	2-Methylnaphthalene	520	U
77-47-4	Hexachlorocyclopentadiene	520	U
88-06-2	2,4,6-Trichlorophenol	520	U
95-95-4	2,4,5-Trichlorophenol	1300	U
91-58-7	2-Chloronaphthalene	520	U
88-74-4	2-Nitroaniline	1300	U
131-11-3	Dimethyl Phthalate	520	U
208-96-8	Acenaphthylene	520	U
606-20-2	2,6-Dinitrotoluene	520	U
99-09-2	3-Nitroaniline	1300	U
83-32-9	Acenaphthene	520	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF30

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541828

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GR041828B07

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: 37 decanted: (Y/N) N Date Extracted: 04/05/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/09/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1300	U
100-02-7	4-Nitrophenol	1300	U
132-64-9	Dibenzofuran	520	U
121-14-2	2,4-Dinitrotoluene	520	U
84-66-2	Diethylphthalate	520	U
7005-72-3	4-Chlorophenyl-phenylether	520	U
86-73-7	Fluorene	520	U
100-01-6	4-Nitroaniline	1300	U
534-52-1	4,6-Dinitro-2-Methylphenol	1300	U
86-30-6	N-Nitrosodiphenylamine (1)	520	U
101-55-3	4-Bromophenyl-phenylether	520	U
118-74-1	Hexachlorobenzene	520	U
87-86-5	Pentachlorophenol	1300	U
85-01-8	Phenanthrene	110	J
120-12-7	Anthracene	520	U
86-74-8	Carbazole	520	U
84-74-2	Di-n-Butylphthalate	520	U
206-44-0	Fluoranthene	140	J
129-00-0	Pyrene	110	J
85-68-7	Butylbenzylphthalate	520 ~~130~~	BJU
91-94-1	3,3'-Dichlorobenzidine	520	U
56-55-3	Benzo(a)Anthracene	82	J
218-01-9	Chrysene	93	J
117-81-7	bis(2-Ethylhexyl)Phthalate	100	J
117-84-0	Di-n-Octyl Phthalate	520	U
205-99-2	Benzo(b)Fluoranthene	180	JX
207-08-9	Benzo(k)Fluoranthene	180	JX
50-32-8	Benzo(a)Pyrene	79	J
193-39-5	Indeno(1,2,3-cd)Pyrene	520	U
53-70-3	Dibenz(a,h)Anthracene	520	U
191-24-2	Benzo(g,h,i)Perylene	520	U

CL 5-20-93

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF30

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541828

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GR041828B07

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: 37 decanted: (Y/N) N Date Extracted: 04/05/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/09/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 22

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL	5.75	580	ABJU
2.	ALDOL	6.20	160	AJU
3.	UNKNOWN	6.85	530	J
4.	UNKNOWN CARBOXYLIC ACID	10.75	210	J
5.	UNKNOWN HYDROCARBON	14.47	320	J
6.	UNKNOWN HYDROCARBON	14.95	740	J
7.	UNKNOWN HYDROCARBON	15.42	850	J
8.	UNKNOWN HYDROCARBON	15.90	1800	J
9.	UNKNOWN	15.97	630	J
10.	UNKNOWN HYDROCARBON	16.43	740	J
11.	UNKNOWN HYDROCARBON	17.07	1600	J
12.	UNKNOWN HYDROCARBON	17.80	690	J
13.	UNKNOWN	17.98	210	J
14.	UNKNOWN	18.17	420	J
15.	UNKNOWN HYDROCARBON	18.68	3400	J
16.	UNKNOWN	18.82	420	J
17.	UNKNOWN	18.87	740	J
18.	UNKNOWN HYDROCARBON	19.72	630	J
19.	UNKNOWN	21.02	1400	J
20.	UNKNOWN	21.95	1500	J
21.	UNKNOWN	22.60	630	J
22.	UNKNOWN	25.38	1200	J

CL 5-20-

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF31

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541829

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GR041829B07

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: 41 decanted: (Y/N) N Date Extracted: 04/05/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/09/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	110	J
111-44-4	bis(2-Chloroethyl)Ether	560	U
95-57-8	2-Chlorophenol	560	U
541-73-1	1,3-Dichlorobenzene	560	U
106-46-7	1,4-Dichlorobenzene	560	U
95-50-1	1,2-Dichlorobenzene	560	U
95-48-7	2-Methylphenol	560	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	560	U
106-44-5	4-Methylphenol	560	U
621-64-7	N-Nitroso-Di-n-Propylamine	560	U
67-72-1	Hexachloroethane	560	U
98-95-3	Nitrobenzene	560	U
78-59-1	Isophorone	560	U
88-75-5	2-Nitrophenol	560	U
105-67-9	2,4-Dimethylphenol	560	U
111-91-1	bis(2-Chloroethoxy)Methane	560	U
120-83-2	2,4-Dichlorophenol	560	U
120-82-1	1,2,4-Trichlorobenzene	560	U
91-20-3	Naphthalene	560	U
106-47-8	4-Chloroaniline	560	U
87-68-3	Hexachlorobutadiene	560	U
59-50-7	4-Chloro-3-Methylphenol	560	U
91-57-6	2-Methylnaphthalene	560	U
77-47-4	Hexachlorocyclopentadiene	560	U
88-06-2	2,4,6-Trichlorophenol	560	U
95-95-4	2,4,5-Trichlorophenol	1400	U
91-58-7	2-Chloronaphthalene	560	U
88-74-4	2-Nitroaniline	1400	U
131-11-3	Dimethyl Phthalate	560	U
208-96-8	Acenaphthylene	560	U
606-20-2	2,6-Dinitrotoluene	560	U
99-09-2	3-Nitroaniline	1400	U
83-32-9	Acenaphthene	560	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF31

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541829

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GR041829B07

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: 41 decanted: (Y/N) N Date Extracted: 04/05/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/09/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1400	U
100-02-7	4-Nitrophenol	1400	U
132-64-9	Dibenzofuran	560	U
121-14-2	2,4-Dinitrotoluene	560	U
84-66-2	Diethylphthalate	560	U
7005-72-3	4-Chlorophenyl-phenylether	560	U
86-73-7	Fluorene	560	U
100-01-6	4-Nitroaniline	1400	U
534-52-1	4,6-Dinitro-2-Methylphenol	1400	U
86-30-6	N-Nitrosodiphenylamine (1)	560	U
101-55-3	4-Bromophenyl-phenylether	560	U
118-74-1	Hexachlorobenzene	560	U
87-86-5	Pentachlorophenol	1400	U
85-01-8	Phenanthrene	110	J
120-12-7	Anthracene	560	U
86-74-8	Carbazole	560	U
84-74-2	Di-n-Butylphthalate	560	U
206-44-0	Fluoranthene	170	J
129-00-0	Pyrene	140	J
85-68-7	Butylbenzylphthalate	560 ~~160~~	BJU
91-94-1	3,3'-Dichlorobenzidine	560	U
56-55-3	Benzo(a)Anthracene	89	J
218-01-9	Chrysene	85	J
117-81-7	bis(2-Ethylhexyl)Phthalate	100	J
117-84-0	Di-n-Octyl Phthalate	560	U
205-99-2	Benzo(b)Fluoranthene	150	JX
207-08-9	Benzo(k)Fluoranthene	150	JX
50-32-8	Benzo(a)Pyrene	67	J
193-39-5	Indeno(1,2,3-cd)Pyrene	560	U
53-70-3	Dibenz(a,h)Anthracene	560	U
191-24-2	Benzo(g,h,i)Perylene	560	U

CL 5-20-93

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF31

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541829

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GR041829B07

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: 41 decanted: (Y/N) N Date Extracted: 04/05/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/09/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 21

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

CL 5-20-93

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL	5.77	730	ABJU
2.	UNKNOWN	6.70	280	J
3.	UNKNOWN	6.85	340	J
4.	UNKNOWN CARBOXYLIC ACID	10.80	1400	J
5.	UNKNOWN	11.47	110	J
6.	DDE	14.60	510	J
7.	UNKNOWN HYDROCARBON	14.95	340	J
8.	UNKNOWN HYDROCARBON	15.42	340	J
9.	UNKNOWN HYDROCARBON	15.90	1000	J
10.	UNKNOWN HYDROCARBON	16.43	230	J
11.	UNKNOWN	16.68	170	J
12.	UNKNOWN HYDROCARBON	17.07	1000	J
13.	UNKNOWN	17.78	230	J
14.	UNKNOWN	17.98	170	J
15.	UNKNOWN	18.17	2500	J
16.	UNKNOWN HYDROCARBON	18.68	3400	J
17.	UNKNOWN	20.28	620	J
18.	UNKNOWN	21.02	1200	J
19.	UNKNOWN	21.13	170	J
20.	UNKNOWN	21.93	280	J
21.	UNKNOWN	25.37	1400	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF32

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541830

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GR041830B07

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: 61 decanted: (Y/N) N Date Extracted: 04/05/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/09/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	850	U
111-44-4	bis(2-Chloroethyl)Ether	850	U
95-57-8	2-Chlorophenol	850	U
541-73-1	1,3-Dichlorobenzene	850	U
106-46-7	1,4-Dichlorobenzene	850	U
95-50-1	1,2-Dichlorobenzene	850	U
95-48-7	2-Methylphenol	850	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	850	U
106-44-5	4-Methylphenol	750	J
621-64-7	N-Nitroso-Di-n-Propylamine	850	U
67-72-1	Hexachloroethane	850	U
98-95-3	Nitrobenzene	850	U
78-59-1	Isophorone	850	U
88-75-5	2-Nitrophenol	850	U
105-67-9	2,4-Dimethylphenol	850	U
111-91-1	bis(2-Chloroethoxy)Methane	850	U
120-83-2	2,4-Dichlorophenol	850	U
120-82-1	1,2,4-Trichlorobenzene	850	U
91-20-3	Naphthalene	850	U
106-47-8	4-Chloroaniline	850	U
87-68-3	Hexachlorobutadiene	850	U
59-50-7	4-Chloro-3-Methylphenol	850	U
91-57-6	2-Methylnaphthalene	850	U
77-47-4	Hexachlorocyclopentadiene	850	U
88-06-2	2,4,6-Trichlorophenol	850	U
95-95-4	2,4,5-Trichlorophenol	2100	U
91-58-7	2-Chloronaphthalene	850	U
88-74-4	2-Nitroaniline	2100	U
131-11-3	Dimethyl Phthalate	850	U
208-96-8	Acenaphthylene	850	U
606-20-2	2,6-Dinitrotoluene	850	U
99-09-2	3-Nitroaniline	2100	U
83-32-9	Acenaphthene	130	J

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF32

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541830

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GR041830B07

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: 61 decanted: (Y/N) N Date Extracted: 04/05/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/09/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	2100	U
132-64-9	Dibenzofuran	850	U
121-14-2	2,4-Dinitrotoluene	850	U
84-66-2	Diethylphthalate	850	U
7005-72-3	4-Chlorophenyl-phenylether	850	U
86-73-7	Fluorene	150	J
100-01-6	4-Nitroaniline	2100	U
534-52-1	4,6-Dinitro-2-Methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	850	U
101-55-3	4-Bromophenyl-phenylether	850	U
118-74-1	Hexachlorobenzene	850	U
87-86-5	Pentachlorophenol	2100	U
85-01-8	Phenanthrene	1700	
120-12-7	Anthracene	350	J
86-74-8	Carbazole	270	J
84-74-2	Di-n-Butylphthalate	120	J
206-44-0	Fluoranthene	2900	
129-00-0	Pyrene	2000	
85-68-7	Butylbenzylphthalate	850 ~~300~~	BJ U
91-94-1	3,3'-Dichlorobenzidine	850	U
56-55-3	Benzo(a)Anthracene	1500	
218-01-9	Chrysene	1300	
117-81-7	bis(2-Ethylhexyl)Phthalate	130	J
117-84-0	Di-n-Octyl Phthalate	850	U
205-99-2	Benzo(b)Fluoranthene	2400	X
207-08-9	Benzo(k)Fluoranthene	2400	X
50-32-8	Benzo(a)Pyrene	990	
193-39-5	Indeno(1,2,3-cd)Pyrene	640	J
53-70-3	Dibenz(a,h)Anthracene	280	J
191-24-2	Benzo(g,h,i)Perylene	670	J

CL 5-20-93

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ETF32

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: _____ SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541830

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GR041830B07

Level: (low/med) LOW Date Received: 03/25/93

% Moisture: 61 decanted: (Y/N) N Date Extracted: 04/05/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/09/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3

Number TICs found: 22

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

CL 5-20-9

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL	5.73	600	ABJU
2.	ALDOL	6.17	340	AJ U
3.	UNKNOWN	6.68	510	J
4.	UNKNOWN	6.83	770	J
5.	UNKNOWN	7.83	340	J
6.	UNKNOWN	12.77	340	J
7.	METHYLANTHRACENE	13.25	510	J
8.	PAH	13.38	340	J
9. 84-65-1	9,10-ANTHRACENEDIONE	13.67	260	JN
10.	UNKNOWN HYDROCARBON	14.43	340	J
11.	UNKNOWN HYDROCARBON	14.92	770	J
12.	UNKNOWN HYDROCARBON	15.40	940	J
13.	UNKNOWN HYDROCARBON	15.88	1600	J
14.	UNKNOWN HYDROCARBON	16.42	600	J
15.	UNKNOWN	16.68	340	J
16.	UNKNOWN HYDROCARBON	17.05	1000	J
17.	UNKNOWN HYDROCARBON	17.80	340	J
18.	UNKNOWN	18.17	1300	J
19.	UNKNOWN HYDROCARBON	18.67	4000	J
20.	BENZOFLUORANTHENE	19.27	940	J
21.	UNKNOWN	21.03	2800	J
22.	UNKNOWN	25.45	2600	J

2F
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

GC Column (1): RTX-1701 ID: 0.53(mm) GC Column (2): DB-608 ID: 0.53(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	ETF23	68	96	230*	100			1
02	ETF28MS	85D	140D	200D	88D			0
03	ETF24	29*	37*	160*	96			3
04	ETF28MSD	87D	100D	200D	98D			0
05	ETF25	62	79	380*	220*			2
06	ETF26	72	93	430*	93			1
07	ETF28	92D	110D	220D	96D			0
08	ETF29	66	97	140	99			0
09	ETF30	58*	120	100	110			1
10	ETF31	94D	120D	270D	0D			0
11	ETF32	64	90	190*	74			1
12	PBLK97	72	100	110	110			0
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(60-150)
DCB = Decachlorobiphenyl	(60-150)

Column to be used to flag recovery values.
* Values outside of QC Limits
D Surrogate diluted out.

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix Spike - EPA Sample No.: ETF28

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
gamma-BHC (Lindane)	32.356	0.00	25	77	46-127
Heptachlor	32.356	0.00	21	65	35-130
Aldrin	32.356	0.00	29	90	34-132
Dieldrin	64.712	0.00	53	82	31-134
Endrin	64.712	0.00	44	68	42-139
4,4'-DDT	64.712	250	290	62	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	32.571	26	80	4	50	46-127
Heptachlor	32.571	22	68	5	31	35-130
Aldrin	32.571	29	89	1	43	34-132
Dieldrin	65.142	55	84	2	38	31-134
Endrin	65.142	46	71	4	45	42-139
4,4'-DDT	65.142	290	61	2	50	23-134

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS:

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK97

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Lab Sample ID: 543812 Lab File ID: PC043812

Matrix: (soil/water) SOIL Extraction: (SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) N Date Extracted: 04/02/93

Date Analyzed (1): 04/08/93 Date Analyzed (2): 04/08/93

Time Analyzed (1): 1119 Time Analyzed (2): 1119

Instrument ID (1): VARIAN09 Instrument ID (2): VARIAN08

GC Column (1): RTX-1701 ID: 0.53 (mm) GC Column (2): DB-608 ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	ETF23	541487	04/08/93	04/08/93
02	ETF24	541495	04/08/93	04/08/93
03	ETF25	541498	04/08/93	04/08/93
04	ETF26	541499	04/08/93	04/08/93
05	ETF29	541827	04/08/93	04/08/93
06	ETF30	541828	04/08/93	04/08/93
07	ETF32	541830	04/08/93	04/08/93
08	ETF28MS	541494 D50	04/09/93	04/09/93
09	ETF28MSD	541496 D50	04/08/93	04/08/93
10	ETF28	541817 D50	04/09/93	04/09/93
11	ETF31	541829 D50	04/08/93	04/08/93
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

Comments:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK97

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 543812

Sample wt/vol: 30.00 (g/ml) G Lab File ID: PC043812A06

% Moisture: decanted: (Y/N) Date Received:

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 04/02/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 04/08/93

Injection Volume: 2.0 (uL) Dilution Factor: 1

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.3	U
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-93-4	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF23

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541487

Sample wt/vol: 30.50 (g/ml) G Lab File ID:

% Moisture: 36 decanted: (Y/N) N Date Received: 03/24/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 04/02/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 04/08/93

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) Y pH: 7.2 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.6	U
319-85-7	beta-BHC	2.6	U
319-86-8	delta-BHC	2.6	U
58-89-9	gamma-BHC (Lindane)	2.6	U
76-44-8	Heptachlor	2.6	U
309-00-2	Aldrin	2.6	U
1024-57-3	Heptachlor epoxide	1.4	JP
959-98-8	Endosulfan I	2.6	U
60-57-1	Dieldrin	3.1	JP
72-55-9	4,4'-DDE	3.6	JP
72-20-8	Endrin	0.73	JP
33213-65-9	Endosulfan II	5.1	U
72-54-8	4,4'-DDD	19	P
1031-07-8	Endosulfan sulfate	0.51	JP
50-29-3	4,4'-DDT	14	P
72-43-5	Methoxychlor	12	JP
53494-70-5	Endrin ketone	8.9	P
7421-93-4	Endrin aldehyde	5.1	U
5103-71-9	alpha-Chlordane	5.9	P
5103-74-2	gamma-Chlordane	11	NA
8001-35-2	Toxaphene	260	U
12674-11-2	Aroclor-1016	51	U
11104-28-2	Aroclor-1221	100	U
11141-16-5	Aroclor-1232	51	U
53469-21-9	Aroclor-1242	51	U
12672-29-6	Aroclor-1248	51	U
11097-69-1	Aroclor-1254	51	U
11096-82-5	Aroclor-1260	51	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF24

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541495

Sample wt/vol: 30.00 (g/ml) G Lab File ID:

% Moisture: 39 decanted: (Y/N) N Date Received: 03/24/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 04/02/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 04/08/93

Injection Volume: 2.0 (uL) Dilution Factor: 1

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.8	U
319-85-7	beta-BHC	2.8	U
319-86-8	delta-BHC	2.8	U
58-89-9	gamma-BHC (Lindane)	2.8	U
76-44-8	Heptachlor	2.8	U
309-00-2	Aldrin	2.8	U
1024-57-3	Heptachlor epoxide	2.8	U
959-98-8	Endosulfan I	2.8	U
60-57-1	Dieldrin	25	P
72-55-9	4,4'-DDE	5.4	U
72-20-8	Endrin	5.4	JP
33213-65-9	Endosulfan II	1.1	JP
72-54-8	4,4'-DDD	4.1	JP
1031-07-8	Endosulfan sulfate	5.4	U
50-29-3	4,4'-DDT	11	P
72-43-5	Methoxychlor	50	P
53494-70-5	Endrin ketone	12	P
7421-93-4	Endrin aldehyde	5.4	U
5103-71-9	alpha-Chlordane	11	[illegible]
5103-74-2	gamma-Chlordane	16	P
8001-35-2	Toxaphene	280	U
12674-11-2	Aroclor-1016	54	U
11104-28-2	Aroclor-1221	110	U
11141-16-5	Aroclor-1232	54	U
53469-21-9	Aroclor-1242	54	U
12672-29-6	Aroclor-1248	54	U
11097-69-1	Aroclor-1254	54	U
11096-82-5	Aroclor-1260	54	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF25

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541498

Sample wt/vol: 30.30 (g/ml) G Lab File ID:

% Moisture: 40 decanted: (Y/N) N Date Received: 03/24/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 04/02/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 04/08/93

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) Y pH: 8.1 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.8	U
319-85-7	beta-BHC	2.8	U
319-86-8	delta-BHC	2.8	U
58-89-9	gamma-BHC (Lindane)	2.8	U
76-44-8	Heptachlor	2.8	U
309-00-2	Aldrin	2.8	U
1024-57-3	Heptachlor epoxide	2.8	U
959-98-8	Endosulfan I	2.8	U
60-57-1	Dieldrin	50	P
72-55-9	4,4'-DDE	1.3	JP
72-20-8	Endrin	17	
33213-65-9	Endosulfan II	3.0	JP
72-54-8	4,4'-DDD	6.6	P
1031-07-8	Endosulfan sulfate	5.4	U
50-29-3	4,4'-DDT	18	P
72-43-5	Methoxychlor	120	P
53494-70-5	Endrin ketone	5.4	U
7421-93-4	Endrin aldehyde	5.4	U
5103-71-9	alpha-Chlordane	15	
5103-74-2	gamma-Chlordane	34	P
8001-35-2	Toxaphene	280	U
12674-11-2	Aroclor-1016	54	U
11104-28-2	Aroclor-1221	110	U
11141-16-5	Aroclor-1232	54	U
53469-21-9	Aroclor-1242	54	U
12672-29-6	Aroclor-1248	54	U
11097-69-1	Aroclor-1254	54	U
11096-82-5	Aroclor-1260	54	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF26

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541499

Sample wt/vol: 30.50 (g/ml) G Lab File ID:

% Moisture: 54 decanted: (Y/N) N Date Received: 03/24/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 04/02/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 04/08/93

Injection Volume: 2.0 (uL) Dilution Factor: 1

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	3.6	U
319-85-7	beta-BHC	3.6	U
319-86-8	delta-BHC	3.6	U
58-89-9	gamma-BHC (Lindane)	3.6	U
76-44-8	Heptachlor	3.6	U
309-00-2	Aldrin	3.6	U
1024-57-3	Heptachlor epoxide	1.6	JP
959-98-8	Endosulfan I	3.6	U
60-57-1	Dieldrin	1.2	JP
72-55-9	4,4'-DDE	3.3	JP
72-20-8	Endrin	0.59	JP
33213-65-9	Endosulfan II	0.64	JP
72-54-8	4,4'-DDD	7.1	U
1031-07-8	Endosulfan sulfate	7.1	U
50-29-3	4,4'-DDT	28	P
72-43-5	Methoxychlor	24	JP
53494-70-5	Endrin ketone	11	P
7421-93-4	Endrin aldehyde	7.1	U
5103-71-9	alpha-Chlordane	2.2	JP
5103-74-2	gamma-Chlordane	6.4	P
8001-35-2	Toxaphene	360	U
12674-11-2	Aroclor-1016	71	U
11104-28-2	Aroclor-1221	140	U
11141-16-5	Aroclor-1232	71	U
53469-21-9	Aroclor-1242	71	U
12672-29-6	Aroclor-1248	71	U
11097-69-1	Aroclor-1254	71	U
11096-82-5	Aroclor-1260	71	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF28

Lab Name: COMPUCHEM, RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541817 D50

Sample wt/vol: 30.50 (g/ml) G Lab File ID: PC041817A06

% Moisture: 49 decanted: (Y/N) N Date Received: 03/25/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 04/02/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 04/09/93

Injection Volume: 2.0 (uL) Dilution Factor: 5

GPC Cleanup: (Y/N) Y pH: 6.7 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	16	U
319-85-7	beta-BHC	16	U
319-86-8	delta-BHC	16	U
58-89-9	gamma-BHC (Lindane)	16	U
76-44-8	Heptachlor	16	U
309-00-2	Aldrin	16	U
1024-57-3	Heptachlor epoxide	16	U
959-98-8	Endosulfan I	16	U
60-57-1	Dieldrin	32	U
72-55-9	4,4'-DDE	480	PC
72-20-8	Endrin	32	U
33213-65-9	Endosulfan II	32	U
72-54-8	4,4'-DDD	270	
1031-07-8	Endosulfan sulfate	32	U
50-29-3	4,4'-DDT	250	C
72-43-5	Methoxychlor	18	JP
53494-70-5	Endrin ketone	7.6	JP
7421-93-4	Endrin aldehyde	32	U
5103-71-9	alpha-Chlordane	16	U
5103-74-2	gamma-Chlordane	16	U
8001-35-2	Toxaphene	1600	U
12674-11-2	Aroclor-1016	320	U
11104-28-2	Aroclor-1221	650	U
11141-16-5	Aroclor-1232	320	U
53469-21-9	Aroclor-1242	320	U
12672-29-6	Aroclor-1248	320	U
11097-69-1	Aroclor-1254	320	U
11096-82-5	Aroclor-1260	320	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF29

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541827

Sample wt/vol: 30.40 (g/ml) G Lab File ID:

% Moisture: 61 decanted: (Y/N) N Date Received: 03/25/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 04/02/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 04/08/93

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) Y pH: 6.7 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	4.3	U
319-85-7	beta-BHC	4.3	U
319-86-8	delta-BHC	4.3	U
58-89-9	gamma-BHC (Lindane)	4.3	U
76-44-8	Heptachlor	4.3	U
309-00-2	Aldrin	4.3	U
1024-57-3	Heptachlor epoxide	1.1	JP
959-98-8	Endosulfan I	4.3	U
60-57-1	Dieldrin	2.3	JP
72-55-9	4,4'-DDE	45	
72-20-8	Endrin	8.4	U
33213-65-9	Endosulfan II	8.4	U
72-54-8	4,4'-DDD	14	
1031-07-8	Endosulfan sulfate	8.4	U
50-29-3	4,4'-DDT	35	P
72-43-5	Methoxychlor	23	JP
53494-70-5	Endrin ketone	8.4	U
7421-93-4	Endrin aldehyde	8.4	U
5103-71-9	alpha-Chlordane	4.3	U
5103-74-2	gamma-Chlordane	4.3	U
8001-35-2	Toxaphene	430	U
12674-11-2	Aroclor-1016	84	U
11104-28-2	Aroclor-1221	170	U
11141-16-5	Aroclor-1232	84	U
53469-21-9	Aroclor-1242	84	U
12672-29-6	Aroclor-1248	84	U
11097-69-1	Aroclor-1254	84	U
11096-82-5	Aroclor-1260	84	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF30

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541828

Sample wt/vol: 30.50 (g/ml) G Lab File ID: PC041828A06

% Moisture: 37 decanted: (Y/N) N Date Received: 03/25/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 04/02/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 04/08/93

Injection Volume: 2.0 (uL) Dilution Factor: 1

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	0.18	JP
319-85-7	beta-BHC	2.7	U
319-86-8	delta-BHC	2.7	U
58-89-9	gamma-BHC (Lindane)	2.7	U
76-44-8	Heptachlor	2.7	U
309-00-2	Aldrin	2.7	U
1024-57-3	Heptachlor epoxide	2.7	U
959-98-8	Endosulfan I	2.7	U
60-57-1	Dieldrin	5.2	U
72-55-9	4,4'-DDE	78	PC
72-20-8	Endrin	5.2	U
33213-65-9	Endosulfan II	5.2	U
72-54-8	4,4'-DDD	12	
1031-07-8	Endosulfan sulfate	5.2	U
50-29-3	4,4'-DDT	27	
72-43-5	Methoxychlor	5.4	JP
53494-70-5	Endrin ketone	5.2	U
7421-93-4	Endrin aldehyde	5.2	U
5103-71-9	alpha-Chlordane	2.7	U
5103-74-2	gamma-Chlordane	2.7	U
8001-35-2	Toxaphene	270	U
12674-11-2	Aroclor-1016	52	U
11104-28-2	Aroclor-1221	100	U
11141-16-5	Aroclor-1232	52	U
53469-21-9	Aroclor-1242	52	U
12672-29-6	Aroclor-1248	52	U
11097-69-1	Aroclor-1254	52	U
11096-82-5	Aroclor-1260	52	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF31

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541829 D50

Sample wt/vol: 30.40 (g/ml) G Lab File ID: PC041829A06

% Moisture: 41 decanted: (Y/N) N Date Received: 03/25/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 04/02/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 04/08/93

Injection Volume: 2.0 (uL) Dilution Factor: 5

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	14	U
319-85-7	beta-BHC	14	U
319-86-8	delta-BHC	14	U
58-89-9	gamma-BHC (Lindane)	14	U
76-44-8	Heptachlor	14	U
309-00-2	Aldrin	14	U
1024-57-3	Heptachlor epoxide	14	U
959-98-8	Endosulfan I	14	U
60-57-1	Dieldrin	28	U
72-55-9	4,4'-DDE	430	PC
72-20-8	Endrin	28	U
33213-65-9	Endosulfan II	28	U
72-54-8	4,4'-DDD	14	JP
1031-07-8	Endosulfan sulfate	28	U
50-29-3	4,4'-DDT	280	C
72-43-5	Methoxychlor	26	JP
53494-70-5	Endrin ketone	28	U
7421-93-4	Endrin aldehyde	28	U
5103-71-9	alpha-Chlordane	14	U
5103-74-2	gamma-Chlordane	14	U
8001-35-2	Toxaphene	1400	U
12674-11-2	Aroclor-1016	280	U
11104-28-2	Aroclor-1221	560	U
11141-16-5	Aroclor-1232	280	U
53469-21-9	Aroclor-1242	280	U
12672-29-6	Aroclor-1248	280	U
11097-69-1	Aroclor-1254	280	U
11096-82-5	Aroclor-1260	280	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ETF32

Lab Name: COMPUCHEM,RTP Contract: 68D00159

Lab Code: COMPU Case No.: 19635 SAS No.: SDG No.: ETF23

Matrix: (soil/water) SOIL Lab Sample ID: 541830

Sample wt/vol: 30.40 (g/ml) G Lab File ID:

% Moisture: 61 decanted: (Y/N) N Date Received: 03/25/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 04/02/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 04/08/93

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) Y pH: 7.3 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	4.3	U
319-85-7	beta-BHC	4.3	U
319-86-8	delta-BHC	4.3	U
58-89-9	gamma-BHC (Lindane)	4.3	U
76-44-8	Heptachlor	4.3	U
309-00-2	Aldrin	4.3	U
1024-57-3	Heptachlor epoxide	4.3	U
959-98-8	Endosulfan I	4.3	U
60-57-1	Dieldrin	1.1	JP
72-55-9	4,4'-DDE	7.2	JP
72-20-8	Endrin	2.9	J
33213-65-9	Endosulfan II	8.4	U
72-54-8	4,4'-DDD	47	
1031-07-8	Endosulfan sulfate	8.4	U
50-29-3	4,4'-DDT	45	P
72-43-5	Methoxychlor	11	JP
53494-70-5	Endrin ketone	8.4	U
7421-93-4	Endrin aldehyde	8.4	U
5103-71-9	alpha-Chlordane	1.4	JP
5103-74-2	gamma-Chlordane	2.4	JP
8001-35-2	Toxaphene	430	U
12674-11-2	Aroclor-1016	84	U
11104-28-2	Aroclor-1221	170	U
11141-16-5	Aroclor-1232	84	U
53469-21-9	Aroclor-1242	84	U
12672-29-6	Aroclor-1248	84	U
11097-69-1	Aroclor-1254	84	U
11096-82-5	Aroclor-1260	84	U

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. _____ (2) CERCLIS No. OH

Case No. 19635 Site Name Location: Treasure Island-Man

Contractor or EPA Lab: Compuchem Data User: PRC

No. of Samples: 9 Date Samples or Data Received: 4-23-93

Have Chain-of-Custody records been received? YES ✓ NO ___
Have traffic reports or packing lists been received? YES ✓ NO ___
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO ___
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ___
No. of samples claimed: 9 No. of samples received: 9

Received by: Lynette Burnett Date: 4-23-93

Received by LSSS: Dorothy M. May Date: 4/23/93

Review started: 5/19/93 Reviewer Signature: M. Cecilia Luckett

Total time spent on review: 15 hrs. Date review completed: 5/21/93

Copied by: Robert Feyrer Date: 5-25-93

Mailed to user by: A B Harris Date: 5-26-93

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ESCRL

Data received by: Mildred Jackson Date: MAY 28 1993

Data review received by: _____ Date: _____
Inorganic Data Complete( ) Suitable for Intended Purpose( ) ✓ if OK
Organic Data Complete ( ) Suitable for Intended Purpose( ) list
Dioxin Data Complete ( ) Suitable for Intended Purpose( ) prblms
SAS Data Complete ( ) Suitable for Intended Purpose( ) below.
PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files Date: _____