100256

WESTON

Appendix B

Data Summary Forms

DATA SUMMARY FORM: VOLATILES 1

WATER SAMPLES
(ug/L)

Site Name: Standard Chlorine

Case #: 13413 Sampling Date(s): 1/4/90

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

CRQL	COMPOUND	CBF79		CBF80	
	Dilution Factor	2.0		1.0	
	Location	EQB-2 Equipment Blank		TB-210 Trip Blank	
10	Chloromethane				
10	Bromomethane				
10	*Vinyl Chloride				
10	Chloroethane				
5	*Methylene Chloride	280	J	7	B
10	Acetone	37	B	15	B
5	Carbon Disulfide				
5	*1,1-Dichloroethene				
5	1,1-Dichloroethane				
5	*Total-1,2-Dichloroethene	7	J	3	B
5	Chloroform	14			
5	*1,2-Dichloroethane		UJ		UJ
10	*2-Butanone				
5	*1,1,1-Trichloroethane		UJ		UJ
5	*Carbon Tetrachloride		UJ		UJ
10	Vinyl Acetate		UJ		UJ
5	Bromodichloromethane				

CRDL = Contract Required Detection Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITI

revised 1

AR301131

DATA SUMMARY FORM: VOLATILES 2

WATER SAMPLES
(ug/L)

ite Name: Standard Chlorine

ase #: 13413 Sampling Date(s): 1/4/90

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

	Sample No.	CBF79		CBF80															
	Dilution Factor	2.0		1.0															
	Location	EQB-2 Equipment Blank		TB-210 Trip Blank															
QL	COMPOUND																		
	*1,2-Dichloropropane																		
	Cis-1,3-Dichloropropene																		
	Trichloroethene																		
	Dibromochloromethane																		
	1,1,2-Trichloroethane																		
	*Benzene																		
	Trans-1,3-Dichloropropene																		
	Bromoform																		
0	4-Methyl-2-pentanone		UJ		UJ														
0	2-Hexanone																		
	*Tetrachloroethene																		
	1,1,2,2-Tetrachloroethane																		
	*Toluene																		
	*Chlorobenzene																		
	*Ethylbenzene																		
	*Styrene																		
5	*Total Xylenes	7		4	J														

CRQL = Contract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

AR301132

DATA SUMMARY FORM: B N A S 1

WATER SAMPLES
(ug/L)

Site Name: Standard Chlorine

Case #: 13413 Sampling Date(s): 1/4/90

To calculate sample quant l limit:
(CRQL * Dilution Factor)

Sample No.	CBF79																			
Dilution Factor	1.0																			
Location	EQB-2 Equipment Blank																			
COMPOUND																				
Phenol																				
bis(2-Chloroethyl)ether																				
2-Chlorophenol																				
* 1,3-Dichlorobenzene																				
* 1,4-Dichlorobenzene																				
Benzyl Alcohol																				
1,2-Dichlorobenzene																				
2-Methylphenol																				
bis(2-Chloroisopropyl)ether																				
4-Methylphenol																				
N-Nitroso-di n propylamine																				
Hexachloroethane																				
Nitrobenzene																				
Isophorone																				
2-Nitrophenol																				
2,4 Dimethylphenol																				
Benzoic Acid		UJ																		
bis(2-Chloroethoxy)methane																				
2,4 Dichlorophenol																				
1,2,4-Trichlorobenzene																				
Naphthalene																				
4-Chloroaniline																				

CRQL* = Contract Required Detection Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

AR301133

DATA SUMMARY FORM: B N A S 2

WATER SAMPLES
(ug/L)

Site Name: Standard Chlorine

Case #: 13413 Sampling Date(s): 1/4/90

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

	Sample No.	CBF79
	Dilution Factor	1.0
	Location	EQB-2 Equipment Blank
CRQL	COMPOUND	
10	Hexachlorobutadiene	
10	4-Chloro-3-methylphenol	
10	2-Methylnaphthalene	
10	Hexachlorocyclopentadiene	
10	2,4,6-Trichlorophenol	
50	2,4,5-Trichlorophenol	
10	2-Chloronaphthalene	
50	2-Nitroaniline	
10	Dimethylphthalate	
10	Acenaphthylene	
10	2,6-Dinitrotoluene	
50	3-Nitroaniline	
10	Acenaphthene	
50	2,4-Dinitrophenol	UJ
50	4-Nitrophenol	
10	Dibenzofuran	
10	2,4-Dinitrotoluene	
10	Diethylphthalate	
10	4-Chlorophenyl phenylether	
10	Fluorene	
50	4-Nitroaniline	
50	4,6-Dinitro-2-methylphenol	

CRDL = Contract Required Detection Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

AR301131

DATA SUMMARY FORM: B N A S 3

WATER SAMPLES
(ug/L)

Site Name: Standard Chlorine

Case #: 13413 Sampling Date(s): 1/4/90

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

	Sample No.	CBF79																			
	Dilution Factor	1.0																			
	Location	EQB-2 Equipment Blank																			
RDL	COMPOUND																				
10	N-Nitrosodiphenylamine																				
10	4-Bromophenyl-phenylether																				
10	*Hexachlorobenzene																				
50	*Pentachlorophenol																				
10	Phenanthrene																				
10	Anthracene																				
10	Di-n-butylphthalate																				
10	Fluoranthene																				
10	Pyrene																				
10	Butylbenzylphthalate																				
20	3,3-Dichlorobenzidine																				
10	Benzo(a)anthracene																				
10	Chrysene																				
10	bis(2-Ethylhexyl)phthalate																				
10	Di-n-octylphthalate																				
10	Benzo(b)fluoranthene																				
10	Benzo(k)fluoranthene																				
10	Benzo(a)pyrene																				
10	Indeno(1,2,3-cd)pyrene																				
10	Dibenz(a,h)anthracene																				
10	Benzo(g,h,i)perylene																				

CRDL = Contract Required Detection Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

AR301135

DATA SUMMARY FORM: PESTICIDES AND PCBS

Site Name: Standard Chlorine

Case #: 13413 Sampling Date(s): 1/4/90

WATER SAMPLES
(ug/L)

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

	Sample No.	CBF79																			
	Dilution Factor	1.0																			
	Location	EQB-2 Equipment Blank																			
QL	COMPOUND																				
.05	alpha-BHC																				
.05	beta-BHC																				
.05	delta-BHC																				
.05	*Gamma-BHC (Lindane)																				
.05	*Heptachlor																				
.05	Aldrin																				
.05	Heptachlor Epoxide																				
.05	Endosulfan I																				
.10	Dieldrin																				
.10	4,4'-DDE																				
.10	*Endrin																				
.10	Endosulfan II																				
0.10	4,4'-DDD																				
0.10	Endosulfan Sulfate																				
0.10	4,4'-DDT																				
0.5	*Methoxychlor																				
0.10	Endrin ketone																				
0.5	*Alpha-Chlordane																				
0.5	*Gamma-Chlordane																				
1.0	*Toxaphene																				
0.5	*Aroclor-1016																				
0.5	*Aroclor-1221																				
0.5	*Aroclor-1232																				
0.5	*Aroclor-1242																				
0.5	*Aroclor-1248																				
1.0	*Aroclor-1254																				
1.0	*Aroclor-1260																				

CRQL = Contract Required Detection Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

AR301136

DATA SUMMARY FORM: VOLATILES 1

Site Name: Standard Chlorine

Case #: 13413 Sampling Date(s): 1/4-1/5/90

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation lim
(CRQL * Dilution Factor) / ((100 - moisture)/100)

	Sample No.	CBF72		CBF73		CBF74		CBF75		CBF76		CBF77		CBF78					
	Dilution Factor	125		125		125		125		1563		1250		1250					
	% Moisture	28		29		29		52		23		44		60					
	Location	WS-1		WS-2 Field Dup of CBF72		WS-3		WS-4		WS-5		WS-6		WS-7					
RQL	COMPOUND																		
10	Chloromethane										UJ		UJ		UJ				
10	Bromomethane										↓		↓		↓				
10	Vinyl Chloride										↓		↓		↓				
10	Chloroethane										↓		↓		↓				
5	Methylene Chloride	670	B	1100	B	1500	B	1500	B	14000	B	19000	B	28000	B				
10	Acetone		UJ		UJ	3700	B	6300	B	29000	B	28000	B	78000	B				
5	Carbon Disulfide										UJ		UJ		UJ				
5	1,1-Dichloroethene										↓		↓		↓				
5	1,1-Dichloroethane										↓		↓		↓				
5	Total-1,2-Dichloroethene	450	B	470	B	470	B	680	B	5300	B	5800	B	7400	B				
5	Chloroform										UJ		UJ		UJ				
5	1,2-Dichloroethane										↓		↓		↓				
10	2-Butanone		R		R		R		R		R		R		R				
5	1,1,1-Trichloroethane										UJ		UJ		UJ				
5	Carbon Tetrachloride										↓		↓		↓				
10	Vinyl Acetate		UJ		UJ		UJ		UJ										
5	Bromodichloromethane										↓		↓		↓				

CRQL = Contract Required Detection Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

DATA SUMMARY FORM: VOLATILES 2

Site Name: Standard Chlorine

SOIL SAMPLES (ug/Kg)

Case #: 13413 Sampling Date(s): 1/4-1/5/90

To calculate sample quantitation l
(CRQL * Dilution Factor) / ((100 moisture)/100)

1/5 →

	Sample No.	CBF72		CBF73		CBF74		CBF75		CBF76		CBF77		CBF78					
	Dilution Factor	125		125		125		125		1563		1250		1250					
	% Moisture	28		29		29		52		23		44		60					
	Location	WS-1		WS-2 Field Dup of CBF72		WS-3		WS-4		WS-5		WS-6		WS-7					
CRQL	COMPOUND																		
5	1,2-Dichloropropane										UJ		UJ		UJ				
5	Cis-1,3-Dichloropropene																		
5	Trichloroethene																		
5	Dibromochloromethane																		
5	1,1,2-Trichloroethane																		
5	Benzene	5800		27000		17000				5600	J	19000	J	70000	J				
5	Trans-1,3-Dichloropropene										UJ		UJ		UJ				
5	Bromoform																		
10	4-Methyl-2-pentanone																		
10	2-Hexanone																		
5	Tetrachloroethene																		
5	1,1,2,2-Tetrachloroethane																		
5	Toluene	230	J	280	J	210	J												
5	Chlorobenzene	29000		34000		28000		1200	J	300000	J	270000	J	240000	J				
5	Ethylbenzene										UJ		UJ		UJ				
5	Styrene										UJ		UJ		UJ				
5	Total Xylenes	560	B					880	B	8400	B	7800	B	11000	B				

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

AR301138

DATA SUMMARY FORM: B N A S 1

SOIL SAMPLES (ug/Kg)

Site Name: Standard Chlorine

Case #: 13413 Sampling Date(s): 1/4-1/5/90

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

CRQL	COMPOUND	CBF72		CBF73		CBF74		CBF75		CBF76		CBF77		CBF78					
	Sample No.	CBF72		CBF73		CBF74		CBF75		CBF76		CBF77		CBF78					
	Dilution Factor	2.0		2.0		4.0		2.0		60		2.0		4.0					
	% Moisture	28		29		29		52		23		44		80					
	Location	WS-1		WS-2 Field Dup of CBF72		WS-3		WS-4		WS-5		WS-6		WS-7					
330	Phenol																		
330	bis(2-Chloroethyl)ether				UJ				UJ		UJ		UJ						
330	2-Chlorophenol																		
330	1,3-Dichlorobenzene	450	J	450	J	11000		2700		27000		4700		33000					
330	1,4-Dichlorobenzene	1300		1400		27000		9100		310000		11000		100000					
330	Benzyl Alcohol																		
330	1,2-Dichlorobenzene					8200		2600		26000	J	1100	J	20000					
330	2-Methylphenol																		
330	bis(2-Chloroisopropyl)ether				UJ				UJ		UJ		UJ						
330	4-Methylphenol																		
330	N-Nitroso-di-n-propylamine				UJ				UJ		UJ		UJ						
330	Hexachloroethane																		
330	Nitrobenzene																		
330	Isophorone																		
330	2-Nitrophenol																		
330	2,4-Dimethylphenol																		
1600	Benzoic Acid		UJ				UJ								UJ				
330	bis(2-Chloroethoxy)methane																		
330	2,4-Dichlorophenol																		
330	1,2,4-Trichlorobenzene	120	J	130	J	16000		9000		310000		10000		87000					
330	Naphthalene																		
330	4-Chloroaniline																		

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

AR301139

DATA SUMMARY FORM: B N A S 2

Site Name: Standard Chlorine

Case #: 13413 Sampling Date(s): 1/4-1/5/90

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation (CRQL * Dilution Factor) / ((10 moisture)/100)

	Sample No.	CBF72		CBF73		CBF74		CBF75		CBF76		CBF77		CBF78					
	Dilution Factor	2.0		2.0		4.0		2.0		60		2.0		4.0					
	% Moisture	28		29		29		52		23		44		80					
	Location	WS-1		WS-2 Field Dup of CBF72		WS-3		WS-4		WS-5		WS-6		WS-7					
CRQL	COMPOUND																		
330	Hexachlorobutadiene																		
330	4-Chloro-3-methylphenol																		
330	2-Methylnaphthalene																		
330	Hexachlorocyclopentadiene																		
330	2,4,6-Trichlorophenol																		
1600	2,4,5-Trichlorophenol																		
330	2-Chloronaphthalene																		
1600	2-Nitroaniline				UJ				UJ		UJ		UJ						
330	Dimethylphthalate																		
330	Acenaphthylene																		
330	2,6-Dinitrotoluene																		
1600	3-Nitroaniline																		
330	Acenaphthene																		
1600	2,4-Dinitrophenol		UJ		UJ		UJ		UJ		UJ		UJ		UJ				
1600	4-Nitrophenol		UJ																
330	Dibenzofuran																		
330	2,4-Dinitrotoluene																		
330	Diethylphthalate																		
330	4-Chlorophenyl-phenylether																		
330	Fluorene																		
1600	4-Nitroaniline																		
1600	4,6-Dinitro-2-methylphenol																		

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

DATA SUMMARY FORM: B N A S 3

Site Name: Standard Chlorine

SOIL SAMPLES (ug/Kg)

Case #: 13413 Sampling Date(s): 1/4-1/5/90

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

CRQL	COMPOUND	CBF72		CBF73		CBF74		CBF75		CBF76		CBF77		CBF78					
	Sample No.	CBF72		CBF73		CBF74		CBF75		CBF76		CBF77		CBF78					
	Dilution Factor	2.0		2.0		4.0		2.0		60		2.0		4.0					
	% Moisture	28		29		29		52		23		44		80					
	Location	WS-1		WS-2 Field Dup of CBF72		WS-3		WS-4		WS-5		WS-6		WS-7					
330	N-Nitrosodiphenylamine																		
330	4-Bromophenyl-phenylether																		
330	Hexachlorobenzene																		
1600	Pentachlorophenol																		
330	Phenanthrene																		
330	Anthracene																		
330	Di-n-butylphthalate																		
330	Fluoranthene																		
330	Pyrene		UJ																
330	Butylbenzylphthalate																		
1600	3,3-Dichlorobenzidine																		
330	Benzo(a)anthracene																		
330	Chrysene																		
330	bis(2-Ethylhexyl)phthalate		UJ	190	B							290	B	2200	B				
330	Di-n-octylphthalate																		
330	Benzo(b)fluoranthene																		
330	Benzo(k)fluoranthene																		
330	Benzo(a)pyrene																		
330	Indeno(1,2,3-cd)pyrene																		
330	Dibenz(a,h)anthracene																		
330	Benzo(g,h,i)perylene																		

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

AR301411

DATA SUMMARY FORM: PESTICIDES AND PCBS

Site Name: Standard Chlorine

SOIL SAMPLES (ug/Kg)

Case #: 13413 Sampling Date(s): 1/4/90

To calculate sample quantitation: (CRQL * Dilution Factor) / ((1 - % moisture)/100)

	Sample No.	CBF72		CBF73	
	Dilution Factor	2.0		2.0	
	% Moisture	28		29	
	Location	WS-1		WS-2 Field Dup of CBF72	
CRQL	COMPOUND				
8	alpha-BHC				
8	beta-BHC				
8	delta-BHC				
8	Gamma-BHC (Lindane)				
8	Heptachlor				
8	Aldrin				
8	Heptachlor Epoxide				
8	Endosulfan I				
16	Dieldrin				
16	4,4'-DDE				
16	Endrin				
16	Endosulfan II				
16	4,4'-DDD				
16	Endosulfan Sulfate				
16	4,4'-DDT				
80	Methoxychlor				
16	Endrin ketone				
80	Alpha-Chlordane				
80	Gamma-Chlordane				
160	Toxaphene				
80	Aroclor-1016				
80	Aroclor-1221				
80	Aroclor-1232				
80	Aroclor-1242				
80	Aroclor-1248				
160	Aroclor-1254				
160	Aroclor-1260	400	J	520	

AR301112

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

WESTON

Appendix C

Results as Reported by the Laboratory for all Target Compounds

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

CBF72

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0001

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA412

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 28. Date Analyzed: 1/ 9/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1700.	U
74-83-9	Bromomethane	1700.	U
75-01-4	Vinyl Chloride	1700.	U
75-00-3	Chloroethane	1700.	U
75-09-2	Methylene Chloride	670.	BJ
67-64-1	Acetone	1700.	U
75-15-0	Carbon Disulfide	870.	U
75-35-4	1,1-Dichloroethene	870.	U
75-34-3	1,1-Dichloroethane	870.	U
540-59-0	1,2-Dichloroethene (total)	450.	J
67-66-3	Chloroform	870.	U
107-06-2	1,2-Dichloroethane	870.	U
78-93-3	2-Butanone	1700.	U
71-55-6	1,1,1-Trichloroethane	870.	U
56-23-5	Carbon Tetrachloride	870.	U
108-05-4	Vinyl Acetate	1700.	U
75-27-4	Bromodichloromethane	870.	U
78-87-5	1,2-Dichloropropane	870.	U
10061-01-5	cis-1,3-Dichloropropene	870.	U
79-01-6	Trichloroethene	870.	U
124-48-1	Dibromochloromethane	870.	U
79-00-5	1,1,2-Trichloroethane	870.	U
71-43-2	Benzene	5800.	
10061-02-6	trans-1,3-Dichloropropene	870.	U
75-25-2	Bromoform	870.	U
108-10-1	4-Methyl-2-Pentanone	1700.	U
591-78-6	2-Hexanone	1700.	U
127-18-4	Tetrachloroethene	870.	U
79-34-5	1,1,2,2-Tetrachloroethane	870.	U
108-88-3	Toluene		
108-90-7	Chlorobenzene		
100-41-4	Ethylbenzene	870.	U
100-42-5	Styrene	870.	U
1330-20-7	Xylene (total)	560.	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF72

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BA237

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 23. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) Y pH: 6.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	920.	U
111-44-4	bis(2-Chloroethyl)ether	920.	U
95-57-8	2-Chlorophenol	920.	U
541-73-1	1,3-Dichlorobenzene	450.	J
106-46-7	1,4-Dichlorobenzene	1300.	
100-51-6	Benzyl alcohol	920.	U
95-50-1	1,2-Dichlorobenzene	920.	U
95-48-7	2-Methylphenol	920.	U
108-60-1	bis(2-Chloroisopropyl)ether	920.	U
106-44-5	4-Methylphenol	920.	U
621-64-7	N-Nitroso-di-n-propylamine	920.	U
67-72-1	Hexachloroethane	920.	U
98-95-3	Nitrobenzene	920.	U
78-59-1	Isophorone	920.	U
88-75-5	2-Nitrophenol	920.	U
105-67-9	2,4-Dimethylphenol	920.	U
65-85-0	Benzoic acid	4600.	U
111-91-1	bis(2-Chloroethoxy)methane	920.	U
120-83-2	2,4-Dichlorophenol	920.	U
120-82-1	1,2,4-Trichlorobenzene	120.	J
91-20-3	Naphthalene	920.	U
106-47-8	4-Chloroaniline	920.	U
87-68-3	Hexachlorobutadiene	920.	U
59-50-7	4-Chloro-3-methylphenol	920.	U
91-57-6	2-Methylnaphthalene	920.	U
77-47-4	Hexachlorocyclopentadiene		
88-06-2	2,4,6-Trichlorophenol		
95-95-4	2,4,5-Trichlorophenol	4600.	U
91-58-7	2-Chloronaphthalene	920.	U
88-74-4	2-Nitroaniline	4600.	U
131-11-3	Dimethylphthalate	920.	U
208-96-8	Acenaphthylene	920.	U
606-20-2	2,6-Dinitrotoluene	920.	U

EPA SAMPLE NO.

CBF72

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: RECMD Contract: S8W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 8A237

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 29. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) Y pH: 6.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4600.	U
83-32-9	Acenaphthene	920.	U
51-28-5	2,4-Dinitrophenol	4600.	U
100-02-7	4-Nitrophenol	4600.	U
132-64-9	Dibenzofuran	920.	U
121-14-2	2,4-Dinitrotoluene	920.	U
84-66-2	Diethylphthalate	920.	U
7005-72-3	4-Chlorophenyl-phenylether	920.	U
86-73-7	Fluorene	920.	U
100-01-6	4-Nitroaniline	4600.	U
534-52-1	4,6-Dinitro-2-methylphenol	4600.	U
86-30-6	N-Nitrosodiphenylamine	920.	U
101-55-3	4-Bromophenyl-phenylether	920.	U
118-74-1	Hexachlorobenzene	920.	U
87-86-5	Pentachlorophenol	4600.	U
85-01-8	Phenanthrene	920.	U
120-12-7	Anthracene	920.	U
84-74-2	Di-n-butylphthalate	920.	U
206-44-0	Fluoranthene	920.	U
129-00-0	Pyrene	920.	U
85-68-7	Butylbenzylphthalate	920.	U
91-94-1	3,3'-Dichlorobenzidine	1800.	U
56-55-3	Benzo(a)anthracene	920.	U
218-01-9	Chrysene	920.	U
117-81-7	bis(2-Ethylhexyl)phthalate	920.	U
117-84-0	Di-n-octylphthalate	920.	U
205-99-2	Benzo(b)fluoranthene	920.	U
207-08-9	Benzo(k)fluoranthene	920.	U
50-32-8	Benzo(a)pyrene		
193-39-5	Indeno(1,2,3-cd)pyrene		
53-70-3	Dibenzo(a,h)anthracene	920.	U
191-24-2	Benzo(g,h,i)perylene	920.	U

(1) - Cannot be separated from diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF72

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: C26A21

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 28. dec._____ Date Extracted: 1/ 8/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) Y pH: 6.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	22.	U
319-85-7	beta-BHC	22.	U
319-86-8	delta-BHC	22.	U
58-89-9	gamma-BHC (Lindane)	22.	U
76-44-8	Heptachlor	22.	U
309-00-2	Aldrin	22.	U
1024-57-3	Heptachlor epoxide	22.	U
959-98-8	Endosulfan I	22.	U
60-57-1	Dieldrin	44.	U
72-55-9	4,4'-DDE	44.	U
72-20-8	Endrin	44.	U
33213-65-9	Endosulfan II	44.	U
72-54-8	4,4'-DDD	44.	U
1031-07-8	Endosulfan sulfate	44.	U
50-29-3	4,4'-DDT	44.	U
72-43-5	Methoxychlor	220.	U
53494-70-5	Endrin ketone	44.	U
5103-71-9	alpha-Chlordane	220.	U
5103-74-2	gamma-Chlordane	220.	U
8001-35-2	Toxaphene	440.	U
12674-11-2	Aroclor-1016	220.	U
11104-28-2	Aroclor-1221	220.	U
11141-16-5	Aroclor-1232	220.	U
53469-21-9	Aroclor-1242	220.	U
12672-29-6	Aroclor-1248	220.	U
11097-69-1	Aroclor-1254	440.	U
11096-82-5	Aroclor-1260	400.	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF73

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0002

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA413

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 29. Date Analyzed: 1/ 9/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1800.	U
74-83-9	Bromomethane	1800.	U
75-01-4	Vinyl Chloride	1800.	U
75-00-3	Chloroethane	1800.	U
75-09-2	Methylene Chloride	1100.	B
67-64-1	Acetone	1800.	U
75-15-0	Carbon Disulfide	880.	U
75-35-4	1,1-Dichloroethene	880.	U
75-34-3	1,1-Dichloroethane	880.	U
540-59-0	1,2-Dichloroethene (total)	470.	J
67-66-3	Chloroform	880.	U
107-06-2	1,2-Dichloroethane	880.	U
78-93-3	2-Butanone	1800.	U
71-55-6	1,1,1-Trichloroethane	880.	U
56-23-5	Carbon Tetrachloride	880.	U
108-05-4	Vinyl Acetate	1800.	U
75-27-4	Bromodichloromethane	880.	U
78-87-5	1,2-Dichloropropane	880.	U
10061-01-5	cis-1,3-Dichloropropene	880.	U
79-01-6	Trichloroethene	880.	U
124-48-1	Dibromochloromethane	880.	U
79-00-5	1,1,2-Trichloroethane	880.	U
71-43-2	Benzene	27000.	
10061-02-6	trans-1,3-Dichloropropene	880.	U
75-25-2	Bromoform	880.	U
108-10-1	4-Methyl-2-Pentanone	1800.	U
591-78-6	2-Hexanone	1800.	U
127-18-4	Tetrachloroethene	880.	U
79-34-5	1,1,2,2-Tetrachloroethane		U
108-88-3	Toluene		
108-90-7	Chlorobenzene	34000.	
100-41-4	Ethylbenzene	880.	U
100-42-5	Styrene	880.	U
1330-20-7	Xylene (total)	880.	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF73

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: DA583

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 29. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) Y pH: 6.4 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	930.	U
111-44-4	bis(2-Chloroethyl)ether	930.	U
95-57-8	2-Chlorophenol	930.	U
541-73-1	1,3-Dichlorobenzene	450.	J
106-46-7	1,4-Dichlorobenzene	1400.	
100-51-6	Benzyl alcohol	930.	U
95-50-1	1,2-Dichlorobenzene	930.	U
95-48-7	2-Methylphenol	930.	U
108-60-1	bis(2-Chloroisopropyl)ether	930.	U
106-44-5	4-Methylphenol	930.	U
621-64-7	N-Nitroso-di-n-propylamine	930.	U
67-72-1	Hexachloroethane	930.	U
98-95-3	Nitrobenzene	930.	U
78-59-1	Isophorone	930.	U
88-75-5	2-Nitrophenol	930.	U
105-67-9	2,4-Dimethylphenol	930.	U
65-85-0	Benzoic acid	4500.	U
111-91-1	bis(2-Chloroethoxy)methane	930.	U
120-83-2	2,4-Dichlorophenol	930.	U
120-82-1	1,2,4-Trichlorobenzene	130.	J
91-20-3	Naphthalene	930.	U
106-47-8	4-Chloroaniline	930.	U
87-68-3	Hexachlorobutadiene	930.	U
59-50-7	4-Chloro-3-methylphenol	930.	U
91-57-6	2-Methylnaphthalene	930.	U
77-47-4	Hexachlorocyclopentadiene	930.	U
88-06-2	2,4,6-Trichlorophenol	930.	U
95-95-4	2,4,5-Trichlorophenol	4500.	U
91-58-7	2-Chloronaphthalene	930.	U
88-74-4	2-Nitroaniline	4500.	U
131-11-3	Dimethylphthalate	930.	U
208-96-8	Acenaphthylene	930.	U
606-20-2	2,6-Dinitrotoluene		

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF73

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: DA583

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 29. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) Y pH: 6.4 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4500.	U
83-32-9	Acenaphthene	930.	U
51-28-5	2,4-Dinitrophenol	4500.	U
100-02-7	4-Nitrophenol	4500.	U
132-64-9	Dibenzofuran	930.	U
121-14-2	2,4-Dinitrotoluene	930.	U
84-66-2	Diethylphthalate	930.	U
7005-72-3	4-Chlorophenyl-phenylether	930.	U
86-73-7	Fluorene	930.	U
100-01-6	4-Nitroaniline	4500.	U
534-52-1	4,6-Dinitro-2-methylphenol	4500.	U
86-30-6	N-Nitrosodiphenylamine	930.	U
101-55-3	4-Bromophenyl-phenylether	930.	U
118-74-1	Hexachlorobenzene	930.	U
87-86-5	Pentachlorophenol	4500.	U
85-01-8	Phenanthrene	930.	U
120-12-7	Anthracene	930.	U
84-74-2	Di-n-butylphthalate	930.	U
206-44-0	Fluoranthene	930.	U
129-00-0	Pyrene	930.	U
85-68-7	Butylbenzylphthalate	930.	U
91-94-1	3,3'-Dichlorobenzidine	1900.	U
56-55-3	Benzo(a)anthracene	930.	U
218-01-9	Chrysene	930.	U
117-81-7	bis(2-Ethylhexyl)phthalate	190.	J
117-84-0	Di-n-octylphthalate	930.	U
205-99-2	Benzo(b)fluoranthene	930.	U
207-08-9	Benzo(k)fluoranthene	930.	U
50-32-8	Benzo(a)pyrene	930.	U
193-39-5	Indeno(1,2,3-cd)pyrene	930.	U
53-70-3	Dibenzo(a,h)anthracene	930.	U
191-24-2	Benzo(g,h,i)perylene	930.	U

(1) - Cannot be separated from diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF73

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: C26A22

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 29. dec._____ Date Extracted: 1/ 8/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) Y pH: 6.4 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	23.	U
319-85-7	beta-BHC	23.	U
319-86-8	delta-BHC	23.	U
58-89-9	gamma-BHC (Lindane)	23.	U
76-44-8	Heptachlor	23.	U
309-00-2	Aldrin	23.	U
1024-57-3	Heptachlor epoxide	23.	U
959-98-8	Endosulfan I	23.	U
60-57-1	Dieldrin	45.	U
72-55-9	4,4'-DDE	45.	U
72-20-8	Endrin	45.	U
33213-65-9	Endosulfan II	45.	U
72-54-8	4,4'-DDD	45.	U
1031-07-8	Endosulfan sulfate	45.	U
50-29-3	4,4'-DDT	45.	U
72-43-5	Methoxychlor	230.	U
53494-70-5	Endrin ketone	45.	U
5103-71-9	alpha-Chlordane	230.	U
5103-74-2	gamma-Chlordane	230.	U
8001-35-2	Toxaphene	450.	U
12674-11-2	Aroclor-1016	230.	U
11104-28-2	Aroclor-1221	230.	U
11141-16-5	Aroclor-1232	230.	U
53469-21-9	Aroclor-1242	230.	U
12672-29-6	Aroclor-1248	230.	U
11097-69-1	Aroclor-1254	450.	U
11096-82-5	Aroclor-1260		

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF74

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0003

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA414

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 29. Date Analyzed: 1/ 9/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1800.	U
74-83-9	Bromomethane	1800.	U
75-01-4	Vinyl Chloride	1800.	U
75-00-3	Chloroethane	1800.	U
75-09-2	Methylene Chloride	1500.	B
67-64-1	Acetone	3700.	B
75-15-0	Carbon Disulfide	880.	U
75-35-4	1,1-Dichloroethene	880.	U
75-34-3	1,1-Dichloroethane	880.	U
540-59-0	1,2-Dichloroethene (total)	470.	J
67-66-3	Chloroform	880.	U
107-06-2	1,2-Dichloroethane	880.	U
78-93-3	2-Butanone	1800.	U
71-55-6	1,1,1-Trichloroethane	880.	U
56-23-5	Carbon Tetrachloride	880.	U
108-05-4	Vinyl Acetate	1800.	U
75-27-4	Bromodichloromethane	880.	U
78-87-5	1,2-Dichloropropane	880.	U
10061-01-5	cis-1,3-Dichloropropene	880.	U
79-01-6	Trichloroethene	880.	U
124-48-1	Dibromochloromethane	880.	U
79-00-5	1,1,2-Trichloroethane	880.	U
71-43-2	Benzene	17000.	
10061-02-6	trans-1,3-Dichloropropene	880.	U
75-25-2	Bromoform	880.	U
108-10-1	4-Methyl-2-Pentanone	1800.	U
591-78-6	2-Hexanone	1800.	U
127-18-4	Tetrachloroethene	880.	U
79-34-5	1,1,2,2-Tetrachloroethane	880.	U
108-88-3	Toluene	210.	J
108-90-7	Chlorobenzene	28000.	
100-41-4	Ethylbenzene	880.	U
100-42-5	Styrene	880.	U
1330-20-7	Xylene (total)	880.	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF74

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: DA250

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 29. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/11/90

GPC Cleanup: (Y/N) Y pH: 6.5 Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1900.	U
111-44-4	bis(2-Chloroethyl)ether	1900.	U
95-57-8	2-Chlorophenol	1900.	U
541-73-1	1,3-Dichlorobenzene	11000.	
106-46-7	1,4-Dichlorobenzene	27000.	
100-51-6	Benzyl alcohol	1900.	U
95-50-1	1,2-Dichlorobenzene	8200.	
95-48-7	2-Methylphenol	1900.	U
108-60-1	bis(2-Chloroisopropyl)ether	1900.	U
106-44-5	4-Methylphenol	1900.	U
621-64-7	N-Nitroso-di-n-propylamine	1900.	U
67-72-1	Hexachloroethane	1900.	U
98-95-3	Nitrobenzene	1900.	U
78-59-1	Isophorone	1900.	U
88-75-5	2-Nitrophenol	1900.	U
105-67-9	2,4-Dimethylphenol	1900.	U
65-85-0	Benzoic acid	9000.	U
111-91-1	bis(2-Chloroethoxy)methane	1900.	U
120-83-2	2,4-Dichlorophenol	1900.	U
120-82-1	1,2,4-Trichlorobenzene	16000.	
91-20-3	Naphthalene	1900.	U
106-47-8	4-Chloroaniline	1900.	U
87-68-3	Hexachlorobutadiene	1900.	U
59-50-7	4-Chloro-3-methylphenol	1900.	U
91-57-6	2-Methylnaphthalene	1900.	U
77-47-4	Hexachlorocyclopentadiene	1900.	U
88-06-2	2,4,6-Trichlorophenol	1900.	U
95-95-4	2,4,5-Trichlorophenol	9000.	U
91-58-7	2-Chloronaphthalene	1900.	U
88-74-4	2-Nitroaniline	9000.	U
131-11-3	Dimethylphthalate	1900.	U
208-96-8	Acenaphthylene	1900.	U
606-20-2	2,6-Dinitrotoluene	1900.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF74

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: DA250

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 29. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/11/90

GPC Cleanup: (Y/N) Y pH: 6.5 Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	9000.	U
83-32-9	Acenaphthene	1900.	U
51-28-5	2,4-Dinitrophenol	9000.	U
100-02-7	4-Nitrophenol	9000.	U
132-64-9	Dibenzofuran	1900.	U
121-14-2	2,4-Dinitrotoluene	1900.	U
84-66-2	Diethylphthalate	1900.	U
7005-72-3	4-Chlorophenyl-phenylether	1900.	U
86-73-7	Fluorene	1900.	U
100-01-6	4-Nitroaniline	9000.	U
534-52-1	4,6-Dinitro-2-methylphenol	9000.	U
86-30-6	N-Nitrosodiphenylamine	1900.	U
101-55-3	4-Bromophenyl-phenylether	1900.	U
118-74-1	Hexachlorobenzene	1900.	U
87-86-5	Pentachlorophenol	9000.	U
85-01-8	Phenanthrene	1900.	U
120-12-7	Anthracene	1900.	U
84-74-2	Di-n-butylphthalate	1900.	U
206-44-0	Fluoranthene	1900.	U
129-00-0	Pyrene	1900.	U
85-68-7	Butylbenzylphthalate	1900.	U
91-94-1	3,3'-Dichlorobenzidine	3700.	U
56-55-3	Benzo(a)anthracene	1900.	U
218-01-9	Chrysene	1900.	U
117-81-7	bis(2-Ethylhexyl)phthalate	1900.	U
117-84-0	Di-n-octylphthalate	1900.	U
205-99-2	Benzo(b)fluoranthene	1900.	U
207-08-9	Benzo(k)fluoranthene	1900.	U
50-32-8	Benzo(a)pyrene	1900.	U
193-39-5	Indeno(1,2,3-cd)pyrene	1900.	U
53-70-3	Dibenzo(a,h)anthracene	1900.	U
191-24-2	Benzo(g,h,i)perylene	1900.	U

(1) - Cannot be separated from diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF75

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0004

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA419

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 52. Date Analyzed: 1/ 9/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	2600.	U
74-83-9	Bromomethane	2600.	U
75-01-4	Vinyl Chloride	2600.	U
75-00-3	Chloroethane	2600.	U
75-09-2	Methylene Chloride	1500.	B
67-64-1	Acetone	6300.	B
75-15-0	Carbon Disulfide	1300.	U
75-35-4	1,1-Dichloroethene	1300.	U
75-34-3	1,1-Dichloroethane	1300.	U
540-59-0	1,2-Dichloroethene (total)	680.	J
67-66-3	Chloroform	1300.	U
107-06-2	1,2-Dichloroethane	1300.	U
78-93-3	2-Butanone	2600.	U
71-55-6	1,1,1-Trichloroethane	1300.	U
56-23-5	Carbon Tetrachloride	1300.	U
108-05-4	Vinyl Acetate	2600.	U
75-27-4	Bromodichloromethane	1300.	U
78-87-5	1,2-Dichloropropane	1300.	U
10061-01-5	cis-1,3-Dichloropropene	1300.	U
79-01-6	Trichloroethene	1300.	U
124-48-1	Dibromochloromethane	1300.	U
79-00-5	1,1,2-Trichloroethane	1300.	U
71-43-2	Benzene	1300.	U
10061-02-6	trans-1,3-Dichloropropene	1300.	U
75-25-2	Bromoform	1300.	U
108-10-1	4-Methyl-2-Pentanone	2600.	U
591-78-6	2-Hexanone	2600.	U
127-18-4	Tetrachloroethene	1300.	U
79-34-5	1,1,2,2-Tetrachloroethane	1300.	U
108-88-3	Toluene		
108-90-7	Chlorobenzene		
100-41-4	Ethylbenzene	1300.	U
100-42-5	Styrene	1300.	U
1330-20-7	Xylene (total)	880.	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF75

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: 330004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: DA335

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 30. dec._____ Date Extracted: 1/ 8/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) Y pH: 4.4 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1400.	U
111-44-4	bis(2-Chloroethyl)ether	1400.	U
95-57-8	2-Chlorophenol	1400.	U
541-73-1	1,3-Dichlorobenzene	2700.	
106-46-7	1,4-Dichlorobenzene	9100.	
100-51-6	Benzyl alcohol	1400.	U
95-50-1	1,2-Dichlorobenzene	2600.	
95-48-7	2-Methylphenol	1400.	U
108-60-1	bis(2-Chloroisopropyl)ether	1400.	U
106-44-5	4-Methylphenol	1400.	U
621-64-7	N-Nitroso-di-n-propylamine	1400.	U
67-72-1	Hexachloroethane	1400.	U
98-95-3	Nitrobenzene	1400.	U
78-59-1	Isophorone	1400.	U
88-75-5	2-Nitrophenol	1400.	U
105-67-9	2,4-Dimethylphenol	1400.	U
65-85-0	Benzoic acid	6900.	U
111-91-1	bis(2-Chloroethoxy)methane	1400.	U
120-83-2	2,4-Dichlorophenol	1400.	U
120-82-1	1,2,4-Trichlorobenzene	9000.	
91-20-3	Naphthalene	1400.	U
106-47-8	4-Chloroaniline	1400.	U
87-68-3	Hexachlorobutadiene	1400.	U
59-50-7	4-Chloro-3-methylphenol	1400.	U
91-57-6	2-Methylnaphthalene	1400.	U
77-47-4	Hexachlorocyclopentadiene		
88-06-2	2,4,6-Trichlorophenol	1400.	U
95-95-4	2,4,5-Trichlorophenol	6900.	U
91-58-7	2-Chloronaphthalene	1400.	U
88-74-4	2-Nitroaniline	6900.	U
131-11-3	Dimethylphthalate	1400.	U
208-96-8	Acenaphthylene	1400.	U
606-20-2	2,6-Dinitrotoluene	1400.	U

AR301156

AR301156

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CBF75

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 10412 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: DA535

Level: (low/med) LOW Date Received: 1/ 5/90

% Moisture: not dec. 50. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) Y pH: 4.4 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) UG/KG	Q
99-09-2	3-Nitroaniline	6900.	U
83-32-9	Acenaphthene	1400.	U
51-28-5	2,4-Dinitrophenol	6900.	U
100-02-7	4-Nitrophenol	6900.	U
132-64-9	Dibenzofuran	1400.	U
121-14-2	2,4-Dinitrotoluene	1400.	U
84-66-2	Diethylphthalate	1400.	U
7005-72-3	4-Chlorophenyl-phenylether	1400.	U
86-73-7	Fluorene	1400.	U
100-01-6	4-Nitroaniline	6900.	U
534-52-1	4,6-Dinitro-2-methylphenol	6900.	U
86-30-6	N-Nitrosodiphenylamine	1400.	U
101-55-3	4-Bromophenyl-phenylether	1400.	U
118-74-1	Hexachlorobenzene	1400.	U
87-86-5	Pentachlorophenol	6900.	U
85-01-8	Phenanthrene	1400.	U
120-12-7	Anthracene	1400.	U
84-74-2	Di-n-butylphthalate	1400.	U
206-44-0	Fluoranthene	1400.	U
129-00-0	Pyrene	1400.	U
85-68-7	Butylbenzylphthalate	1400.	U
91-94-1	3,3'-Dichlorobenzidine	2700.	U
56-55-3	Benzo(a)anthracene	1400.	U
218-01-9	Chrysene	1400.	U
117-81-7	bis(2-Ethylhexyl)phthalate	1400.	U
117-84-0	Di-n-octylphthalate	1400.	U
205-99-2	Benzo(b)fluoranthene	1400	U
207-08-9	Benzo(k)fluoranthene	1400	U
50-32-8	Benzo(a)pyrene	1400.	U
193-39-5	Indeno(1,2,3-cd)pyrene	1400.	U
53-70-3	Dibenzo(a,h)anthracene	1400.	U
191-24-2	Benzo(g,h,i)perylene	1400.	U

(1) - Cannot be separated from diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF76

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0005

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA428

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 23. Date Analyzed: 1/10/90

Column: (pack/cap) PACK Dilution Factor: 12.50

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	20000.	U
74-83-9	Bromomethane	20000.	U
75-01-4	Vinyl Chloride	20000.	U
75-00-3	Chloroethane	20000.	U
75-09-2	Methylene Chloride	14000.	B
67-64-1	Acetone	29000.	B
75-15-0	Carbon Disulfide	10000.	U
75-35-4	1,1-Dichloroethene	10000.	U
75-34-3	1,1-Dichloroethane	10000.	U
540-59-0	1,2-Dichloroethene (total)	5300.	J
67-66-3	Chloroform	10000.	U
107-06-2	1,2-Dichloroethane	10000.	U
78-93-3	2-Butanone	20000.	U
71-55-6	1,1,1-Trichloroethane	10000.	U
56-23-5	Carbon Tetrachloride	10000.	U
108-05-4	Vinyl Acetate	20000.	U
75-27-4	Bromodichloromethane	10000.	U
78-87-5	1,2-Dichloropropane	10000.	U
10061-01-5	cis-1,3-Dichloropropene	10000.	U
79-01-6	Trichloroethene	10000.	U
124-48-1	Dibromochloromethane	10000.	U
79-00-5	1,1,2-Trichloroethane	10000.	U
71-43-2	Benzene	5600.	J
10061-02-6	trans-1,3-Dichloropropene	10000.	U
75-25-2	Bromoform	10000.	U
108-10-1	4-Methyl-2-Pentanone	20000.	U
591-78-6	2-Hexanone	20000.	U
127-18-4	Tetrachloroethene	10000.	U
79-34-5	1,1,2,2-Tetrachloroethane	10000.	U
108-88-3	Toluene	[illegible]	
108-90-7	Chlorobenzene		
100-41-4	Ethylbenzene	10000.	U
100-42-5	Styrene	10000.	U
1330-20-7	Xylene (total)	8400.	J

AR301158

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF76 RE

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0005

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA431

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 23. Date Analyzed: 1/10/90

Column: (pack/cap) PACK Dilution Factor: 12.50

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	20000.	U
74-83-9	Bromomethane	20000.	U
75-01-4	Vinyl Chloride	20000.	U
75-00-3	Chloroethane	20000.	U
75-09-2	Methylene Chloride	9400.	BJ
67-64-1	Acetone	20000.	U
75-15-0	Carbon Disulfide	10000.	U
75-35-4	1,1-Dichloroethene	10000.	U
75-34-3	1,1-Dichloroethane	10000.	U
540-59-0	1,2-Dichloroethene (total)	5600.	J
67-66-3	Chloroform	10000.	U
107-06-2	1,2-Dichloroethane	10000.	U
78-93-3	2-Butanone	20000.	U
71-55-6	1,1,1-Trichloroethane	10000.	U
56-23-5	Carbon Tetrachloride	10000.	U
108-05-4	Vinyl Acetate	20000.	U
75-27-4	Bromodichloromethane	10000.	U
78-87-5	1,2-Dichloropropane	10000.	U
10061-01-5	cis-1,3-Dichloropropene	10000.	U
79-01-6	Trichloroethene	10000.	U
124-48-1	Dibromochloromethane	10000.	U
79-00-5	1,1,2-Trichloroethane	10000.	U
71-43-2	Benzene	5700.	J
10061-02-6	trans-1,3-Dichloropropene	10000.	U
75-25-2	Bromoform	10000.	U
108-10-1	4-Methyl-2-Pentanone	20000.	U
591-78-6	2-Hexanone	20000.	U
127-18-4	Tetrachloroethene	[illegible]	
79-34-5	1,1,2,2-Tetrachloroethane	[illegible]	
108-88-3	Toluene	10000.	U
108-90-7	Chlorobenzene	310000.	
100-41-4	Ethylbenzene	10000.	U
100-42-5	Styrene	10000.	U
1330-20-7	Xylene (total)	7500.	J

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C8F76

Lab Name: RECMO Contract: 68W80051

Lab Code: RECMO Case No.: 13413 SAS No.: SDG No.: C8F72

Matrix: (soil/water) SOIL Lab Sample ID: B50005

Sample wt/vol: 1.000 (g/mL) G Lab File ID: DA579

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 23. dec._____ Date Extracted: 1/10/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	26000.	U
111-44-4	bis(2-Chloroethyl)ether	26000.	U
95-57-8	2-Chlorophenol	26000.	U
541-73-1	1,3-Dichlorobenzene	27000.	
106-46-7	1,4-Dichlorobenzene	210000.	
100-51-6	Benzyl alcohol	26000.	U
95-50-1	1,2-Dichlorobenzene	26000.	J
95-48-7	2-Methylphenol	26000.	U
108-60-1	bis(2-Chloroisopropyl)ether	26000.	U
106-44-5	4-Methylphenol	26000.	U
621-64-7	N-Nitroso-di-n-propylamine	26000.	U
67-72-1	Hexachloroethane	26000.	U
98-95-3	Nitrobenzene	26000.	U
78-59-1	Isophorone	26000.	U
88-75-5	2-Nitrophenol	26000.	U
105-67-9	2,4-Dimethylphenol	26000.	U
65-85-0	Benzoic acid	130000.	U
111-91-1	bis(2-Chloroethoxy)methane	26000.	U
120-83-2	2,4-Dichlorophenol	26000.	U
120-82-1	1,2,4-Trichlorobenzene	310000.	
91-20-3	Naphthalene	26000.	U
106-47-8	4-Chloroaniline	26000.	U
87-68-3	Hexachlorobutadiene	26000.	U
59-50-7	4-Chloro-3-methylphenol	26000.	U
91-57-6	2-Methylnaphthalene	26000	
77-47-4	Hexachlorocyclopentadiene	260	
88-06-2	2,4,6-Trichlorophenol	260	
95-95-4	2,4,5-Trichlorophenol	130000.	U
91-58-7	2-Chloronaphthalene	26000.	U
88-74-4	2-Nitroaniline	130000.	U
131-11-3	Dimethylphthalate	26000.	U
208-96-8	Acenaphthylene	26000.	U
606-20-2	2,6-Dinitrotoluene	26000.	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CBF76

Lab Name: RECMO Contract: 68W80051

Lab Code: RECMO Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: 990005

Sample wt/vol: 1.000 (g/mL) G Lab File ID: DA579

Level: (low/med) MED Date Received: 1/ 5/90

% Moisture: not dec. 33. dec._____ Date Extracted: 1/10/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	130000.	U
83-32-9	Acenaphthene	25000.	U
51-28-5	2,4-Dinitrophenol	130000.	U
100-02-7	4-Nitrophenol	130000.	U
132-64-9	Dibenzofuran	25000.	U
121-14-2	2,4-Dinitrotoluene	25000.	U
84-66-2	Diethylphthalate	25000.	U
7005-72-3	4-Chlorophenyl-phenylether	25000.	U
86-73-7	Fluorene	25000.	U
100-01-6	4-Nitroaniline	130000.	U
534-52-1	4,6-Dinitro-2-methylphenol	130000.	U
86-30-6	N-Nitrosodiphenylamine	25000.	U
101-55-3	4-Bromophenyl-phenylether	25000.	U
118-74-1	Hexachlorobenzene	25000.	U
87-86-5	Pentachlorophenol	130000.	U
85-01-8	Phenanthrene	25000.	U
120-12-7	Anthracene	25000.	U
84-74-2	Di-n-butylphthalate	25000.	U
206-44-0	Fluoranthene	25000.	U
129-00-0	Pyrene	25000.	U
85-68-7	Butylbenzylphthalate	25000.	U
91-94-1	3,3'-Dichlorobenzidine	51000.	U
56-55-3	Benzo(a)anthracene	25000.	U
218-01-9	Chrysene	25000.	U
117-81-7	bis(2-Ethylhexyl)phthalate	25000.	U
117-84-0	Di-n-octylphthalate	25000.	U
205-99-2	Benzo(b)fluoranthene	25000.	U
207-08-9	Benzo(k)fluoranthene	25[illegible]	
50-32-8	Benzo(a)pyrene	25[illegible]	
193-39-5	Indeno(1,2,3-cd)pyrene	25000.	U
53-70-3	Dibenzo(a,h)anthracene	25000.	U
191-24-2	Benzo(g,h,i)perylene	25000.	U

Cannot be separated from diphenylamine

AR301164

1/87 Rev.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF77

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0006

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA429

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 44. Date Analyzed: 1/10/90

Column: (pack/cap) PACK Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	22000.	U
74-83-9	Bromomethane	22000.	U
75-01-4	Vinyl Chloride	22000.	U
75-00-3	Chloroethane	22000.	U
75-09-2	Methylene Chloride	19000.	B
67-64-1	Acetone	28000.	B
75-15-0	Carbon Disulfide	11000.	U
75-35-4	1,1-Dichloroethene	11000.	U
75-34-3	1,1-Dichloroethane	11000.	U
540-59-0	1,2-Dichloroethene (total)	5800.	J
67-66-3	Chloroform	11000.	U
107-06-2	1,2-Dichloroethane	11000.	U
78-93-3	2-Butanone	22000.	U
71-55-6	1,1,1-Trichloroethane	11000.	U
56-23-5	Carbon Tetrachloride	11000.	U
108-05-4	Vinyl Acetate	22000.	U
75-27-4	Bromodichloromethane	11000.	U
78-87-5	1,2-Dichloropropane	11000.	U
10061-01-5	cis-1,3-Dichloropropene	11000.	U
79-01-6	Trichloroethene	11000.	U
124-48-1	Dibromochloromethane	11000.	U
79-00-5	1,1,2-Trichloroethane	11000.	U
71-43-2	Benzene	19000.	
10061-02-6	trans-1,3-Dichloropropene	11000.	U
75-25-2	Bromoform	11000.	U
108-10-1	4-Methyl-2-Pentanone	22000.	U
591-78-6	2-Hexanone	22000.	U
127-18-4	Tetrachloroethene	11000.	U
79-34-5	1,1,2,2-Tetrachloroethane	110[illegible]	
108-88-3	Toluene	11[illegible]	
108-90-7	Chlorobenzene	270000.	
100-41-4	Ethylbenzene	11000.	U
100-42-5	Styrene	11000.	U
1330-20-7	Xylene (total)	7800.	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF77 RE

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0006

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA432

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 44. Date Analyzed: 1/10/90

Column: (pack/cap) PACK Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	22000.	U
74-83-9	Bromomethane	22000.	U
75-01-4	Vinyl Chloride	22000.	U
75-00-3	Chloroethane	22000.	U
75-09-2	Methylene Chloride	13000.	B
67-64-1	Acetone	32000.	B
75-15-0	Carbon Disulfide	11000.	U
75-35-4	1,1-Dichloroethene	11000.	U
75-34-3	1,1-Dichloroethane	11000.	U
540-59-0	1,2-Dichloroethene (total)	5700.	J
67-66-3	Chloroform	11000.	U
107-06-2	1,2-Dichloroethane	11000.	U
78-93-3	2-Butanone	22000.	U
71-55-6	1,1,1-Trichloroethane	11000.	U
56-23-5	Carbon Tetrachloride	11000.	U
108-05-4	Vinyl Acetate	22000.	U
75-27-4	Bromodichloromethane	11000.	U
78-87-5	1,2-Dichloropropane	11000.	U
10061-01-5	cis-1,3-Dichloropropene	11000.	U
79-01-6	Trichloroethene	11000.	U
124-48-1	Dibromochloromethane	11000.	U
79-00-5	1,1,2-Trichloroethane	11000.	U
71-43-2	Benzene	19000.	
10061-02-6	trans-1,3-Dichloropropene	11000.	U
75-25-2	Bromoform	11000.	U
108-10-1	4-Methyl-2-Pentanone	22000.	U
591-78-6	2-Hexanone	22000.	U
127-18-4	Tetrachloroethene	11000.	U
79-34-5	1,1,2,2-Tetrachloroethane	11	
108-88-3	Toluene	11	
108-90-7	Chlorobenzene	270000.	
100-41-4	Ethylbenzene	11000.	U
100-42-5	Styrene	11000.	U
1330-20-7	Xylene (total)	8300.	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF77

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0006

Sample wt/vol: 30.0 (g/mL) G Lab File ID: DA586

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 44. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) Y pH: 6.2 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1200.	U
111-44-4	bis(2-Chloroethyl)ether	1200.	U
95-57-8	2-Chlorophenol	1200.	U
541-73-1	1,3-Dichlorobenzene	4700.	
106-46-7	1,4-Dichlorobenzene	11000.	
100-51-6	Benzyl alcohol	1200.	U
95-50-1	1,2-Dichlorobenzene	1100.	J
95-48-7	2-Methylphenol	1200.	U
108-60-1	bis(2-Chloroisopropyl)ether	1200.	U
106-44-5	4-Methylphenol	1200.	U
621-64-7	N-Nitroso-di-n-propylamine	1200.	U
67-72-1	Hexachloroethane	1200.	U
98-95-3	Nitrobenzene	1200.	U
78-59-1	Isophorone	1200.	U
88-75-5	2-Nitrophenol	1200.	U
105-67-9	2,4-Dimethylphenol	1200.	U
65-85-0	Benzoic acid	5700.	U
111-91-1	bis(2-Chloroethoxy)methane	1200.	U
120-83-2	2,4-Dichlorophenol	1200.	U
120-82-1	1,2,4-Trichlorobenzene	10000.	
91-20-3	Naphthalene	1200.	U
106-47-8	4-Chloroaniline	1200.	U
87-68-3	Hexachlorobutadiene	1200.	U
59-50-7	4-Chloro-3-methylphenol	1200.	U
91-57-6	2-Methylnaphthalene	1200.	U
77-47-4	Hexachlorocyclopentadiene	1200.	U
88-06-2	2,4,6-Trichlorophenol	1200.	U
95-95-4	2,4,5-Trichlorophenol	5700.	U
91-58-7	2-Chloronaphthalene	1200.	U
88-74-4	2-Nitroaniline	5700.	U
131-11-3	Dimethylphthalate	1200.	U
208-96-8	Acenaphthylene	1200.	U
606-20-2	2,6-Dinitrotoluene	1200.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF77

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0006

Sample wt/vol: 30.0 (g/mL) G Lab File ID: DA586

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 44. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) Y pH: 6.2 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	5700.	U
83-32-9	Acenaphthene	1200.	U
51-28-5	2,4-Dinitrophenol	5700.	U
100-02-7	4-Nitrophenol	5700.	U
132-64-9	Dibenzofuran	1200.	U
121-14-2	2,4-Dinitrotoluene	1200.	U
84-66-2	Diethylphthalate	1200.	U
7005-72-3	4-Chlorophenyl-phenylether	1200.	U
86-73-7	Fluorene	1200.	U
100-01-6	4-Nitroaniline	5700.	U
534-52-1	4,6-Dinitro-2-methylphenol	5700.	U
86-30-6	N-Nitrosodiphenylamine	1200.	U
101-55-3	4-Bromophenyl-phenylether	1200.	U
118-74-1	Hexachlorobenzene	1200.	U
87-86-5	Pentachlorophenol	5700.	U
85-01-8	Phenanthrene	1200.	U
120-12-7	Anthracene	1200.	U
84-74-2	Di-n-butylphthalate	1200.	U
206-44-0	Fluoranthene	1200.	U
129-00-0	Pyrene	1200.	U
85-68-7	Butylbenzylphthalate	1200.	U
91-94-1	3,3'-Dichlorobenzidine	2400.	U
56-55-3	Benzo(a)anthracene	1200.	U
218-01-9	Chrysene	1200.	U
117-81-7	bis(2-Ethylhexyl)phthalate	290.	J
117-84-0	Di-n-octylphthalate	1200.	U
205-99-2	Benzo(b)fluoranthene	1200.	U
207-08-9	Benzo(k)fluoranthene	1200.	U
50-32-8	Benzo(a)pyrene	1200.	U
193-39-5	Indeno(1,2,3-cd)pyrene	1200.	U
53-70-3	Dibenzo(a,h)anthracene	1200.	U
191-24-2	Benzo(g,h,i)perylene	1200.	U

(1) - Cannot be separated from diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF78

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0007

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA427

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 60. Date Analyzed: 1/10/90

Column: (pack/cap) PACK Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	31000.	U
74-83-9	Bromomethane	31000.	U
75-01-4	Vinyl Chloride	31000.	U
75-00-3	Chloroethane	31000.	U
75-09-2	Methylene Chloride	28000.	B
67-64-1	Acetone	78000.	B
75-15-0	Carbon Disulfide	16000.	U
75-35-4	1,1-Dichloroethene	16000.	U
75-34-3	1,1-Dichloroethane	16000.	U
540-59-0	1,2-Dichloroethene (total)	7400.	J
67-66-3	Chloroform	16000.	U
107-06-2	1,2-Dichloroethane	16000.	U
78-93-3	2-Butanone	31000.	U
71-55-6	1,1,1-Trichloroethane	16000.	U
56-23-5	Carbon Tetrachloride	16000.	U
108-05-4	Vinyl Acetate	31000.	U
75-27-4	Bromodichloromethane	16000.	U
78-87-5	1,2-Dichloropropane	16000.	U
10061-01-5	cis-1,3-Dichloropropene	16000.	U
79-01-6	Trichloroethene	16000.	U
124-48-1	Dibromochloromethane	16000.	U
79-00-5	1,1,2-Trichloroethane	16000.	U
71-43-2	Benzene	70000.	
10061-02-6	trans-1,3-Dichloropropene	16000.	U
75-25-2	Bromoform	16000.	U
108-10-1	4-Methyl-2-Pentanone	31000.	U
591-78-6	2-Hexanone	31000.	U
127-18-4	Tetrachloroethene	16000	U
79-34-5	1,1,2,2-Tetrachloroethane	[illegible]	U
108-88-3	Toluene	[illegible]	U
108-90-7	Chlorobenzene	240000.	
100-41-4	Ethylbenzene	16000.	U
100-42-5	Styrene	16000.	U
1330-20-7	Xylene (total)	11000.	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF78 RE

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0007

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA430

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 60. Date Analyzed: 1/10/90

Column: (pack/cap) PACK Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	31000.	U
74-83-9	Bromomethane	31000.	U
75-01-4	Vinyl Chloride	31000.	U
75-00-3	Chloroethane	31000.	U
75-09-2	Methylene Chloride	15000.	BJ
67-64-1	Acetone	53000.	B
75-15-0	Carbon Disulfide	16000.	U
75-35-4	1,1-Dichloroethene	16000.	U
75-34-3	1,1-Dichloroethane	16000.	U
540-59-0	1,2-Dichloroethene (total)	8300.	J
67-66-3	Chloroform	16000.	U
107-06-2	1,2-Dichloroethane	16000.	U
78-93-3	2-Butanone	31000.	U
71-55-6	1,1,1-Trichloroethane	16000.	U
56-23-5	Carbon Tetrachloride	16000.	U
108-05-4	Vinyl Acetate	31000.	U
75-27-4	Bromodichloromethane	16000.	U
78-87-5	1,2-Dichloropropane	16000.	U
10061-01-5	cis-1,3-Dichloropropene	16000.	U
79-01-6	Trichloroethene	16000.	U
124-48-1	Dibromochloromethane	16000.	U
79-00-5	1,1,2-Trichloroethane	16000.	U
71-43-2	Benzene	65000.	
10061-02-6	trans-1,3-Dichloropropene	16000.	U
75-25-2	Bromoform	16000.	U
108-10-1	4-Methyl-2-Pentanone	31000.	U
591-78-6	2-Hexanone	31000.	U
127-18-4	Tetrachloroethene		
79-34-5	1,1,2,2-Tetrachloroethane		
108-88-3	Toluene	16000.	U
108-90-7	Chlorobenzene	240000.	
100-41-4	Ethylbenzene	16000.	U
100-42-5	Styrene	16000.	U
1330-20-7	Xylene (total)	12000.	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF78

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS000

Sample wt/vol: 30.0 (g/mL) G Lab File ID: DA249

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 60. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/11/90

GPC Cleanup: (Y/N) Y pH: 6.4 Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	6600.	U
111-44-4	bis(2-Chloroethyl)ether	6600.	U
95-57-8	2-Chlorophenol	6600.	U
541-73-1	1,3-Dichlorobenzene	33000.	
106-46-7	1,4-Dichlorobenzene	100000.	
100-51-6	Benzyl alcohol	6600.	U
95-50-1	1,2-Dichlorobenzene	20000.	
95-48-7	2-Methylphenol	6600.	U
108-60-1	bis(2-Chloroisopropyl)ether	6600.	U
106-44-5	4-Methylphenol	6600.	U
621-64-7	N-Nitroso-di-n-propylamine	6600.	U
67-72-1	Hexachloroethane	6600.	U
98-95-3	Nitrobenzene	6600.	U
78-59-1	Isophorone	6600.	U
88-75-5	2-Nitrophenol	6600.	U
105-67-9	2,4-Dimethylphenol	6600.	U
65-85-0	Benzoic acid	32000.	U
111-91-1	bis(2-Chloroethoxy)methane	6600.	U
120-83-2	2,4-Dichlorophenol	6600.	U
120-82-1	1,2,4-Trichlorobenzene	87000.	
91-20-3	Naphthalene	6600.	U
106-47-8	4-Chloroaniline	6600.	U
87-68-3	Hexachlorobutadiene	6600.	U
59-50-7	4-Chloro-3-methylphenol	6600.	U
91-57-6	2-Methylnaphthalene	6600.	U
77-47-4	Hexachlorocyclopentadiene	6600.	U
88-06-2	2,4,6-Trichlorophenol	6600.	U
95-95-4	2,4,5-Trichlorophenol	32000.	U
91-58-7	2-Chloronaphthalene		
88-74-4	2-Nitroaniline	32000.	U
131-11-3	Dimethylphthalate	6600.	U
208-96-8	Acenaphthylene	6600.	U
606-20-2	2,6-Dinitrotoluene	6600.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF78

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0CW

Sample wt/vol: 30.0 (g/mL) G Lab File ID: DA249

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 60. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/11/90

GPC Cleanup: (Y/N) Y pH: 6.4 Dilution Factor: 2.00

APR 6 1990

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	32000.	U
83-32-9	Acenaphthene	6600.	U
51-28-5	2,4-Dinitrophenol	32000.	U
100-02-7	4-Nitrophenol	32000.	U
132-64-9	Dibenzofuran	6600.	U
121-14-2	2,4-Dinitrotoluene	6600.	U
84-66-2	Diethylphthalate	6600.	U
7005-72-3	4-Chlorophenyl-phenylether	6600.	U
86-73-7	Fluorene	6600.	U
100-01-6	4-Nitroaniline	32000.	U
534-52-1	4,6-Dinitro-2-methylphenol	32000.	U
86-30-6	N-Nitrosodiphenylamine	6600.	U
101-55-3	4-Bromophenyl-phenylether	6600.	U
118-74-1	Hexachlorobenzene	6600.	U
87-86-5	Pentachlorophenol	32000.	U
85-01-8	Phenanthrene	6600.	U
120-12-7	Anthracene	6600.	U
84-74-2	Di-n-butylphthalate	6600.	U
206-44-0	Fluoranthene	6600.	U
129-00-0	Pyrene	6600.	U
85-68-7	Butylbenzylphthalate	6600.	U
91-94-1	3,3'-Dichlorobenzidine	13000.	U
56-55-3	Benzo(a)anthracene	6600.	U
218-01-9	Chrysene	6600.	U
117-81-7	bis(2-Ethylhexyl)phthalate	2200.	BJ
117-84-0	Di-n-octylphthalate	6600.	U
205-99-2	Benzo(b)fluoranthene	6600.	U
207-08-9	Benzo(k)fluoranthene		
50-32-8	Benzo(a)pyrene		U
193-39-5	Indeno(1,2,3-cd)pyrene	6600.	U
53-70-3	Dibenzo(a,h)anthracene	6600.	U
191-24-2	Benzo(g,h,i)perylene	6600.	U

(1) - Cannot be separated from diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF79

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) WATER Lab Sample ID: BW0008

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA407

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 100. Date Analyzed: 1/ 8/90

Column: (pack/cap) PACK Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	280.	B
67-64-1	Acetone	37.	
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)	7.	BJ
67-66-3	Chloroform	14.	
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	20.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
108-05-4	Vinyl Acetate	20.	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	20.	U
591-78-6	2-Hexanone	20.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	[illegible]	U
108-90-7	Chlorobenzene		
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	Xylene (total)	7.	BJ

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF79

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) WATER Lab Sample ID: BW0008

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: BA232

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 100. dec._____ Date Extracted: 1/ 8/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 1/ 9/90

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

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

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF79

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) WATER Lab Sample ID: BW0008

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: BA232

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 100. dec._____ Date Extracted: 1/ 8/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 1/ 9/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	4,6-Dinitro-2-methylphenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	20.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenzo(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

AR301172

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF79

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) WATER Lab Sample ID: BW0008

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: C26A17

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 100. dec._____ Date Extracted: 1/ 8/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 1/10/90

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

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF80

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) WATER Lab Sample ID: BW0009

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA406

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 100. Date Analyzed: 1/ 8/90

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

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

WESTON SM

Appendix D

Reviewed and Corrected Tentatively Identified Compounds

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CBF72

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0001

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA412

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 28. Date Analyzed: 1/ 9/90

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

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	Dichloro-Benzene isomer	29.75	800.	J
2. - -	Dichloro-Benzene isomer	30.68	2000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CBF72

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BA237

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 28. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) Y pH: 6.3 Dilution Factor: 1.00

Number TICs found: 10

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1. 108-38-3~~	~~Benzene, methyl~~	~~5.41~~	~~1000.~~	~~BJ~~
~~2. - -~~	~~UNKNOWN~~	~~8.51~~	~~4000.~~	~~BJ~~
3. 926-82-9	Heptane, 3,5-dimethyl	6.85	600.	J
~~4. - -~~	~~UNKNOWN~~	~~7.18~~	~~30000.~~	~~BJ~~
~~5. - -~~	~~UNKNOWN~~	~~8.56~~	~~900.~~	~~BJ~~
~~6. - -~~	~~UNKNOWN~~	~~9.22~~	~~3000.~~	~~BJ~~
7. - -	UNKNOWN	10.05	900.	J
8. - -	UNKNOWN	11.01	900.	J
9. - -	UNKNOWN	11.21	3000.	J
10. - -	UNKNOWN	33.04	2000.	J
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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CBF73

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0002

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA413

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 29. Date Analyzed: 1/ 9/90

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

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	Dichloro-Benzene isomer	30.67	1000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C8F73

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: C8F72

Matrix: (soil/water) SOIL Lab Sample ID: 8S0002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: DA583

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 29. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) Y pH: 6.4 Dilution Factor: 1.00

Number TICs found: 13

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1. 108-38-3~~	~~Benzene, methyl- (SCI)~~	~~4.38~~	~~800.~~	~~BJ~~
~~2. - -~~	~~UNKNOWN~~	~~5.77~~	~~2000.~~	~~BJ~~
~~3. - -~~	~~UNKNOWN~~	~~5.91~~	~~5000.~~	~~BJ~~
4. - -	UNKNOWN ALKANE	6.13	500.	J
~~5. - -~~	~~UNKNOWN~~	~~6.40~~	~~40000.~~	~~BJ~~
~~6. - -~~	~~UNKNOWN~~	~~7.86~~	~~1000.~~	~~BJ~~
7. - -	UNKNOWN	8.15	600.	J
~~8. - -~~	~~UNKNOWN~~	~~8.51~~	~~3000.~~	~~BJ~~
9. - -	UNKNOWN	9.35	1000.	J
10. - -	UNKNOWN	10.33	2000.	J
11. - -	UNKNOWN	10.49	3000.	J
12. - -	UNKNOWN	30.98	800.	J
13. - -	UNKNOWN	31.45	2000.	J
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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CBF74

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0003

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA414

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 29. Date Analyzed: 1/ 9/90

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	NO SIGNIFICANT PEAKS PRESENT			
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CBF74

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: DA250

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 29. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/11/90

GPC Cleanup: (Y/N) Y pH: 6.5 Dilution Factor: 2.00

Number TICs found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1. - -~~	~~UNKNOWN~~	~~6.15~~	~~1000.~~	~~BJ~~
~~2. - -~~	~~UNKNOWN~~	~~6.23~~	~~800.~~	~~BJ~~
~~3. - -~~	~~UNKNOWN~~	~~6.98~~	~~50000.~~	~~BJ~~
~~4. - -~~	~~UNKNOWN~~	~~8.52~~	~~900.~~	~~BJ~~
5. 87-61-6	Benzene, 1,2,3-trichloro- (8	13.93	6000.	J
6. 634-90-2	Benzene, 1,2,3,5-tetrachloro	15.76	2000.	J
7. 634-66-2	Benzene, 1,2,3,4-tetrachloro	16.52	7000.	J
8. - -	UNKNOWN	35.71	7000.	J
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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CBF75

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0004

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA419

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 52. Date Analyzed: 1/ 9/90

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	NO SIGNIFICANT PEAKS PRESENT			
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CBF7S

Lab Name: RECMO Contract: 68W80051

Lab Code: RECMO Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: DAS8E

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 51. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) Y pH: 4.4 Dilution Factor: 1.00

Number TICs found: 18 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	2.96	10000.	J
~~2.~~	~~108-38-3~~	~~Benzene, methyl- (38I)~~	~~4.71~~	~~700.~~	~~BJ~~
~~3.~~	~~- -~~	~~UNKNOWN~~	~~5.77~~	~~3000.~~	~~BJ~~
~~4.~~	~~- -~~	~~UNKNOWN~~	~~5.85~~	~~3000.~~	~~BJ~~
~~5.~~	~~- -~~	~~UNKNOWN~~	~~6.48~~	~~50000.~~	~~BJ~~
~~6.~~	~~- -~~	~~UNKNOWN~~	~~7.94~~	~~1000.~~	~~BJ~~
7.	- -	UNKNOWN	8.15	800.	J
~~8.~~	~~- -~~	~~UNKNOWN~~	~~8.49~~	~~2000.~~	~~BJ~~
9.	- -	UNKNOWN	9.35	2000.	J
10.	- -	UNKNOWN	10.49	6000.	J
11.	87-61-6	Benzene, 1,2,3-trichloro- (8	13.42	4000.	J
12.	634-90-2	Benzene, 1,2,3,5-tetrachloro	15.21	2000.	J
13.	634-66-2	Benzene, 1,2,3,4-tetrachloro	15.98	7000.	J
14.	608-93-5	Benzene, pentachloro- (8C19C	17.98	4000.	J
15.	- -	UNKNOWN ALKANE	29.40	2000.	J
16.	- -	UNKNOWN	30.97	1000.	J
17.	- -	UNKNOWN ALKANE	31.46	10000.	J
18.	- -	UNKNOWN ALKANE	34.27	8000.	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CBF76

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0005

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA428

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 23. Date Analyzed: 1/10/90

Column: (pack/cap) PACK Dilution Factor: 12.50

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	Dichloro-Benzene isomer	29.78	90000.	J
2. - -	Dichloro-Benzene isomer	30.67	800000.	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CBF76 RE

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0005

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA431

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 23. Date Analyzed: 1/10/90

Column: (pack/cap) PACK Dilution Factor: 12.50

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	Dichloro-Benzene isomer	29.75	90000.	J
2. - -	Dichloro-Benzene isomer	30.65	800000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CBF76

Lab Name: REDMD Contract: 68W80051

Lab Code: REDMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0005

Sample wt/vol: 1.000 (g/mL) G Lab File ID: DA579

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 23. dec._____ Date Extracted: 1/10/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 1.00

Number TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1. 110-82-7~~	~~Cyclohexane(BDT (8CISCI)~~	~~2.68~~	~~300000.~~	~~BJ~~
2. 108-90-7	Benzene, chloro- (8CISCI)	6.40	30000.	J
3. 87-61-6	Benzene, 1,2,3-trichloro- (8	13.44	100000.	J
4. 634-90-2	Benzene, 1,2,3,5-tetrachloro	15.25	20000.	J
5. 634-66-2	Benzene, 1,2,3,4-tetrachloro	16.00	80000.	J
6. 608-93-5	Benzene, pentachloro- (8C19C	17.99	10000.	J
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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CBF77

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0006

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA429

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 44. Date Analyzed: 1/10/90

Column: (pack/cap) PACK Dilution Factor: 10.00

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	Dichloro-Benzene isomer	29.75	70000.	J
2. - -	Dichloro-Benzene isomer	30.68	300000.	J
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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CBF77 RE

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0006

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA432

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 44. Date Analyzed: 1/10/90

Column: (pack/cap) PACK Dilution Factor: 10.00

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	Dichloro-Benzene isomer ____	29.77	70000.	J
2. - -	Dichloro-Benzene isomer ____	30.66	300000.	J
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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CBF77

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF7Z

Matrix: (soil/water) SOIL Lab Sample ID: BS0006

Sample wt/vol: 30.0 (g/mL) G Lab File ID: DAE8S

Level: (low/med) LOW Date Received: 1/ 5/90

% Moisture: not dec. 44. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) Y pH: 5.2 Dilution Factor: 1.00

Number TICs found: 16

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN	2.66	6000.	J
~~2. - -~~	~~UNKNOWN~~	~~5.77~~	~~2000.~~	~~BJ~~
~~3. - -~~	~~UNKNOWN~~	~~5.91~~	~~2000.~~	~~BJ~~
~~4. - -~~	~~UNKNOWN~~	~~8.40~~	~~20000.~~	~~BJ~~
~~5. - -~~	~~UNKNOWN~~	~~7.84~~	~~600.~~	~~BJ~~
~~6. - -~~	~~UNKNOWN~~	~~8.49~~	~~2000.~~	~~BJ~~
7. - -	UNKNOWN	9.35	1000.	J
8. - -	UNKNOWN	10.49	3000.	J
9. 87-61-6	Benzene, 1,2,3-trichloro- (8	13.40	3000.	J
10. 634-90-2	Benzene, 1,2,3,5-tetrachloro	15.23	1000.	J
11. 634-66-2	Benzene, 1,2,3,4-tetrachloro	15.97	4000.	J
12. - -	UNKNOWN ALKANE	16.82	1000.	J
13. - -	UNKNOWN ALKANE	19.21	1000.	J
14. - -	UNKNOWN ALKANE	19.90	2000.	J
15. - -	UNKNOWN	30.96	4000.	J
16. - -	UNKNOWN	31.43	5000.	J
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DJD 4/3/90

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CBF78

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0007

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA427

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 60. Date Analyzed: 1/10/90

Column: (pack/cap) PACK Dilution Factor: 10.00

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	Dichloro-Benzene isomer	29.74	50000.	J
2. - -	Dichloro-Benzene isomer	30.67	200000.	J
3.				
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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CBF78 RE

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0007

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA430

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 60. Date Analyzed: 1/10/90

Column: (pack/cap) PACK Dilution Factor: 10.00

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	Dichloro-Benzene isomer	29.80	50000.	J
2. - -	Dichloro-Benzene isomer	30.65	200000.	J
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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CBF78

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

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

Sample wt/vol: 30.0 (g/mL) G Lab File ID: DA249

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 60. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/11/90

GPC Cleanup: (Y/N) Y pH: 6.4 Dilution Factor: 2.00

Number TICs found: 9

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1.~~	~~UNKNOWN~~	~~6.15~~	~~3000.~~	~~BJ~~
~~2.~~	~~UNKNOWN~~	~~6.21~~	~~3000.~~	~~BJ~~
~~3.~~	~~UNKNOWN~~	~~6.84~~	~~200000.~~	~~BJ~~
~~4.~~	~~UNKNOWN~~	~~8.91~~	~~3000.~~	~~BJ~~
5.	UNKNOWN	10.91	5000.	J
6. 108-70-3	Benzene, 1,3,5-trichloro- (8	13.92	30000.	J
7. 634-90-2	Benzene, 1,2,3,5-tetrachloro	15.76	9000.	J
8. 634-66-2	Benzene, 1,2,3,4-tetrachloro	16.51	30000.	J
9. 608-93-5	Benzene, pentachloro- (8CI9C	18.55	8000.	J
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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CBF79

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) WATER Lab Sample ID: BW0008

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA407

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 100. Date Analyzed: 1/ 8/90

Column: (pack/cap) PACK Dilution Factor: 2.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	NO SIGNIFICANT PEAKS PRESENT			
2.				
3.				
4.				
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FORM I VOA-TIC 1/87 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CBF79

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) WATER Lab Sample ID: BW0008

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: BA232

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 100. dec._____ Date Extracted: 1/ 8/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 1/ 9/90

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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FORM I SV-TIC 1/87 Rev.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CBF80

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) WATER Lab Sample ID: BW0009

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA406

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 100. Date Analyzed: 1/ 8/90

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	NO SIGNIFICANT PEAKS PRESENT			
2.				
3.				
4.				
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FORM I VOA-TIC 1/87 Rev.

WESTON

Appendix E

Organic Regional Data Assessment Summary

WESTON

DPO: [ ] ACTION [X] FYI

Region III

ORGANIC REGIONAL DATA ASSESSMENT SUMMARY

CASE NO: 13413
SDG NO: CBF72
SOW: 2/88
NO. OF SAMPLES: 2

LABORATORY: RECMD
DATA USER: Charles Sands
REVIEW COMPLETION DATE: 04/04/90
MATRIX: Aqueous

REVIEWER: ESAT

	VOA	BNA	PEST	OTHER
1. HOLDING TIMES	O	O	O	
2. GC-MS TUNE/GC PERFORMANCE	O	O	O	
3. INITIAL CALIBRATIONS	X	X	O	
4. CONTINUING CALIBRATION	M	X	O	
5. FIELD BLANKS (F=NOT APPLICABLE)	X	O	O	
6. LABORATORY BLANKS	X	O	O	
7. SURROGATES	O	O	O	
8. MATRIX SPIKE/DUPLICATES	O	O	O	
9. REGIONAL QC (F=NOT APPLICABLE)	F	F	F	
10. INTERNAL STANDARDS	O	O		
11. COMPOUND IDENTIFICATION	O	O	O	
12. COMPOUND QUANTITATION	O	O	O	
13. SYSTEM PERFORMANCE	O	O	O	
14. OVERALL ASSESSMENT	M	X	O	

O = No problems or minor problems that do not affect data usability
X = No more than about 5% of the data points are qualified as either estimated or unusable.
M = More than about 5% of the data points are qualified as estimated.
Z = More than about 5% of the data points are qualified as unusable.
A = DPO action requested; use in conjunction with one of the above codes.

DPO ACTION ITEMS:

AREAS OF CONCERN:

DOCUMENTATION ATTACHED (See Following Pages)

WESTON

DPO: [ ] ACTION [X] FYI

Region III

ORGANIC REGIONAL DATA ASSESSMENT SUMMARY

CASE NO: 13413
SDG NO: CBF72
SOW: 2/88
NO. OF SAMPLES: 7

LABORATORY: RECMD
DATA USER: Charles Sands
REVIEW COMPLETION DATE: 04/04/90
MATRIX: SOIL

REVIEWER: ESAT

	VOA	BNA	PEST	OTHER
1. HOLDING TIMES	O	O	O	
2. GC-MS TUNE/GC PERFORMANCE	O	O	O	
3. INITIAL CALIBRATIONS	X	X	O	
4. CONTINUING CALIBRATION	X	X	O	
5. FIELD BLANKS (F=NOT APPLICABLE)	X	O	O	
6. LABORATORY BLANKS	X	X	O	
7. SURROGATES	M	O	O	
8. MATRIX SPIKE/DUPLICATES	O	O	O	
9. REGIONAL QC (F=NOT APPLICABLE)	F	F	F	
10. INTERNAL STANDARDS	O	O		
11. COMPOUND IDENTIFICATION	O	O	O	
12. COMPOUND QUANTITATION	O	O	O	
13. SYSTEM PERFORMANCE	O	O	O	
14. OVERALL ASSESSMENT	M	X	O	

O = No problems or minor problems that do not affect data usability
X = No more than about 5% of the data points are qualified as either estimated or unusable.
M = More than about 5% of the data points are qualified as estimated.
Z = More than about 5% of the data points are qualified as unusable.
A = DPO action requested; use in conjunction with one of the above codes.

DPO ACTION ITEMS:

AREAS OF CONCERN:

DOCUMENTATION ATTACHED (See Following Pages)

WESTON SM

ORGANIC REGIONAL DATA ASSESSMENT SUMMARY NOTES
Case 13413 SDG CBF72 Aqueous Samples

Item 3A Methylene chloride had a %RSD greater than 30% during a volatiles initial calibration. (See Table I in Appendix F).

Item 3B Benzoic acid and 2,4-dinitrophenol had %RSD's greater than 30% in a semivolatiles initial calibration. (See Table I in Appendix F).

Item 3C The pesticide/PCB initial calibration linearity check run on the confirmation column had percent Relative Standard Deviations (%RSD's) greater than 10% for 4,4'-DDT and DBC. Because this column was used only for confirmation, and since no DDT was determined in the samples, no data was affected. (See Form VIII in Appendix F).

Item 4A Several compounds had percent differences (%D's) greater than 25% in a volatiles continuing calibration. (See Table I in Appendix F).

Item 4B Benzoic acid and 2,4-dinitrophenol had %D's greater than 25% in a semivolatile continuing calibration. (See Table I in Appendix F).

Item 4C The Individual A and B mixes run on 1/10/90 and 1/11/90, respectively, on the quantitation column each had one compound with a percent difference between calibration factors greater than 15%. No positive results were determined for either compound, therefore, no data were qualified. (See Form IX in Appendix F).

Item 5A The maximum concentrations of all compounds appearing in the volatiles analysis of the trip or equipment blanks are listed below. Because qualifications for blank contaminants are applied across sample matrices and analysis levels, the blank concentrations are reported as they appear on the Form I's, and the equivalent low level analysis concentrations used to qualify sample data. (Also see Data Summary in Appendix B).

Compound	Concentration (ug/L) Form I	Low Level
Methylene chloride *	280	140
Acetone *	37	19
1,2-Dichloroethene	7 J	4 J
Chloroform	14	7
Total xylenes	4 J	4 J

* = Common Laboratory Contaminant

Item 6A The maximum concentrations of all compounds appearing in the laboratory method blanks are listed below. Because qualifications for blank contaminants are applied across sample matrices and analysis levels, the blank concentrations are reported as they appear on the Form I's, and the equivalent low level analysis concentrations used to qualify sample data. (Also see Appendix F).

Compound	Concentration Form I	Low Level	
Methylene chloride *	280	140	ug/Kg
Acetone *	2600	21	ug/Kg
1,2-Dichloroethene	3 J	3 J	ug/Kg
2-Butanone *	340 J	3 J	ug/Kg
Total xylenes	3 J	3 J	ug/Kg
Diethylphthalate *	71 J	71 J	ug/Kg
bis(2-Ethylhexyl)phthalate *	210 J	210 J	ug/Kg

* = Common Laboratory Contaminant

Item 6B See Item 6A

ORGANIC REGIONAL DATA ASSESSMENT SUMMARY NOTES
Case 13413 SDG CBF72 Soil Samples

Item 3A The response factor for 2-butanone was less than 0.05, and acetone had a %RSD greater than 30% during a volatiles initial calibration. (See Table I in Appendix F).

Item 3B Benzoic acid and 2,4-dinitrophenol had %RSD's greater than 30% in a semivolatiles initial calibration. (See Table I in Appendix F).

Item 3C The initial calibration linearity check run on the confirmation column had percent Relative Standard Deviations (%RSD's) greater than 10% for 4,4'-DDT and DBC. Because this column was used only for confirmation, and since no DDT was determined in the samples, no data was affected. (See Form VIII in Appendix F).

Item 4A The response factor for 2-butanone was less than 0.05, and several compounds had percent differences (%D's) greater than 25% in a volatiles continuing calibration. (See Table I in Appendix F).

Item 4B Several compounds had %D's greater than 25% in the semi-volatile continuing calibrations. (See Table I in Appendix F).

Item 4C The Individual A and B mixes run on 1/10/90 and 1/11/90, respectively, on the quantitation column each had one compound with a percent difference between calibration factors greater than 15%. No positive results were determined for either compound, therefore, no data were qualified. (See Form IX in Appendix F).

Item 5A The maximum concentrations of all compounds appearing in the volatiles analysis of the trip or equipment blanks are listed below. Because qualifications for blank contaminants are applied across sample matrices and analysis levels, the blank concentrations are reported as they appear on the Form I's, and the equivalent low level analysis concentrations used to qualify sample data. (Also see Data Summary in Appendix B).

Compound	Concentration (ug/L) Form I	Low Level
Methylene chloride *	280	140
Acetone *	37	19
1,2-Dichloroethene	7 J	4 J
Chloroform	14	7
Total xylenes	4 J	4 J

* = Common Laboratory Contaminant

Item 6A The maximum concentrations of all compounds appearing in the laboratory method blanks are listed below. Because qualifications for blank contaminants are applied across sample matrices and analysis levels, the blank concentrations are reported as they appear on the Form I's, and the equivalent low level analysis concentrations used to qualify sample data. (Also see Appendix F).

Compound	Concentration Form I	Low Level	
Methylene chloride *	280	140	ug/Kg
Acetone *	2600	21	ug/Kg
1,2-Dichloroethene	3 J	3 J	ug/Kg
2-Butanone *	340 J	3 J	ug/Kg
Total xylenes	3 J	3 J	ug/Kg
Diethylphthalate *	71 J	71 J	ug/Kg
bis(2-Ethylhexyl)phthalate *	210 J	210 J	ug/Kg

* = Common Laboratory Contaminant

Item 6B See Item 6A

Item 7A Recoveries of the volatile surrogate Bromofluorobenzene were above the QC limit for samples CBF76, -77, and -78. Reanalyses had the same surrogates out.

Item 7B The semivolatile analyses of samples CBF73, -77, and -72MS had high recoveries of the surrogate terphenyl-d14. (See Form II in Appendix F).

Item 8A The volatile MS/MSD analyses of sample CBF72 had two (2) out of ten (10) spike recoveries outside the QC limits. (See Form III in Appendix F).

Item 8B One field duplicate pair was analyzed by the laboratory. One of the duplicate samples was used for the MS/MSD analyses. Non-spiked compounds other than blank contaminants were determined in the MS/MSD analyses of sample CBF72. The results and precision estimates are as follows:

Compound	Concentration (ug/Kg) CBF72	CBF73	-72MS	-72MSD	%RSD
1,3-Dichlorobenzene	450 J	450 J	350 J	330 J	16
1,4-Dichlorobenzene *	1300	1400	---	---	7 +
Trichlorobenzene *	120 J	130 J	---	---	8 +
Aroclor-1260	400 J	530	240 J	520	32

%RSD = Percent Relative Standard Deviation
* = Spiked Compound, not evaluated in MS/MSD
\+ = Result is Relative Percent Difference

The low level MS/MSD analysis had one (1) out of twenty-two (22) spike recoveries outside the QC limits. The medium level MS/MSD analysis had four (4) out of eleven (11) RPD's and three (3) out of twenty-two (22) spike recoveries out. (See Form III in Appendix F).

Item 8C The pesticide/PCB MS/MSD analyses of sample CBF72 had three (3) out of six (6) RPD's and one (1) out of twelve (12) spike recoveries outside the QC limits. (See Form III in Appendix F).

WESTON

Appendix F

Support Documentation

TABLE I
ENVIRONMENTAL PROTECTION AGENCY REGION III
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE/SAS No. 13413 CONTRACTOR RECMD

Instrument# 70011	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME	1/8/1/89			1/8/90 - 945											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane															
Bromomethane															
Vinyl Chloride															
Chloroethane															
Methylene Chloride		43.8	I+												
Acetone															
Carbon Disulfide															
1,1-Dichloroethene															
1,1-Dichloroethane															
Total-1,2-Dichloroethene															
Chloroform															
1,2-Dichloroethane					32.5	C									
2-Butanone															
1,1,1-Trichloroethane					28.3	C									
Carbon Tetrachloride					27.5	C									
Vinyl Acetate					41.0	C									
Bromodichloromethane															
1,2-Dichloropropane															
Cis-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
Trans-1,3-Dichloropropene															
Bromoform															
4-Methyl-2-pentanone					39.4	C									
2-Hexanone															
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
Total Xylenes															

AFFECTED SAMPLES:

VBLKW1	VBLKW1
CBF79	CBF79
CBF80	CBF80

Reviewer Initials/Date: DJJ 4/4/90

* See Last page of this table for DEFINITION OF CODES.

TABLE I
ENVIRONMENTAL PROTECTION AGENCY REGION III
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE SAS No. 13413 CONTRACTOR RECMD

Instrument# 70011	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Ca		
Date/Time:	12/20/90			11/9/90 - 959			11/10/90 - 1106								
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	
Chloromethane															
Bromomethane															
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone		31.1	I+					69.8	C+						
Carbon Disulfide								28.1	C						
1,1-Dichloroethene															
1,1-Dichloroethane															
Total-1,2-Dichloroethene															
Chloroform															
1,2-Dichloroethane															
2-Butanone	0.0431		F	0.0451		F		33.0	CR						
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate					30.7	C		40.4	C						
Bromodichloromethane															
1,2-Dichloropropane															
Cis-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
Trans-1,3-Dichloropropene															
Bromoform															
4-Methyl-2-pentanone															
2-Hexanone															
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
Total Xylenes															

AFFECTED SAMPLES

All samples listed on this page	VBLKS1	VBLKS2
	CBF72	CBF76
	CBF73	CBF77
	CBF74	CBF78
	CBF75	CBF76 RE
	CBF72MS	CBF78 RE
	CBF72MSD	CBF77 RE

Reviewer Initials/Date: DJ 4/4/90

* See last page of this table for DEFINITION OF CODES.

TABLE I
ENVIRONMENTAL PROTECTION AGENCY REGION III
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS (Part 1 of 2)

CASE/SAS No. 13413 CONTRACTOR RECMD

Instrument# 700202	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	11/4/90			11/9/90-910			11/10/90-1229								
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol															
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-di-n-Propylamine															
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid		33.8	I		35.1	C									
bis(2-Chloroethoxy)methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
2,6 Dinitrotoluene															
3-Nitroaniline															
Acenaphthene															
2,4-Dinitrophenol		34.8	I		35.7	C									
4-Nitrophenol								27.1							
Dibenzofuran															

AFFECTED SAMPLES:			
	SBLK1	SBLK1	SBLK2
	CBF79	CBF79	CBF72
	SBLK2		CBF72MS
	CBF72		CBF72MSD
	CBF72MS		
	CBF72MSD		

Reviewer Initials/Date: DJO 4/4/90

* See last page of this table for DEFINITION OF CODES.

TABLE I
ENVIRONMENTAL PROTECTION AGENCY REGION III
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS (Part 2 of 2)

CASE SAS No. 13413 CONTRACTOR RECMD

Instrument# 700202	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	11/4/90			11/9/90 - 910			11/10/90 - 1229								
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline															
4,6-Dinitro-2-Methyl-phenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-butylphthalate															
Fluoranthene															
Pyrene								40.6	C						
Butylbenzylphthalate															
3,3-Dichlorobenzidine															
Benzo(a)anthracene															
Chrysene															
bis(2-Ethylhexyl)phthalate								25.5	C						
Di-n-octylphthalate															
Benzo(b)fluoranthene															
Benzo(k)fluoranthene															
Benzo(a)pyrene															
Indeno(1,2,3-cd)pyrene															
Dibenz(a,h)anthracene															
Benzo(g,h,i)perylene															

AFFECTED SAMPLES:			
	SBLK1	SBLK1	SBLK2
	CBF79	CBF79	CBF72
	SBLK2		CBF72MS
	CBF72		CBF72MSD
	CBF72MS		
	CBF72MSD		

Reviewer Initials/Date: DJO 4/4/90

* See last page of this table for DEFINITION OF CODES.

TABLE I
ENVIRONMENTAL PROTECTION AGENCY REGION III
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS (Part 1 of 2)

CASE SAS No. 13413 CONTRACTOR RECMD

Instrument# 700404	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	11/5/90			11/10/90-1201											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(2-Chloroethyl)Ether					25.8	C									
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol															
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether					31.7	C									
4-Methylphenol															
N-Nitroso-di-n-Propylamine					37.0	C									
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid															
bis(2-Chloroethoxy)methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline					33.4	C									
Dimethyl Phthalate															
Acenaphthylene															
2,6 Dinitrotoluene															
3-Nitroaniline															
Acenaphthene															
2,4-Dinitrophenol					27.8	C									
4-Nitrophenol															
Dibenzofuran															

AFFECTED SAMPLES:

SBLK3
CBF76
CBF76MS
CBF76MSD
CBF73
CBF75
CBF77

Reviewer Initials/Date: DJB 4/4/90

* See last page of this table for DEFINITION OF CODES.

WESTON

DEFINITION OF CODES USED IN TABLE I

I = %RSD exceeded 30% in the initial calibration, positive results are qualified "J", and quantitation limits are qualified "UJ".

C = %D exceeded 25% in the continuing calibration. Positive results are qulified "J", and quantitation limits are qualified "UJ".

F = RF less than 0.05 in all calibrations. All quantitation limits are qualified "R".

+ = The "B" qualifier, denoting blank contamination, supersedes the qualifier issued in this table.

L = The "L" qualifier, denoting low bias of results, supersedes the qualifier issued in this table.

R = The "R" qualifier, denoting unusuable results, supersedes the qualifier issued in this table.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Instrument ID: 70011 Calibration Date(s): 12/ 1/89 12/ 1/89

Matrix:(soil/water) WATER Level:(low/med): LOW Column:(pack/cap) PACK

Min $\overline{RRF}$ for SPCC(#) = .300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF020= XA186 RRF050= XA179
RRF100= XA183 RRF150= XA182 RRF200= XA181

COMPOUND	RRF020	RRF050	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD
Chloromethane #	.505	.491	.522	.572	.484	.515	6.9#
Bromomethane	1.030	1.043	1.100	1.155	1.059	1.077	4.7
Vinyl Chloride *	.643	.657	.728	.815	.694	.707	9.7*
Chloroethane	.466	.476	.495	.535	.506	.496	5.5
Methylene Chloride	2.505	1.036	1.275	1.214	1.041	1.414	43.8
Acetone	.408	.293	.276	.181	.265	.285	28.6
Carbon Disulfide	2.264	2.746	2.545	2.746	2.712	2.602	7.9
1,1-Dichloroethene *	.762	.839	.737	.906	.841	.817	8.3*
1,1-Dichloroethane #	2.090	2.210	2.016	2.280	2.150	2.150	4.8#
1,2-Dichloroethene (total)	.837	.965	.925	.978	.923	.926	6.0
Chloroform *	3.084	3.279	2.991	3.348	3.193	3.179	4.5*
1,2-Dichloroethane	2.418	2.614	2.507	2.452	2.425	2.483	3.3
2-Butanone	.063	.081	.052	.053	.076	.065	20.1
1,1,1-Trichloroethane	.756	.942	.878	.914	.895	.877	8.1
Carbon Tetrachloride	.665	.810	.707	.854	.829	.773	10.6
Vinyl Acetate	.519	.463	.471	.459	.511	.484	5.8
Bromodichloromethane	.972	1.085	1.019	.987	1.033	1.019	4.3
1,2-Dichloropropane *	.338	.347	.323	.341	.344	.339	2.7*
cis-1,3-Dichloropropene	.612	.674	.646	.622	.659	.643	4.0
Trichloroethene	.372	.399	.356	.394	.392	.383	4.7
Dibromochloromethane	.792	.830	.754	.782	.807	.793	3.6
1,1,2-Trichloroethane	.316	.298	.283	.282	.281	.292	5.1
Benzene	.625	.658	.652	.652	.659	.649	2.2
trans-1,3-Dichloropropene	.522	.565	.537	.497	.528	.530	4.6
Bromoform #	.628	.660	.670	.619	.661	.648	3.5#
4-Methyl-2-Pentanone	.381	.309	.290	.272	.285	.308	14.1
2-Hexanone	.222	.325	.195	.183	.296	.244	25.8
Tetrachloroethene	.460	.497	.446	.513	.476	.478	5.7
1,1,2,2-Tetrachloroethane #	.555	.510	.538	.487	.491	.516	5.8#
Toluene *	.572	.583	.582	.583	.559	.576	1.8*
Chlorobenzene #	.850	.841	.784	.879	.837	.838	4.1#
Ethylbenzene *	.341	.370	.362	.380	.359	.362	4.0*
Styrene	.795	.835	.779	.79	[illegible]	[illegible]	2.5
Xylene (total)	.448	.472	.443	.461	[illegible]	[illegible]	2.5
Toluene d-8	1.205	1.174	1.167	1.173	1.138	1.171	2.0
Bromofluorobenzene	1.099	1.140	1.124	1.126	1.119	1.121	1.3
1,2-Dichloroethane-d4	2.356	2.496	2.468	2.540	2.521	2.476	2.9

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Instrument ID: 70011 Calibration Date: 1/ 8/90 Time: 9:45

Lab File ID: XA403 Init. Calib. Date(s): 12/ 1/89 12/ 1/89

Matrix:(soil/water) WATER Level:(low/med): LOW Column:(pack/cap) PACK

Min RRF50 for SPCC(#) = .300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Chloromethane	#	.515	.505	1.8	#
Bromomethane		1.077	1.124	4.3	
Vinyl Chloride	*	.707	.638	9.8	*
Chloroethane		.496	.477	3.8	
Methylene Chloride		1.414	1.089	23.0	
Acetone		.285	.219	23.2	
Carbon Disulfide		2.602	2.310	11.2	
1,1-Dichloroethene	*	.817	.862	5.5	*
1,1-Dichloroethane	#	2.150	1.804	16.1	#
1,2-Dichloroethene (total)		.926	1.049	13.3	
Chloroform	*	3.179	2.587	18.6	*
1,2-Dichloroethane		2.483	1.677	32.5	
2-Butanone		.065	.055	14.4	
1,1,1-Trichloroethane		.877	.629	28.3	
Carbon Tetrachloride		.773	.560	27.5	
Vinyl Acetate		.484	.286	41.0	
Bromodichloromethane		1.019	.779	23.5	
1,2-Dichloropropane	*	.339	.283	16.5	*
cis-1,3-Dichloropropene		.643	.550	14.5	
Trichloroethene		.383	.422	10.3	
Dibromochloromethane		.793	.730	7.9	
1,1,2-Trichloroethane		.292	.285	2.5	
Benzene		.649	.621	4.4	
trans-1,3-Dichloropropene		.530	.410	22.6	
Bromoform	#	.648	.599	7.6	#
4-Methyl-2-Pentanone		.308	.186	39.4	
2-Hexanone		.244	.189	22.5	
Tetrachloroethene		.478	.529	10.7	
1,1,2,2-Tetrachloroethane	#	.516	.418	19.0	#
Toluene	*	.576	.571	.8	*
Chlorobenzene	#	.838	.879	4.9	#
Ethylbenzene	*	.362	.365	.8	*
Styrene		.803	.8[illegible]	[illegible]	
Xylene (total)		.455	.469	[illegible]	
Toluene d-8		1.171	.972	17.0	
Bromofluorobenzene		1.121	.947	15.5	
1,2-Dichloroethane-d4		2.476	1.414	42.9	

Samples
VBLKW1
CBF79
CBF80

AR301212

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Instrument ID: 70011 Calibration Date(s): 12/20/89 12/20/89

Matrix:(soil/water) SOIL Level:(low/med): MED Column:(pack/cap) PACK

Min $\overline{RRF}$ for SPCC(#) = .300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF020= XA338 RRF050= XA334
RRF100= XA337 RRF150= XA336 RRF200= XA335

COMPOUND		RRF020	RRF050	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD
Chloromethane	#	.513	.538	.501	.485	.518	.511	3.9#
Bromomethane		.673	.633	.602	.548	.617	.614	7.4
Vinyl Chloride	*	.666	.671	.610	.499	.625	.614	11.3*
Chloroethane		.482	.503	.475	.449	.518	.485	5.5
Methylene Chloride		1.315	1.157	1.084	1.022	1.046	1.125	10.5
Acetone		.220	.147	.143	.119	.101	.146	31.1
Carbon Disulfide		1.696	1.770	1.778	1.650	1.814	1.741	3.8
1,1-Dichloroethene	*	.935	1.006	.995	.891	.960	.958	4.9*
1,1-Dichloroethane	#	1.841	1.815	1.855	1.714	1.792	1.803	3.1#
1,2-Dichloroethene (total)		.975	1.028	.998	.935	.987	.985	3.4
Chloroform	*	2.635	2.579	2.614	2.506	2.526	2.572	2.2*
1,2-Dichloroethane		1.642	1.566	1.627	1.563	1.553	1.590	2.6
2-Butanone		.050	.040	.047	.042	.039	.043	11.1
1,1,1-Trichloroethane		.608	.665	.641	.612	.638	.633	3.7
Carbon Tetrachloride		.530	.622	.614	.557	.611	.587	6.9
Vinyl Acetate		.143	.235	.218	.240	.246	.216	19.6
Bromodichloromethane		.692	.712	.726	.729	.732	.718	2.3
1,2-Dichloropropane	*	.273	.276	.279	.275	.273	.275	.9*
cis-1,3-Dichloropropene		.498	.514	.523	.524	.527	.517	2.3
Trichloroethene		.423	.414	.423	.391	.418	.414	3.2
Dibromochloromethane		.657	.659	.677	.673	.641	.661	2.1
1,1,2-Trichloroethane		.283	.270	.272	.276	.260	.272	3.0
Benzene		.612	.596	.631	.608	.620	.613	2.1
trans-1,3-Dichloropropene		.398	.392	.390	.396	.386	.392	1.2
Bromoform	#	.519	.503	.549	.562	.530	.532	4.4#
4-Methyl-2-Pentanone		.203	.163	.164	.165	.151	.169	11.6
2-Hexanone		.169	.125	.123	.127	.125	.134	14.7
Tetrachloroethene		.532	.560	.534	.485	.506	.524	5.4
1,1,2,2-Tetrachloroethane	#	.424	.403	.418	.418	.393	.411	3.1#
Toluene	*	.575	.591	.566	.545	.550	.565	3.3*
Chlorobenzene	#	.884	.883	.852	.830	.831	.856	3.1#
Ethylbenzene	*	.399	.381	.376	.357	.364	.375	4.3*
Styrene		.866	.795	.804	.781			4.2
Xylene (total)		.584	.462	.463	.446			2.2
Toluene d-8		1.057	1.045	1.039	1.031	1.028	1.040	1.1
Bromofluorobenzene		.917	.903	.883	.888	.870	.892	2.0
1,2-Dichloroethane-d4		1.482	1.442	1.534	1.533	1.601	1.518	4.0

AR301213

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Instrument ID: 70011 Calibration Date: 1/ 9/90 Time: 9:59

Lab File ID: XA410 Init. Calib. Date(s): 12/20/89 12/20/89

Matrix:(soil/water) SOIL Level:(low/med): MED Column:(pack/cap) PACK

Min RRF50 for SPCC(#) = .300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Chloromethane	#	.511	.427	16.5	#
Bromomethane		.614	.536	12.8	
Vinyl Chloride	*	.614	.540	12.2	*
Chloroethane		.485	.424	12.6	
Methylene Chloride		1.125	1.021	9.2	
Acetone		.146	.160	9.9	
Carbon Disulfide		1.741	1.938	11.3	
1,1-Dichloroethene	*	.958	.788	17.7	*
1,1-Dichloroethane	#	1.803	1.685	6.6	#
1,2-Dichloroethene (total)		.985	.855	13.2	
Chloroform	*	2.572	2.540	1.3	*
1,2-Dichloroethane		1.590	1.679	5.6	
2-Butanone		.043	.045	3.6	
1,1,1-Trichloroethane		.633	.576	8.9	
Carbon Tetrachloride		.587	.551	6.1	
Vinyl Acetate		.216	.283	30.7	
Bromodichloromethane		.718	.732	2.0	
1,2-Dichloropropane	*	.275	.261	5.3	*
cis-1,3-Dichloropropene		.517	.510	1.5	
Trichloroethene		.414	.394	4.8	
Dibromochloromethane		.661	.686	3.8	
1,1,2-Trichloroethane		.272	.266	2.4	
Benzene		.613	.546	11.0	
trans-1,3-Dichloropropene		.392	.414	5.5	
Bromoform	#	.532	.565	6.1	#
4-Methyl-2-Pentanone		.169	.168	1.0	
2-Hexanone		.134	.120	10.3	
Tetrachloroethene		.524	.495	5.4	
1,1,2,2-Tetrachloroethane	#	.411	.391	5.0	#
Toluene	*	.565	.520	8.1	*
Chlorobenzene	#	.856	.843	1.5	#
Ethylbenzene	*	.375	.338	10.0	*
Styrene		.807	.749	7.2	
Xylene (total)		.480	.429	10.6	
Toluene d-8		1.040	1.063	2.-	
Bromofluorobenzene		.892	.941	5.5	
1,2-Dichloroethane-d4		1.518	1.556	2.5	

Samples
VBLKS1
CBF72
CBF73
CBF74
CBF75
CBF72MS
CBF72MSD

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Instrument ID: 70011 Calibration Date: 1/10/90 Time: 11:06

Lab File ID: XA424 Init. Calib. Date(s): 12/20/89 12/20/89

Matrix:(soil/water) SOIL Level:(low/med): MED Column:(pack/cap) PACK

Min RRF50 for SPCC(#) = .300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Chloromethane	#	.511	.449	12.2	#
Bromomethane		.614	.573	6.8	
Vinyl Chloride	*	.614	.569	7.4	*
Chloroethane		.485	.457	5.9	
Methylene Chloride		1.125	1.151	2.3	
Acetone		.146	.248	69.8	
Carbon Disulfide		1.741	2.231	28.1	
1,1-Dichloroethene	*	.958	.871	9.0	*
1,1-Dichloroethane	#	1.803	1.801	.2	#
1,2-Dichloroethene (total)		.985	.946	4.0	
Chloroform	*	2.572	2.675	4.0	*
1,2-Dichloroethane		1.590	1.737	9.2	
2-Butanone		.043	.058	33.0	
1,1,1-Trichloroethane		.633	.653	3.2	
Carbon Tetrachloride		.587	.605	3.2	
Vinyl Acetate		.216	.304	40.4	
Bromodichloromethane		.718	.769	7.0	
1,2-Dichloropropane	*	.275	.278	.9	*
cis-1,3-Dichloropropene		.517	.546	5.6	
Trichloroethene		.414	.417	.9	
Dibromochloromethane		.661	.716	8.2	
1,1,2-Trichloroethane		.272	.276	1.5	
Benzene		.613	.601	2.1	
trans-1,3-Dichloropropene		.392	.441	12.3	
Bromoform	#	.532	.563	5.7	#
4-Methyl-2-Pentanone		.169	.177	4.7	
2-Hexanone		.134	.157	17.3	
Tetrachloroethene		.524	.508	3.0	
1,1,2,2-Tetrachloroethane	#	.411	.400	2.8	#
Toluene	*	.565	.553	2.2	*
Chlorobenzene	#	.856	.85[illegible]	[illegible]	#
Ethylbenzene	*	.375	.36[illegible]		
Styrene		.807	.808	.1	
Xylene (total)		.480	.466	3.0	
Toluene d-8		1.040	1.055	1.4	
Bromofluorobenzene		.892	.930	4.3	
1,2-Dichloroethane-d4		1.518	1.592	4.8	

Samples
VBLK52
CBF76
CBF77
CBF78
CBF76 RE
CBF77 RE
CBF78 RE

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Instrument ID: 700202 Calibration Date(s): 1/ 4/90 1/ 4/90

Min $\overline{RRF}$ for SPCC(#) = .050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF020= YA205 RRF050= YA204
RRF080= YA203 RRF120= YA202 RRF160= YA200

COMPOUND		RRF020	RRF050	RRF080	RRF120	RRF160	$\overline{RRF}$	% RSD
Phenol	*	1.705	1.640	1.613	1.633	1.673	1.653	2.2*
bis(2-Chloroethyl)ether		1.679	1.550	1.559	1.615	1.622	1.605	3.3
2-Chlorophenol		1.525	1.414	1.410	1.425	1.387	1.432	3.7
1,3-Dichlorobenzene		1.740	1.663	1.650	1.640	1.603	1.659	3.0
1,4-Dichlorobenzene	*	1.802	1.686	1.711	1.632	1.589	1.684	4.8*
Benzyl alcohol		.795	.811	.762	.795	.830	.799	3.1
1,2-Dichlorobenzene		1.642	1.553	1.508	1.518	1.444	1.533	4.7
2-Methylphenol		1.206	1.148	1.104	1.116	1.170	1.149	3.6
bis(2-Chloroisopropyl)ether		2.303	2.194	2.128	2.197	2.234	2.211	2.9
4-Methylphenol		1.110	1.089	1.031	1.100	1.064	1.079	2.9
N-Nitroso-di-n-propylamine	#	1.282	1.207	1.183	1.219	1.170	1.212	3.6#
Hexachloroethane		.777	.726	.731	.718	.720	.734	3.3
Nitrobenzene		.496	.502	.474	.497	.490	.492	2.2
Isophorone		.908	.886	.834	.883	.792	.861	5.[illegible]
2-Nitrophenol	*	.197	.206	.201	.219	.211	.207	4.[illegible]
2,4-Dimethylphenol		.449	.413	.402	.444	.429	.427	4.7
Benzoic acid			.069	.058	.098	.123	.087	33.8
bis(2-Chloroethoxy)methane		.553	.553	.505	.558	.538	.542	4.0
2,4-Dichlorophenol	*	.307	.314	.303	.303	.306	.307	1.4*
1,2,4-Trichlorobenzene		.396	.380	.349	.349	.346	.364	6.2
Naphthalene		1.160	1.113	1.077	1.107	.911	1.074	8.9
4-Chloroaniline		.482	.465	.431	.464	.455	.459	4.0
Hexachlorobutadiene	*	.238	.222	.208	.198	.187	.210	9.5*
4-Chloro-3-methylphenol	*	.320	.332	.312	.333	.353	.330	4.6*
2-Methylnaphthalene		.659	.660	.598	.631	.629	.635	4.0
Hexachlorocyclopentadiene	#	.392	.431	.406	.434	.445	.422	5.2#
2,4,6-Trichlorophenol	*	.422	.403	.407	.441	.465	.428	5.9*
2,4,5-Trichlorophenol			.446	.417	.374	.354	.398	10.5
2-Chloronaphthalene		1.501	1.418	1.390	1.349	1.344	1.400	4.6
2-Nitroaniline			.524	.520	.552	.567	.541	4.2
Dimethylphthalate		1.621	1.611	1.581	1.617	1.615	1.609	1.0
Acenaphthylene		2.204	2.159	2.111	1.984	1.930	2.078	5.6
2,6-Dinitrotoluene		.342	.374	.371	.346	.333	.353	5.1
3-Nitroaniline			.333	.329	.355	.359	.344	4.4
Acenaphthene	*	1.398	1.381	1.284	1.273	1.264	1.320	4.8*
2,4-Dinitrophenol	#		.050	.064	.090	.112	.079	34.8#
4-Nitrophenol	#		.127	.139	.171	.174	.153	15.5#

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AR301216

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Instrument ID: 700202 Calibration Date(s): 1/ 4/90 1/ 4/90

Min $\overline{RRF}$ for SPCC(#) = .050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF020= YA205 RRF050= YA204
RRF080= YA203 RRF120= YA202 RRF160= YA200

COMPOUND	RRF020	RRF050	RRF080	RRF120	RRF160	$\overline{RRF}$	% RSD
Dibenzofuran	1.872	1.821	1.753	1.744	1.791	1.796	2.9
2,4-Dinitrotoluene	.410	.458	.470	.503	.485	.465	7.6
Diethylphthalate	1.673	1.692	1.694	1.718	1.657	1.687	1.4
4-Chlorophenyl-phenylether	.630	.582	.565	.524	.517	.564	8.1
Fluorene	1.461	1.352	1.316	1.246	1.262	1.328	6.5
4-Nitroaniline		.263	.274	.306	.296	.285	7.0
4,6-Dinitro-2-methylphenol		.085	.092	.127	.118	.105	19.3
N-Nitrosodiphenylamine *	.627	.588	.584	.639	.627	.613	4.1*
4-Bromophenyl-phenylether	.268	.249	.242	.252	.245	.251	4.0
Hexachlorobenzene	.318	.295	.290	.287	.285	.295	4.5
Pentachlorophenol *		.088	.097	.129	.138	.113	21.3*
Phenanthrene	1.300	1.175	1.204	1.239	1.224	1.228	3.8
Anthracene	1.222	1.207	1.125	1.197	1.042	1.159	6.5
Di-n-butylphthalate	1.757	1.723	1.702	1.726	1.271	1.636	12.5
Fluoranthene *	1.130	1.036	1.002	1.071	.930	1.034	7.2*
Pyrene	2.538	2.192	2.152	2.067	2.167	2.223	8.2
Butylbenzylphthalate	1.222	1.071	1.108	1.071	1.105	1.115	5.5
3,3'-Dichlorobenzidine	.333	.362	.414	.418	.446	.395	11.6
Benzo(a)anthracene	1.161	1.166	1.204	1.234	1.196	1.192	2.5
Chrysene	1.323	1.241	1.338	1.172	1.339	1.283	5.8
bis(2-Ethylhexyl)phthalate	1.710	1.411	1.505	1.438	1.516	1.516	7.7
Di-n-octylphthalate *	3.537	3.387	3.301	3.420	3.157	3.360	4.2*
Benzo(b)fluoranthene	1.141	.919	1.173	1.194	1.147	1.115	10.0
Benzo(k)fluoranthene	1.829	1.968	1.665	1.605	1.548	1.723	10.0
Benzo(a)pyrene *	1.222	1.248	1.208	1.193	1.165	1.207	2.6*
Indeno(1,2,3-cd)pyrene	.961	1.127	1.105	1.217	1.041	1.090	8.8
Dibenzo(a,h)anthracene	.705	.845	.808	.886	.752	.799	9.0
Benzo(g,h,i)perylene	1.199	1.327	1.138	1.196	1.052	1.183	8.5
Nitrobenzene-d5	.482	.486	.460	.494	.497	.483	3.0
2-Fluorobiphenyl	1.665	1.598	1.580	1.500	1.527	1.574	4.1
Terphenyl-d14	1.791	1.570	1.558	1.457	1.602	1.596	7.6
Phenol-d5	1.658	1.590	1.520	1.517	1.573	1.572	3.7
2-Fluorophenol	1.433	1.324	1.308	1.296	1.303	1.333	4.3
2,4,6-Tribromophenol	.090	.109	.111	.120	.139	.114	15.7

(1) Cannot be separated from Diphenylamine

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7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Instrument ID: 700202 Calibration Date: 1/ 9/90 Time: 9:10

Lab File ID: YA230 Init. Calib. Date(s): 1/ 4/90 1/ 4/90

Min RRF50 for SPCC(#) = .050 Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Phenol	*	1.653	1.844	11.6	*
bis(2-Chloroethyl)ether		1.605	1.685	5.0	
2-Chlorophenol		1.432	1.488	3.9	
1,3-Dichlorobenzene		1.659	1.695	2.1	
1,4-Dichlorobenzene	*	1.684	1.693	.5	*
Benzyl alcohol		.799	.833	4.4	
1,2-Dichlorobenzene		1.533	1.562	1.9	
2-Methylphenol		1.149	1.200	4.5	
bis(2-Chloroisopropyl)ether		2.211	2.288	3.5	
4-Methylphenol		1.079	1.176	9.0	
N-Nitroso-di-n-propylamine	#	1.212	1.288	6.2	#
Hexachloroethane		.734	.724	1.4	
Nitrobenzene		.492	.469	4.7	
Isophorone		.861	.857	.5	
2-Nitrophenol	*	.207	.196	5.4	*
2,4-Dimethylphenol		.427	.387	9.4	
Benzoic acid		.087	.056	35.1	
bis(2-Chloroethoxy)methane		.542	.525	3.0	
2,4-Dichlorophenol	*	.307	.294	4.2	*
1,2,4-Trichlorobenzene		.364	.356	2.3	
Naphthalene		1.074	1.098	2.3	
4-Chloroaniline		.459	.449	2.3	
Hexachlorobutadiene	*	.210	.197	6.6	*
4-Chloro-3-methylphenol	*	.330	.327	.8	*
2-Methylnaphthalene		.635	.616	3.0	
Hexachlorocyclopentadiene	#	.422	.411	2.6	#
2,4,6-Trichlorophenol	*	.428	.385	10.0	*
2,4,5-Trichlorophenol		.398	.385	3.2	
2-Chloronaphthalene		1.400	1.426	1.8	
2-Nitroaniline		.541	.544	.6	
Dimethylphthalate		1.609	1.581	1.7	
Acenaphthylene		2.078	2.068	.5	
2,6-Dinitrotoluene		.353	.360	1.9	
3-Nitroaniline		.344	.351	2.0	
Acenaphthene	*	1.320	1.302	1.4	*
2,4-Dinitrophenol	#	.079	.051	35.7	#
4-Nitrophenol	#	.153	.154	.5	#

Samples
SBLK1
CBF79

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611

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Instrument ID: 700202 Calibration Date: 1/ 9/90 Time: 9:10

Lab File ID: YA230 Init. Calib. Date(s): 1/ 4/90 1/ 4/90

Min RRF50 for SPCC(#) = .050 Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Dibenzofuran		1.796	1.758	2.1	
2,4-Dinitrotoluene		.465	.460	1.1	
Diethylphthalate		1.687	1.579	6.4	
4-Chlorophenyl-phenylether		.564	.515	8.7	
Fluorene		1.328	1.251	5.8	
4-Nitroaniline		.285	.293	2.9	
4,6-Dinitro-2-methylphenol		.105	.104	1.1	
N-Nitrosodiphenylamine	*	.613	.675	10.2	*
4-Bromophenyl-phenylether		.251	.273	8.5	
Hexachlorobenzene		.295	.309	4.7	
Pentachlorophenol	*	.113	.089	21.3	*
Phenanthrene		1.228	1.205	1.9	
Anthracene		1.159	1.103	4.8	
Di-n-butylphthalate		1.636	1.395	14.7	
Fluoranthene	*	1.034	.833	19.4	*
Pyrene		2.223	2.748	23.6	
Butylbenzylphthalate		1.115	1.058	5.1	
3,3'-Dichlorobenzidine		.395	.400	1.4	
Benzo(a)anthracene		1.192	1.107	7.1	
Chrysene		1.283	1.237	3.6	
bis(2-Ethylhexyl)phthalate		1.516	1.173	22.6	
Di-n-octylphthalate	*	3.360	3.074	8.5	*
Benzo(b)fluoranthene		1.115	1.092	2.0	
Benzo(k)fluoranthene		1.723	1.910	10.9	
Benzo(a)pyrene	*	1.207	1.172	2.9	*
Indeno(1,2,3-cd)pyrene		1.090	.941	13.7	
Dibenzo(a,h)anthracene		.799	.635	20.6	
Benzo(g,h,i)perylene		1.183	.959	18.9	
Nitrobenzene-d5		.483	.469	3.0	
2-Fluorobiphenyl		1.574	1.587	.9	
Terphenyl-d14		1.596	1.791	12.3	
Phenol-d5		1.572	1.657	5.4	
2-Fluorophenol		1.333	1.357	1.8	
2,4,6-Tribromophenol		.114	.126	10.4	

(1) Cannot be separated from Diphenylamine

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Instrument ID: 700202 Calibration Date: 1/10/90 Time: 12:29

Lab File ID: YA235 Init. Calib. Date(s): 1/ 4/90 1/ 4/90

Min RRF50 for SPCC(#) = .050 Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Phenol	*	1.653	1.929	16.7	*
bis(2-Chloroethyl)ether		1.605	1.724	7.4	
2-Chlorophenol		1.432	1.520	6.1	
1,3-Dichlorobenzene		1.659	1.699	2.4	
1,4-Dichlorobenzene	*	1.684	1.777	5.6	*
Benzyl alcohol		.799	.849	6.4	
1,2-Dichlorobenzene		1.533	1.581	3.1	
2-Methylphenol		1.149	1.245	8.4	
bis(2-Chloroisopropyl)ether		2.211	2.255	2.0	
4-Methylphenol		1.079	1.276	18.2	
N-Nitroso-di-n-propylamine	#	1.212	1.364	12.5	#
Hexachloroethane		.734	.729	.7	
Nitrobenzene		.492	.487	.9	
Isophorone		.861	.914	6.3	
2-Nitrophenol	*	.207	.207	.1	*
2,4-Dimethylphenol		.427	.417	2.4	
Benzoic acid		.087	.086	1.1	
bis(2-Chloroethoxy)methane		.542	.525	3.1	
2,4-Dichlorophenol	*	.307	.310	1.2	*
1,2,4-Trichlorobenzene		.364	.347	4.8	
Naphthalene		1.074	1.082	.8	
4-Chloroaniline		.459	.456	.7	
Hexachlorobutadiene	*	.210	.198	5.9	*
4-Chloro-3-methylphenol	*	.330	.343	3.8	*
2-Methylnaphthalene		.635	.629	1.0	
Hexachlorocyclopentadiene	#	.422	.390	7.6	#
2,4,6-Trichlorophenol	*	.428	.427	.0	*
2,4,5-Trichlorophenol		.398	.448	12.7	
2-Chloronaphthalene		1.400	1.472	5.1	
2-Nitroaniline		.541	.582	7.7	
Dimethylphthalate		1.609	1.701	5.7	
Acenaphthylene		2.078	2.109	1.5	
2,6-Dinitrotoluene		.353	.379	7.3	
3-Nitroaniline		.344	.390	13.5	
Acenaphthene	*	1.320	1.385	4.9	*
2,4-Dinitrophenol	#	.079	.087	9.5	#
4-Nitrophenol	#	.153	.194	27.1	#

Samples
SBLK2
CBF72
CBF72MS
CBF72MSD

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Instrument ID: 700202 Calibration Date: 1/10/90 Time: 12:29

Lab File ID: YA235 Init. Calib. Date(s): 1/ 4/90 1/ 4/90

Min RRF50 for SPCC(#) = .050 Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Dibenzofuran		1.796	1.781	.8	
2,4-Dinitrotoluene		.465	.495	6.3	
Diethylphthalate		1.687	1.826	8.2	
4-Chlorophenyl-phenylether		.564	.540	4.3	
Fluorene		1.328	1.334	.5	
4-Nitroaniline		.285	.341	19.6	
4,6-Dinitro-2-methylphenol		.105	.120	14.3	
N-Nitrosodiphenylamine	*	.613	.671	9.4	*
4-Bromophenyl-phenylether		.251	.267	6.1	
Hexachlorobenzene		.295	.306	3.9	
Pentachlorophenol	*	.113	.089	21.2	*
Phenanthrene		1.228	1.195	2.7	
Anthracene		1.159	1.191	2.8	
Di-n-butylphthalate		1.636	1.435	12.3	
Fluoranthene	*	1.034	.865	16.3	*
Pyrene		2.223	3.125	40.6	
Butylbenzylphthalate		1.115	1.130	1.3	
3,3'-Dichlorobenzidine		.395	.374	5.3	
Benzo(a)anthracene		1.192	1.199	.6	
Chrysene		1.283	1.217	5.1	
bis(2-Ethylhexyl)phthalate		1.516	1.129	25.5	
Di-n-octylphthalate	*	3.360	3.013	10.3	*
Benzo(b)fluoranthene		1.115	1.190	6.7	
Benzo(k)fluoranthene		1.723	2.001	16.1	
Benzo(a)pyrene	*	1.207	1.187	1.7	*
Indeno(1,2,3-cd)pyrene		1.090	1.004	7.9	
Dibenzo(a,h)anthracene		.799	.700	12.4	
Benzo(g,h,i)perylene		1.183	.935	21.0	
Nitrobenzene-d5		.483	.469	3.0	
2-Fluorobiphenyl		1.574	1.516	3.7	
Terphenyl-d14		1.596	1.981	24.1	
Phenol-d5		1.572	1.745	11.0	
2-Fluorophenol		1.333	1.353	1.5	
2,4,6-Tribromophenol		.114	.132	16.0	

(1) Cannot be separated from Diphenylamine

7E

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Instrument ID: 700202 Calibration Date: 1/11/90 Time: 14:37

Lab File ID: YA248 Init. Calib. Date(s): 1/ 4/90 1/ 4/90

Min RRF50 for SPCC(#) = .050 Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Phenol	*	1.653	2.035	23.1	*
bis(2-Chloroethyl)ether		1.605	1.766	10.1	
2-Chlorophenol		1.432	1.599	11.6	
1,3-Dichlorobenzene		1.659	1.709	3.0	
1,4-Dichlorobenzene	*	1.684	1.739	3.3	*
Benzyl alcohol		.799	.825	3.3	
1,2-Dichlorobenzene		1.533	1.618	5.6	
2-Methylphenol		1.149	1.245	8.3	
bis(2-Chloroisopropyl)ether		2.211	2.340	5.8	
4-Methylphenol		1.079	1.185	9.8	
N-Nitroso-di-n-propylamine	#	1.212	1.330	9.7	#
Hexachloroethane		.734	.774	5.4	
Nitrobenzene		.492	.522	6.2	
Isophorone		.861	.897	4.3	
2-Nitrophenol	*	.207	.214	3.4	*
2,4-Dimethylphenol		.427	.431	.8	
Benzoic acid		.087	.083	5.1	
bis(2-Chloroethoxy)methane		.542	.559	3.1	
2,4-Dichlorophenol	*	.307	.313	2.0	*
1,2,4-Trichlorobenzene		.364	.356	2.2	
Naphthalene		1.074	1.155	7.5	
4-Chloroaniline		.459	.457	.5	
Hexachlorobutadiene	*	.210	.206	2.1	*
4-Chloro-3-methylphenol	*	.330	.329	.4	*
2-Methylnaphthalene		.635	.608	4.4	
Hexachlorocyclopentadiene	#	.422	.444	5.3	#
2,4,6-Trichlorophenol	*	.428	.422	1.2	*
2,4,5-Trichlorophenol		.398	.444	11.6	
2-Chloronaphthalene		1.400	1.488	6.3	
2-Nitroaniline		.541	.591	9.3	
Dimethylphthalate		1.609	1.573	2.2	
Acenaphthylene		2.078	2.102	1.2	
2,6-Dinitrotoluene		.353	.343	2.9	
3-Nitroaniline		.344	.361	5.1	
Acenaphthene	*	1.320	1.346	2.0	*
2,4-Dinitrophenol	#	.079	.072	9.4	#
4-Nitrophenol	#	.153	.177	15.5	#

Samples
CBF78
CBF74

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Instrument ID: 700202 Calibration Date: 1/11/90 Time: 14:37

Lab File ID: YA248 Init. Calib. Date(s): 1/ 4/90 1/ 4/90

Min RRF50 for SPCC(#) = .050 Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Dibenzofuran		1.796	1.729	3.7	
2,4-Dinitrotoluene		.465	.473	1.7	
Diethylphthalate		1.687	1.597	5.3	
4-Chlorophenyl-phenylether		.564	.504	10.6	
Fluorene		1.328	1.259	5.2	
4-Nitroaniline		.285	.312	9.5	
4,6-Dinitro-2-methylphenol		.105	.113	7.6	
N-Nitrosodiphenylamine	*	.613	.670	9.3	*
4-Bromophenyl-phenylether		.251	.248	1.4	
Hexachlorobenzene		.295	.288	2.3	
Pentachlorophenol	*	.113	.086	23.8	*
Phenanthrene		1.228	1.186	3.5	
Anthracene		1.159	1.200	3.5	
Di-n-butylphthalate		1.636	1.525	6.8	
Fluoranthene	*	1.034	.967	6.5	*
Pyrene		2.223	1.986	10.6	
Butylbenzylphthalate		1.115	.988	11.5	
3,3'-Dichlorobenzidine		.395	.420	6.5	
Benzo(a)anthracene		1.192	1.169	1.9	
Chrysene		1.283	1.218	5.0	
bis(2-Ethylhexyl)phthalate		1.516	1.236	18.5	
Di-n-octylphthalate	*	3.360	2.746	18.3	*
Benzo(b)fluoranthene		1.115	1.060	4.9	
Benzo(k)fluoranthene		1.723	1.525	11.5	
Benzo(a)pyrene	*	1.207	1.114	7.7	*
Indeno(1,2,3-cd)pyrene		1.090	1.023	6.2	
Dibenzo(a,h)anthracene		.799	.659	17.6	
Benzo(g,h,i)perylene		1.183	.922	22.0	
Nitrobenzene-d5		.483	.509	5.2	
2-Fluorobiphenyl		1.574	1.655	5.1	
Terphenyl-d14		1.596	1.400	12.3	
Phenol-d5		1.572	1.800	14.5	
2-Fluorophenol		1.333	1.433	7.5	
2,4,6-Tribromophenol		.114	.130	14.5	

(1) Cannot be separated from Diphenylamine

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: RECMO Contract: 68W80051

Lab Code: RECMO Case No.: 13413 SAS No.: SDG No.: C8F72

Instrument ID: 700404 Calibration Date(s): 1/ 5/90 1/ 5/90

Min $\overline{RRF}$ for SPCC(#) = .050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF020= QA555 RRF050= QA556
RRF080= QA557 RRF120= QA558 RRF160= QA564

COMPOUND	RRF020	RRF050	RRF080	RRF120	RRF150	$\overline{RRF}$	% RSD
Phenol *	1.667	1.384	1.255	1.066	1.130	1.300	18.3*
bis(2-Chloroethyl)ether	1.383	1.305	1.208	1.155	1.255	1.261	7.0
2-Chlorophenol	1.425	1.345	1.255	1.133	1.211	1.274	9.0
1,3-Dichlorobenzene	1.832	1.693	1.557	1.484	1.447	1.603	9.9
1,4-Dichlorobenzene *	1.850	1.702	1.574	1.463	1.430	1.604	10.8*
Benzyl alcohol	.733	.699	.679	.608	.704	.684	6.8
1,2-Dichlorobenzene	1.728	1.604	1.464	1.398	1.385	1.517	9.5
2-Methylphenol	1.147	.975	.972	.830	.895	.964	12.3
bis(2-Chloroisopropyl)ether	2.127	1.912	1.955	1.816	1.858	1.933	6.2
4-Methylphenol	1.141	.957	.957	.822	.914	.958	12.1
N-Nitroso-di-n-propylamine #	.870	.763	.908	.719	.800	.793	7.0#
Hexachloroethane	.644	.615	.550	.541	.532	.577	8.6
Nitrobenzene	.365	.354	.333	.336	.323	.342	4.9
Isophorone	.751	.658	.651	.651	.674	.677	6.3
2-Nitrophenol *	.234	.240	.245	.245	.229	.239	3.1*
2,4-Dimethylphenol	.365	.336	.324	.319	.307	.330	6.6
Benzoic acid		.132	.168	.161	.179	.160	12.7
bis(2-Chloroethoxy)methane	.508	.476	.447	.456	.440	.466	5.9
2,4-Dichlorophenol *	.379	.335	.341	.338	.310	.341	7.3*
1,2,4-Trichlorobenzene	.436	.393	.378	.375	.335	.384	9.7
Naphthalene	1.213	1.072	.989	.982	.922	1.036	10.9
4-Chloroaniline	.482	.418	.426	.413	.395	.427	7.7
Hexachlorobutadiene *	.201	.186	.181	.188	.160	.193	8.2*
4-Chloro-3-methylphenol *	.297	.253	.266	.261	.252	.265	6.9*
2-Methylnaphthalene	.768	.633	.620	.607	.552	.638	12.1
Hexachlorocyclopentadiene #	.368	.455	.398	.409	.416	.409	7.7#
2,4,6-Trichlorophenol *	.438	.428	.417	.443	.440	.433	2.5*
2,4,5-Trichlorophenol		.396	.403	.399	.400	.400	.7
2-Chloronaphthalene	1.466	1.443	1.305	1.324	1.314	1.370	5.7
2-Nitroaniline		.313	.331	.335	.364	.336	6.3
Dimethylphthalate	1.554	1.425	1.438	1.463	1.379	1.452	4.5
Acenaphthylene	2.220	2.134	1.982	1.979	1.940	2.051	5.9
2,6-Dinitrotoluene	.324	.315	.342	.337	.329	.330	3.2
3-Nitroaniline		.341	.393	.379	.401	.378	7.0
Acenaphthene *	1.421	1.338	1.264	1.244	1.230	1.300	6.1*
2,4-Dinitrophenol #		.105	.156	.151			
4-Nitrophenol #		.079	.094	.095	.105	.093	11.4#

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: RECMD Contract: 68W80051

Lab Code: ~~FEBMD~~ Case No.: 13413 SAS No.: SDG No.: C8F72

Instrument ID: 700404 Calibration Date(s): 1/ 5/90 1/ 5/90

Min $\overline{RRF}$ for SPCC(#) = .050 Max %RSD for CCC(+) = 30.0%

LAB FILE ID: RRF020= QA558 RRF050= QA565
RRF080= QA567 RRF120= QA566 RRF160= QA564

COMPOUND	RRF020	RRF050	RRF080	RRF120	RRF160	$\overline{RRF}$	% RSD
Dibenzofuran	1.837	1.727	1.745	1.685	1.775	1.754	3.3
2,4-Dinitrotoluene	.371	.372	.471	.467	.465	.429	12.3
Diethylphthalate	1.517	1.380	1.465	1.479	1.375	1.443	4.4
4-Chlorophenyl-phenylether	.536	.497	.510	.497	.468	.501	5.0
Fluorene	1.330	1.284	1.222	1.203	1.164	1.253	7.0
4-Nitroaniline		.305	.386	.392	.398	.370	11.9
4,6-Dinitro-2-methylphenol		.109	.145	.149	.161	.141	15.6
N-Nitrosodiphenylamine *	.555	.619	.599	.612	.613	.622	4.2*
4-Bromophenyl-phenylether	.211	.199	.206	.212	.199	.205	3.1
Hexachlorobenzene	.252	.223	.225	.243	.224	.233	5.6
Pentachlorophenol *		.067	.090	.100	.110	.092	20.0*
Phenanthrene	1.306	1.256	1.205	1.229	1.171	1.233	4.2
Anthracene	1.229	1.187	1.165	1.206	1.142	1.186	2.8
Di-n-butylphthalate	1.691	1.649	1.602	1.681	1.593	1.643	2.7
Fluoranthene *	1.060	1.080	1.117	1.191	1.039	1.097	5.4*
Pyrene	2.234	1.905	1.927	1.801	1.870	1.947	8.6
Butylbenzylphthalate	1.179	1.062	1.090	1.059	1.056	1.089	4.8
3,3'-Dichlorobenzidine	.414	.430	.446	.443	.455	.438	3.7
Benzo(a)anthracene	1.436	1.304	1.329	1.286	1.271	1.325	5.0
Chrysene	1.245	1.140	1.193	1.177	1.235	1.198	3.6
bis(2-Ethylhexyl)phthalate	1.579	1.455	1.452	1.454	1.466	1.481	3.7
Di-n-octylphthalate *	3.158	2.950	2.927	2.983	2.954	2.994	3.1*
Benzo(b)fluoranthene	1.549	1.383	1.517	1.454	1.479	1.496	6.6
Benzo(k)fluoranthene	1.158	1.285	1.187	1.295	1.180	1.221	5.2
Benzo(a)pyrene *	1.156	1.182	1.231	1.224	1.211	1.209	1.7*
Indeno(1,2,3-cd)pyrene	1.191	1.247	1.271	1.288	1.308	1.259	3.9
Dibenzo(a,h)anthracene	.983	.947	.953	.999	1.005	.957	5.1
Benzo(g,h,i)perylene	.991	1.069	1.071	1.093	1.082	1.061	3.8
Nitrobenzene-d5	.343	.344	.325	.330	.332	.335	2.5
2-Fluorobiphenyl	1.624	1.630	1.454	1.457	1.435	1.520	6.4
Terphenyl-d14	1.378	1.202	1.200	1.177	1.155	1.223	7.3
Phenol-d5	1.496	1.318	1.238	1.089	1.138	1.256	12.8
2-Fluorophenol	1.239	1.164	1.047	.993	.990	1.087	10.2
2,4,6-Tribromophenol	.095	.089	.094	.100	.096	.093	6.3

(1) Cannot be separated from Diphenylamine

Lab Name: RECMD. Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Instrument ID: 702404 Calibration Date: 1/10/90 Time: 12:01

Lab File ID: QA577 Init. Calib. Date(s): 1/ 5/90 1/ 5/90

Min RRFS0 for SPCC(*) = .050 Max %D for CCC(*) = 25.0%

COMPOUND	RRF	RRFS0	%D
Phenol *	1.300	1.538	22.9 *
bis(2-Chloroethyl)ether	1.251	1.587	25.9
2-Chlorophenol	1.274	1.403	10.1
1,3-Dichlorobenzene	1.603	1.687	5.2
1,4-Dichlorobenzene *	1.604	1.650	2.9 *
Benzyl alcohol	.634	.831	21.5
1,2-Dichlorobenzene	1.517	1.587	4.6
2-Methylphenol	.964	1.133	17.5
bis(2-Chloroisopropyl)ether	1.833	2.547	31.7
4-Methylphenol	.958	1.129	17.8
N-Nitroso-di-n-propylamine #	.793	1.087	37.0 #
Hexachloroethane	.577	.674	16.9
Nitrobenzene	.342	.420	22.8
Isophorone	.677	.789	16.6
2-Nitrophenol *	.239	.241	.9 *
2,4-Dimethylphenol	.330	.340	2.9
Benzoic acid	.160	.170	6.1
bis(2-Chloroethoxy)methane	.466	.524	12.5
2,4-Dichlorophenol *	.341	.325	4.9 *
1,2,4-Trichlorobenzene	.384	.355	7.5
Naphthalene	1.036	1.018	1.7
4-Chloroaniline	.427	.428	.2
Hexachlorobutadiene *	.183	.169	7.9 *
4-Chloro-3-methylphenol *	.265	.278	4.9 *
2-Methylnaphthalene	.636	.619	2.9
Hexachlorocyclopentadiene #	.409	.438	7.0 #
2,4,6-Trichlorophenol *	.433	.454	4.9 *
2,4,5-Trichlorophenol	.400	.433	8.3
2-Chloronaphthalene	1.370	1.377	.5
2-Nitroaniline	.336	.448	33.4
Dimethylphthalate	1.452	1.497	3.1
Acenaphthylene	2.051	2.141	4.4
2,6-Dinitrotoluene	.330	.360	9.3
3-Nitroaniline	.376	.428	13.2
Acenaphthene *	1.300	1.315	1.2 *
2,4-Dinitrophenol #	.146	.187	27.8 #
4-Nitrophenol #	.093	.116	24.6 #

Samples
SBLK3
CBF76
CBF76MS
CBF76MSD
CBF73
CBF75
CBF77

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: RECMO Contract: 68W80051

Lab Code: RECMO Case No.: 13413 SAS No.: SDG No.: C8F72

Instrument ID: 700404 Calibration Date: 1/10/90 Time: 12:01

Lab File ID: GA577 Init. Calib. Date(s): 1/ 5/90 1/ 5/90

Min RRFS0 for SPCC(#) = .050 Max %D for CCC(*) = 25.0%

COMPOUND	RRF	RRFS0	%D	
Dibenzofuran	1.754	1.924	9.7	
2,4-Dinitrotoluene	.429	.494	15.0	
Diethylphthalate	1.443	1.540	6.7	
4-Chlorophenyl-phenylether	.501	.527	5.2	
Fluorene	1.253	1.362	8.7	
4-Nitroaniline	.370	.413	11.6	
4,6-Dinitro-2-methylphenol	.141	.161	14.1	
N-Nitrosodiphenylamine(1)	.622	.624	.3	*
4-Bromophenyl-phenylether	.205	.210	2.2	
Hexachlorobenzene	.233	.231	.9	
Pentachlorophenol	.092	.094	2.9	*
Phenanthrene	1.233	1.257	1.9	
Anthracene	1.186	1.138	4.0	
Di-n-butylphthalate	1.643	1.659	.9	
Fluoranthene	1.097	1.064	3.0	*
Pyrene	1.947	1.998	2.1	
Butylbenzylphthalate	1.089	1.113	2.2	
3,3'-Dichlorobenzidine	.438	.458	4.6	
Benzo(a)anthracene	1.326	1.369	3.3	
Chrysene	1.198	1.254	4.6	
bis(2-Ethylhexyl)phthalate	1.481	1.534	3.6	
Di-n-octylphthalate	2.994	2.792	6.8	*
Benzo(b)fluoranthene	1.496	1.431	4.4	
Benzo(k)fluoranthene	1.221	1.173	3.9	
Benzo(a)pyrene	1.209	1.181	2.3	*
Indeno(1,2,3-cd)pyrene	1.259	1.173	6.8	
Dibenzo(a,h)anthracene	.957	.900	6.0	
Benzo(g,h,i)perylene	1.061	.970	8.6	
Nitrobenzene-d5	.335	.402	20.0	
2-Fluorobiphenyl	1.520	1.564	2.9	
Terphenyl-d14	1.223	1.211	.9	
Phenol-d5	1.256	1.584	26.1	
2-Fluorophenol	1.087	1.335	22.8	
2,4,6-Tribromophenol	.093	.095	2.7	

(1) Cannot be separated from Diphenylamine

2B
SOIL VOLATILE SURROGATE RECOVERY

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Level:(low/med) MED

	EPA SAMPLE NO.	S1 (TOL) #	S2 (BFB) #	S3 (DCE) #	OTHER	TOT OUT
1	VBLKS1	100	100	96		0
2	CBF72	101	102	102		0
3	CBF73	100	100	105		0
4	CBF74	100	105	110		0
5	CBF72MS	100	105	105		0
6	CBF72MSD	99	105	107		0
7	CBF75	100	102	111		0
8	VBLKS2	100	102	99		0
9	CBF78	91	137 *	97		1
10	CBF76	104	156 *	111		1
11	CBF77	91	131 *	98		1
12	CBF78 RE	87	129 *	95		1
13	CBF76 RE	96	152 *	106		1
14	CBF77 RE	92	139 *	101		1
15						
16						
17						
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29						
30						

		QC LIMITS
S1 (TOL)	= Toluene d-8	(81-117)
S2 (BFB)	= Bromofluorobenzene	(74-121)
S3 (DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC

D Surrogates diluted out

FORM II VOA-2 AR301228 1/87 Rev.

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix Spike - EPA Sample No.: CBF72 Level:(low/med) MED

COMPOUND	SPIKE ADDED (UG/KG)	SAMPLE CONCENTRATION (UG/KG)	MS CONCENTRATION (UG/KG)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	8681.	0.	11489.	132	59-172
Trichloroethene	8681.	0.	11166.	129	62-137
Benzene	8681.	5801.	17841.	139	66-142
Toluene	8681.	225.	11154.	126	59-139
Chlorobenzene	8681.	28769.	42422.	157 *	60-133

COMPOUND	SPIKE ADDED (UG/KG)	MSD CONCENTRATION (UG/KG)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	8681.	11942.	138	4	22	59-172
Trichloroethene	8681.	11083.	128	1	24	62-137
Benzene	8681.	17984.	140	1	21	66-142
Toluene	8681.	11194.	126	0	21	59-139
Chlorobenzene	8681.	42551.	159 *	1	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: 2 out of 10 outside limits

COMMENTS:

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: C8F72

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
1	S8LK2	62	66	50	61	65	86		0
2	C8F72	65	67	55	58	62	92		0
3	C8F72MS	68	70	189 *	53	63	94		1
4	C8F72MSD	71	73	57	65	70	99		0
5	C8F73	65	74	73	65	67	106		0
6	C8F74	77	63	76	63	72	107		0
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30									

	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)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

AR301230

2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: RECMO Contract: 68W80051

Lab Code: RECMO Case No.: 13413 SAS No.: SDG No.: C8F72

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
1	C8F73	66	69	493 *	62	56	114		1
2	C8F75	57	64	59	61	50	110		0
3	C8F77	65	68	171 *	65	55	106		1
4									
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		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-

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

3D
SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix Spike - EPA Sample No.: CBF72 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (UG/KG)	SAMPLE CONCENTRATION (UG/KG)	MS CONCENTRATION (UG/KG)	MS % REC #	QC LIMITS REC.
Phenol	9259.	0.	5659.	61	26- 90
2-Chlorophenol	9259.	0.	5358.	58	25-102
1,4-Dichlorobenzene	4630.	1343.	2624.	28	28-104
N-Nitroso-di-n-prop.(1)	4630.	0.	2774.	60	41-126
1,2,4-Trichlorobenzene	4630.	0.	2473.	53	38-107
4-Chloro-3-methylphenol	9259.	0.	7646.	83	26-103
Acenaphthene	4630.	0.	3126.	68	31-137
4-Nitrophenol	9259.	0.	7908.	85	11-114
2,4-Dinitrotoluene	4630.	0.	3345.	72	28- 89
Pentachlorophenol	9259.	0.	9982.	108	17-109
Pyrene	4630.	0.	3936.	85	35-142

COMPOUND	SPIKE ADDED (UG/KG)	MSD CONCENTRATION (UG/KG)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	9259.	6103.	66	8	35	26- 90
2-Chlorophenol	9259.	5739.	62	7	50	25-102
1,4-Dichlorobenzene	4630.	2742.	30	9	27	28-104
N-Nitroso-di-n-prop.(1)	4630.	3050.	66	9	38	41-126
1,2,4-Trichlorobenzene	4630.	2599.	56	5	23	38-107
4-Chloro-3-methylphenol	9259.	7924.	86	4	33	26-103
Acenaphthene	4630.	3215.	69	3	19	31-137
4-Nitrophenol	9259.	8538.	92	8	50	11-114
2,4-Dinitrotoluene	4630.	3654.	79	9	47	28- 89
Pentachlorophenol	9259.	11338.	122 *	13	47	17-109
Pyrene	4630.	3857.	83	2	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: 0 out of 11 outside limits
Spike Recovery: 1 out of 22 outside limits

COMMENTS:

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: RECMD Contract: 68W8005

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix Spike - EPA Sample No.: CBF76 Level:(low/med) MED

COMPOUND	SPIKE ADDED (UG/KG)	SAMPLE CONCENTRATION (UG/KG)	MS CONCENTRATION (UG/KG)	MS % REC #	QC LIMITS REC.
Phenol	259740.	0.	212496.	82	26- 90
2-Chlorophenol	259740.	0.	172029.	66	25-102
1,4-Dichlorobenzene	129870.	206250.	544089.	260 *	28-104
N-Nitroso-di-n-prop.(1)	129870.	0.	134558.	104	41-126
1,2,4-Trichlorobenzene	129870.	314696.	1158136.	649 *	38-107
4-Chloro-3-methylphenol	259740.	0.	219197.	84	26-103
Acenaphthene	129870.	0.	121166.	93	31-137
4-Nitrophenol	259740.	0.	117859.	45	11-114
2,4-Dinitrotoluene	129870.	0.	93638.	72	28- 89
Pentachlorophenol	259740.	0.	59959.	23	17-109
Pyrene	129870.	0.	147155.	113	35-142

COMPOUND	SPIKE ADDED (UG/KG)	MSD CONCENTRATION (UG/KG)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	259740.	153165.	59	32	35	26- 90
2-Chlorophenol	259740.	101457.	39	57 *	50	25-102
1,4-Dichlorobenzene	129870.	293222.	67	118 *	27	28-104
N-Nitroso-di-n-prop.(1)	129870.	89518.	69	40 *	38	41-126
1,2,4-Trichlorobenzene	129870.	784195.	362 *	57 *	23	38-107
4-Chloro-3-methylphenol	259740.	200369.	77	9	33	26-103
Acenaphthene	129870.	118480.	91	2	19	31-137
4-Nitrophenol	259740.	108161.	42	9	50	11-114
2,4-Dinitrotoluene	129870.	84647.	65	10	47	28- 89
Pentachlorophenol	259740.	84491.	33	34	47	17-109
Pyrene	129870.	146677.	113	0	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: 4 out of 11 outside limits
Spike Recovery: 3 out of 22 outside limits

COMMENTS:

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix Spike - EPA Sample No.: CBF72 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (UG/KG)	SAMPLE CONCENTRATION (UG/KG)	MS CONCENTRATION (UG/KG)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	65.04	.00	51.31	79	46-127
Heptachlor	65.04	.00	48.10	74	35-130
Aldrin	65.04	.00	56.23	86	34-132
Dieldrin	162.60	.00	113.52	70	31-134
Endrin	162.60	.00	180.00	111	42-139
4,4'-DDT	162.60	.00	140.90	87	23-134

COMPOUND	SPIKE ADDED (UG/KG)	MSD CONCENTRATION (UG/KG)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	65.04	69.01	106	29	50	46-127
Heptachlor	65.04	69.66	107	37 *	31	35-130
Aldrin	65.04	77.33	119	32	43	34-132
Dieldrin	162.60	167.35	103	38 *	38	31-134
Endrin	162.60	284.72	175 *	45 *	45	42-139
4,4'-DDT	162.60	195.70	120	33	50	23-134

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

Values outside of QC limits

PD: 3 out of 6 outside limits
pike Recovery: 1 out of 12 outside limits

OMMENTS:

8D
PESTICIDE EVALUATION STANDARDS SUMMARY

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Instrument ID: HP 2 GC Column ID: 22502401

Dates of Analyses: 1/10/90 to 1/11/90

Evaluation Check for Linearity

PESTICIDE	CALIBRATION FACTOR EVAL MIX A	CALIBRATION FACTOR EVAL MIX B	CALIBRATION FACTOR EVAL MIX C	%RSD (</= 10.0%)	
Aldrin	85431.	89531.	87635.	1.8	
Endrin	58595.	60327.	59509.	1.1	
4,4'-DDT	39768.	45130.	49408.	15.3	(1)
DBC	74488.	66416.	61462.	13.6	

(1) If > 10.0% RSD, plot a standard curve and determine the ng for each sample in that set from the curve.

Evaluation Check for 4,4'-DDT/Endrin Breakdown
(percent breakdown expressed as total degradation)

		DATE ANALYZED	TIME ANALYZED	ENDRIN	4,4'-DDT	COMBINED (2)
1	INITIAL EVAL MIX B	1/10/90	17:13	.00	.00	
2	EVAL MIX B	1/11/90	11:02	.00	6.86	
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						

(2) See Form instructions.

PESTICIDE/PCB STANDARDS SUMMARY

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Instrument ID: HP 2 GC Column ID: SPB608

DATE(S) OF ANALYSIS	FROM:	1/10/90	DATE OF ANALYSIS	1/10/90
	TO:	1/10/90	TIME OF ANALYSIS	22:01
TIME(S) OF ANALYSIS	FROM:	11:20	EPA SAMPLE NO. (STANDARD)	INDA
	TO:	15:54		

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC	6.21	6.16	6.26	219417.			Y	
beta-BHC	7.58	7.52	7.64	124443.			Y	
delta-BHC	8.62	8.56	8.68	203821.			Y	
gamma-BHC (Li	7.30	7.20	7.40	256383.	7.31	242883.	Y	5.3
Heptachlor	8.40	8.28	8.52	251912.	8.41	205312.	Y	18.5
Aldrin	9.40	9.30	9.50	257962.	9.42	258096.	Y	.1
Hept. Epoxide	11.20	11.04	11.36	245958.	11.21	230150.	Y	6.4
Endosulfan I	12.38	12.20	12.56	229585.	12.40	218300.	Y	4.9
Dieldrin	13.40	13.20	13.60	240637.	13.41	221812.	Y	7.8
4,4'-DDE	13.15	13.05	13.25	192350.			Y	
Endrin	14.53	14.42	14.64	113350.			Y	
Endosulfan II	15.23	15.12	15.34	219278.	15.24	215191.	Y	1.9
4,4'-DDD	15.05	14.94	15.16	134514.			Y	
Endo. sulfate	16.82	16.69	16.95	161367.			Y	
4,4'-DDT	16.11	15.99	16.23	153637.	16.12	149842.	Y	2.5
Methoxychlor	18.98	18.84	19.12	64466.	19.00	71405.	Y	10.8
Endrin ketone	19.21	19.07	19.35	202191.			Y	
a. Chlordane	12.32	12.23	12.41	228508.			Y	
g. Chlordane	11.80	11.71	11.89	214350.			Y	
Toxaphene	15.37	15.25	15.49	34355.			Y	
Aroclor-1016	8.32	8.20	8.44	36185.			Y	
Aroclor-1221	5.99	5.91	6.07	9311.			Y	
Aroclor-1232	8.31	8.19	8.43	19766.			Y	
Aroclor-1242	8.31	8.19	8.43	29807.			Y	
Aroclor-1248	12.29	12.11	12.47	32546.			Y	
Aroclor-1254	13.62	13.42	13.82	47261.			Y	
Aroclor-1260	14.68	14.46	14.90	46113.			Y	

Under QNT Y/N: enter Y if quantitation was performed, N if not performed.
%D must be less than or equal to 15.0% for quantitation, and less than or equal to 20.0% for confirmation.

Note: Determining that no compounds were found above the CRQL is a form of quantitation, and therefore at least one column must meet the 15.0% criteria.

For multicomponent analytes, the largest single peak tha[illegible]tic of the component should be used to establish retention time and %D. Identification of such analytes is based primarily on pattern recognition.

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PESTICIDE/PCB STANDARDS SUMMARY

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Instrument ID: HP 2 GC Column ID: SPB608

	DATE(S) OF ANALYSIS	FROM:	1/10/90		DATE OF ANALYSIS		1/11/90	
		TO:	1/10/90		TIME OF ANALYSIS		8:40	
	TIME(S) OF ANALYSIS	FROM:	11:20		EPA SAMPLE NO. (STANDARD)		INDB	
		TO:	15:54					
COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC	6.21	6.16	6.26	219417.	6.29	221600.	Y	1.0
beta-BHC	7.58	7.52	7.64	124443.	7.66	118436.	Y	4.8
delta-BHC	8.62	8.56	8.68	203821.	8.07	215500.	Y	5.7
gamma-BHC (Li	7.30	7.20	7.40	256383.			Y	
Heptachlor	8.40	8.28	8.52	251912.			Y	
Aldrin	9.40	9.30	9.50	257962.	9.50	229644.	Y	11.0
Hept. Epoxide	11.20	11.04	11.36	245958.			Y	
Endosulfan I	12.38	12.20	12.56	229585.			Y	
Dieldrin	13.40	13.20	13.60	240637.			Y	
4,4'-DDE	13.15	13.05	13.25	192350.	13.24	194180.	Y	1.0
Endrin	14.53	14.42	14.64	113350.	14.64	155847.	Y	37.5
Endosulfan II	15.23	15.12	15.34	219278.			Y	
4,4'-DDD	15.05	14.94	15.16	134514.	15.15	137050.	Y	1.9
Endo. sulfate	16.82	16.69	16.95	161367.	16.93	161580.	Y	.1
4,4'-DDT	16.11	15.99	16.23	153637.			Y	
Methoxychlor	18.98	18.84	19.12	64466.			Y	
Endrin ketone	19.21	19.07	19.35	202191.	19.32	197187.	Y	2.5
a. Chlordane	12.32	12.23	12.41	228508.	12.42	214750.	Y	6.0
g. Chlordane	11.80	11.71	11.89	214350.	11.91	200592.	Y	6.4
Toxaphene	15.37	15.25	15.49	34355.			Y	
Aroclor-1016	8.32	8.20	8.44	36185.			Y	
Aroclor-1221	5.99	5.91	6.07	9311.			Y	
Aroclor-1232	8.31	8.19	8.43	19766.			Y	
Aroclor-1242	8.31	8.19	8.43	29807.			Y	
Aroclor-1248	12.29	12.11	12.47	32546.			Y	
Aroclor-1254	13.62	13.42	13.82	47261.			Y	
Aroclor-1260	14.68	14.46	14.90	46113.			Y	

Under QNT Y/N: enter Y if quantitation was performed, N if not performed. %D must be less than or equal to 15.0% for quantitation, and less than or equal to 20.0% for confirmation.

Note: Determining that no compounds were found above the CRQL is a form of quantitation, and therefore at least one column must meet the 15.0% criteria.

For multicomponent analytes, the largest single peak that is characteristic of the component should be used to establish retention time and %D. Identification of such analytes is based primarily on pattern recognition.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF72MS

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0001

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA415

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 28. Date Analyzed: 1/ 9/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1700.	U
74-83-9	Bromomethane	1700.	U
75-01-4	Vinyl Chloride	1700.	U
75-00-3	Chloroethane	1700.	U
75-09-2	Methylene Chloride	810.	BJ
67-64-1	Acetone	2400.	B
75-15-0	Carbon Disulfide	870.	U
75-35-4	1,1-Dichloroethene		
75-34-3	1,1-Dichloroethane	870.	U
540-59-0	1,2-Dichloroethene (total)	460.	J
67-66-3	Chloroform	870.	U
107-06-2	1,2-Dichloroethane	870.	U
78-93-3	2-Butanone	1700.	U
71-55-6	1,1,1-Trichloroethane	870.	U
56-23-5	Carbon Tetrachloride	870.	U
108-05-4	Vinyl Acetate	1700.	U
75-27-4	Bromodichloromethane	870.	U
78-87-5	1,2-Dichloropropane	870.	U
10061-01-5	cis-1,3-Dichloropropene	870.	U
79-01-6	Trichloroethene		
124-48-1	Dibromochloromethane	870.	U
79-00-5	1,1,2-Trichloroethane	870.	U
71-43-2	Benzene		
10061-02-6	trans-1,3-Dichloropropene	870.	U
75-25-2	Bromoform	870.	U
108-10-1	4-Methyl-2-Pentanone	1700.	U
591-78-6	2-Hexanone	1700.	U
127-18-4	Tetrachloroethene	870.	U
79-34-5	1,1,2,2-Tetrachloroethane	870.	U
108-88-3	Toluene		
108-90-7	Chlorobenzene		
100-41-4	Ethylbenzene	870.	U
100-42-5	Styrene	870.	U
1330-20-7	Xylene (total)	650.	J

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF72MSD

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0001

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA416

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 28. Date Analyzed: 1/ 9/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1700.	U
74-83-9	Bromomethane	1700.	U
75-01-4	Vinyl Chloride	1700.	U
75-00-3	Chloroethane	1700.	U
75-09-2	Methylene Chloride	1100.	B
67-64-1	Acetone	5400.	B
75-15-0	Carbon Disulfide	870.	U
75-35-4	1,1-Dichloroethene		
75-34-3	1,1-Dichloroethane	870.	U
540-59-0	1,2-Dichloroethene (total)	510.	J
67-66-3	Chloroform	870.	U
107-06-2	1,2-Dichloroethane	870.	U
78-93-3	2-Butanone	1700.	U
71-55-6	1,1,1-Trichloroethane	870.	U
56-23-5	Carbon Tetrachloride	870.	U
108-05-4	Vinyl Acetate	1700.	U
75-27-4	Bromodichloromethane	870.	U
78-87-5	1,2-Dichloropropane	870.	U
10061-01-5	cis-1,3-Dichloropropene	870.	U
79-01-6	Trichloroethene		
124-48-1	Dibromochloromethane	870.	U
79-00-5	1,1,2-Trichloroethane	870.	U
71-43-2	Benzene		
10061-02-6	trans-1,3-Dichloropropene	870.	U
75-25-2	Bromoform	870.	U
108-10-1	4-Methyl-2-Pentanone	1700.	U
591-78-6	2-Hexanone	1700.	U
127-18-4	Tetrachloroethene	870.	U
79-34-5	1,1,2,2-Tetrachloroethane	870.	U
108-88-3	Toluene		
108-90-7	Chlorobenzene		
100-41-4	Ethylbenzene	870.	U
100-42-5	Styrene	870.	U
1330-20-7	Xylene (total)	640.	J

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF72MS

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0001MS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BA238

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 23. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) Y pH: 6.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol		
111-44-4	bis(2-Chloroethyl)ether	920.	U
95-57-8	2-Chlorophenol		
541-73-1	1,3-Dichlorobenzene	350.	J
106-46-7	1,4-Dichlorobenzene		
100-51-6	Benzyl alcohol	920.	U
95-50-1	1,2-Dichlorobenzene	920.	U
95-48-7	2-Methylphenol	920.	U
108-60-1	bis(2-Chloroisopropyl)ether	920.	U
106-44-5	4-Methylphenol	920.	U
621-64-7	N-Nitroso-di-n-propylamine		
67-72-1	Hexachloroethane	920.	U
98-95-3	Nitrobenzene	920.	U
78-59-1	Isophorone	920.	U
88-75-5	2-Nitrophenol	920.	U
105-67-9	2,4-Dimethylphenol	920.	U
65-85-0	Benzoic acid	4600.	U
111-91-1	bis(2-Chloroethoxy)methane	920.	U
120-83-2	2,4-Dichlorophenol	920.	U
120-82-1	1,2,4-Trichlorobenzene		
91-20-3	Naphthalene	920.	U
106-47-8	4-Chloroaniline	920.	U
87-68-3	Hexachlorobutadiene	920.	U
59-50-7	4-Chloro-3-methylphenol		
91-57-6	2-Methylnaphthalene	920.	U
77-47-4	Hexachlorocyclopentadiene	920.	U
88-06-2	2,4,6-Trichlorophenol	920.	U
95-95-4	2,4,5-Trichlorophenol	4600.	
91-58-7	2-Chloronaphthalene	920.	
88-74-4	2-Nitroaniline	4600.	U
131-11-3	Dimethylphthalate	920.	U
208-96-8	Acenaphthylene	920.	U
606-20-2	2,6-Dinitrotoluene	920.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C8F72MS

Lab Name: RECMO_ Contract: 68W80051

Lab Code: RECMO Case No.: 13413 SAS No.: SDG No.: C8F72

Matrix: (soil/water) SOIL Lab Sample ID: 8S0001MS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: SA238

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 23. dec.____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) Y pH: 6.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4600.	U
83-32-9	Acenaphthene		
51-28-5	2,4-Dinitrophenol	4600.	U
100-02-7	4-Nitrophenol		
132-64-9	Dibenzofuran	920.	U
121-14-2	2,4-Dinitrotoluene		
84-66-2	Diethylphthalate	920.	U
7005-72-3	4-Chlorophenyl-phenylether	920.	U
86-73-7	Fluorene	920.	U
100-01-6	4-Nitroaniline	4600.	U
534-52-1	4,6-Dinitro-2-methylphenol	4600.	U
86-30-6	N-Nitrosodiphenylamine	920.	U
101-55-3	4-Bromophenyl-phenylether	920.	U
118-74-1	Hexachlorobenzene	920.	U
87-86-5	Pentachlorophenol		
85-01-8	Phenanthrene	920.	U
120-12-7	Anthracene	920.	U
84-74-2	Di-n-butylphthalate	920.	U
206-44-0	Fluoranthene	920.	U
129-00-0	Pyrene		
85-68-7	Butylbenzylphthalate	920.	U
91-94-1	3,3'-Dichlorobenzidine	1800.	U
56-55-3	Benzo(a)anthracene	920.	U
218-01-9	Chrysene	920.	U
117-81-7	bis(2-Ethylhexyl)phthalate	920.	U
117-84-0	Di-n-octylphthalate	920.	U
205-99-2	Benzo(b)fluoranthene	920.	U
207-08-9	Benzo(k)fluoranthene	920.	
50-32-8	Benzo(a)pyrene	920.	
193-39-5	Indeno(1,2,3-cd)pyrene	920.	U
53-70-3	Dibenzo(a,h)anthracene	920.	U
191-24-2	Benzo(g,h,i)perylene	920.	U

(1) - Cannot be separated from diphenylamine

AR301241

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF72MSD

Lab Name: RECMD Contract: 68W60051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0001MSD

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BA239

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 23. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) Y pH: 6.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol		
111-44-4	bis(2-Chloroethyl)ether	920.	U
95-57-8	2-Chlorophenol		
541-73-1	1,3-Dichlorobenzene	330.	J
106-46-7	1,4-Dichlorobenzene		
100-51-6	Benzyl alcohol	920.	U
95-50-1	1,2-Dichlorobenzene	920.	U
95-48-7	2-Methylphenol	920.	U
108-60-1	bis(2-Chloroisopropyl)ether	920.	U
106-44-5	4-Methylphenol	920.	U
621-64-7	N-Nitroso-di-n-propylamine		
67-72-1	Hexachloroethane	920.	U
98-95-3	Nitrobenzene	920.	U
78-59-1	Isophorone	920.	U
88-75-5	2-Nitrophenol	920.	U
105-67-9	2,4-Dimethylphenol	920.	U
65-85-0	Benzoic acid	4600.	U
111-91-1	bis(2-Chloroethoxy)methane	920.	U
120-83-2	2,4-Dichlorophenol	920.	U
120-82-1	1,2,4-Trichlorobenzene		
91-20-3	Naphthalene	920.	U
106-47-8	4-Chloroaniline	920.	U
87-68-3	Hexachlorobutadiene	920.	U
59-50-7	4-Chloro-3-methylphenol		
91-57-6	2-Methylnaphthalene	920.	U
77-47-4	Hexachlorocyclopentadiene		
88-06-2	2,4,6-Trichlorophenol		
95-95-4	2,4,5-Trichlorophenol	4600.	U
91-58-7	2-Chloronaphthalene	920.	U
88-74-4	2-Nitroaniline	4600.	U
131-11-3	Dimethylphthalate	920.	U
208-96-8	Acenaphthylene	920.	U
606-20-2	2,6-Dinitrotoluene	920.	U

AR301242

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C8F72MSD

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: C8F72

Matrix: (soil/water) SOIL Lab Sample ID: BS0001MSD

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BA233

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 23. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) Y pH: 6.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4600.	U
83-32-9	Acenaphthene		
51-28-5	2,4-Dinitrophenol	4600.	U
100-02-7	4-Nitrophenol		
132-64-9	Dibenzofuran	920.	U
121-14-2	2,4-Dinitrotoluene		
84-66-2	Diethylphthalate	920.	U
7005-72-3	4-Chlorophenyl-phenylether	920.	U
86-73-7	Fluorene	920.	U
100-01-6	4-Nitroaniline	4600.	U
534-52-1	4,6-Dinitro-2-methylphenol	4600.	U
86-30-6	N-Nitrosodiphenylamine	920.	U
101-55-3	4-Bromophenyl-phenylether	920.	U
118-74-1	Hexachlorobenzene	920.	U
87-86-5	Pentachlorophenol		
85-01-8	Phenanthrene	920.	U
120-12-7	Anthracene	920.	U
84-74-2	Di-n-butylphthalate	920.	U
206-44-0	Fluoranthene	920.	U
129-00-0	Pyrene		
85-68-7	Butylbenzylphthalate	920.	U
91-94-1	3,3'-Dichlorobenzidine	1800.	U
56-55-3	Benzo(a)anthracene	920.	U
218-01-9	Chrysene	920.	U
117-81-7	bis(2-Ethylhexyl)phthalate	920.	U
117-84-0	Di-n-octylphthalate	920.	U
205-99-2	Benzo(b)fluoranthene		
207-08-9	Benzo(k)fluoranthene		
50-32-8	Benzo(a)pyrene	920.	U
193-39-5	Indeno(1,2,3-cd)pyrene	920.	U
53-70-3	Dibenzo(a,h)anthracene	920.	U
191-24-2	Benzo(g,h,i)perylene	920.	U

(1) - Cannot be separated from diphenylamine

AR301243

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF76MS

Lab Name: RECMD Contract: S8W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0005

Sample wt/vol: 1.000 (g/mL) G Lab File ID: DA580

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 23. dec._____ Date Extracted: 1/10/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol		
111-44-4	bis(2-Chloroethyl)ether	26000.	U
95-57-8	2-Chlorophenol		
541-73-1	1,3-Dichlorobenzene	330000.	
106-46-7	1,4-Dichlorobenzene		
100-51-6	Benzyl alcohol	26000.	U
95-50-1	1,2-Dichlorobenzene	110000.	
95-48-7	2-Methylphenol	26000.	U
108-60-1	bis(2-Chloroisopropyl)ether	26000.	U
106-44-5	4-Methylphenol	26000.	U
621-64-7	N-Nitroso-di-n-propylamine		
67-72-1	Hexachloroethane	26000.	U
98-95-3	Nitrobenzene	26000.	U
78-59-1	Isophorone	26000.	U
88-75-5	2-Nitrophenol	26000.	U
105-67-9	2,4-Dimethylphenol	26000.	U
65-85-0	Benzoic acid	130000.	U
111-91-1	bis(2-Chloroethoxy)methane	26000.	U
120-83-2	2,4-Dichlorophenol	26000.	U
120-82-1	1,2,4-Trichlorobenzene		
91-20-3	Naphthalene	26000.	U
106-47-8	4-Chloroaniline	26000.	U
87-68-3	Hexachlorobutadiene	26000.	U
59-50-7	4-Chloro-3-methylphenol		
91-57-6	2-Methylnaphthalene	26000.	U
77-47-4	Hexachlorocyclopentadiene	26000.	U
88-06-2	2,4,6-Trichlorophenol	26000.	U
95-95-4	2,4,5-Trichlorophenol		
91-58-7	2-Chloronaphthalene	[illegible]	[illegible]
88-74-4	2-Nitroaniline	130000.	U
131-11-3	Dimethylphthalate	26000.	U
208-96-8	Acenaphthylene	26000.	U
606-20-2	2,6-Dinitrotoluene	26000.	U

AR301244

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C8F76MS

Lab Name: RECMO Contract: 68W80051

Lab Code: RECMO Case No.: 13413 SAS No.: SDG No.: C8F72

Matrix: (soil/water) SOIL Lab Sample ID: BS0005

Sample wt/vol: 1.000 (g/mL) G Lab File ID: DAS30

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 22. dec._____ Date Extracted: 1/10/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	130000.	U
83-32-9	Acenaphthene		
51-28-5	2,4-Dinitrophenol	130000.	U
100-02-7	4-Nitrophenol		
132-64-9	Dibenzofuran	26000.	U
121-14-2	2,4-Dinitrotoluene		
84-66-2	Diethylphthalate	26000.	U
7005-72-3	4-Chlorophenyl-phenylether	26000.	U
86-73-7	Fluorene	26000.	U
100-01-6	4-Nitroaniline	130000.	U
534-52-1	4,6-Dinitro-2-methylphenol	130000.	U
86-30-6	N-Nitrosodiphenylamine	26000.	U
101-55-3	4-Bromophenyl-phenylether	26000.	U
118-74-1	Hexachlorobenzene	26000.	U
87-86-5	Pentachlorophenol		
85-01-8	Phenanthrene	26000.	U
120-12-7	Anthracene	26000.	U
84-74-2	Di-n-butylphthalate	26000.	U
206-44-0	Fluoranthene	26000.	U
129-00-0	Pyrene		
85-68-7	Butylbenzylphthalate	26000.	U
91-94-1	3,3'-Dichlorobenzidine	51000.	U
56-55-3	Benzo(a)anthracene	26000.	U
218-01-9	Chrysene	26000.	U
117-81-7	bis(2-Ethylhexyl)phthalate	26000.	U
117-84-0	Di-n-octylphthalate	26000.	U
205-99-2	Benzo(b)fluoranthene	26000.	U
207-08-9	Benzo(k)fluoranthene	[illegible]	[illegible]
50-32-8	Benzo(a)pyrene	[illegible]	
193-39-5	Indeno(1,2,3-cd)pyrene	[illegible]	U
53-70-3	Dibenzo(a,h)anthracene	26000.	U
191-24-2	Benzo(g,h,i)perylene	26000.	U

(1) - Cannot be separated from diphenylamine

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF76MSD

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0005

Sample wt/vol: 1.000 (g/mL) G Lab File ID: DA581

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 33. dec._____ Date Extracted: 1/10/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol		
111-44-4	bis(2-Chloroethyl)ether	26000.	U
95-57-8	2-Chlorophenol		
541-73-1	1,3-Dichlorobenzene	220000.	
106-46-7	1,4-Dichlorobenzene		
100-51-6	Benzyl alcohol	26000.	U
95-50-1	1,2-Dichlorobenzene	41000.	
95-48-7	2-Methylphenol	26000.	U
108-60-1	bis(2-Chloroisopropyl)ether	26000.	U
106-44-5	4-Methylphenol	26000.	U
621-64-7	N-Nitroso-di-n-propylamine		
67-72-1	Hexachloroethane	26000.	U
98-95-3	Nitrobenzene	26000.	U
78-59-1	Isophorone	26000.	U
88-75-5	2-Nitrophenol	26000.	U
105-67-9	2,4-Dimethylphenol	26000.	U
65-85-0	Benzoic acid	130000.	U
111-91-1	bis(2-Chloroethoxy)methane	26000.	U
120-83-2	2,4-Dichlorophenol	26000.	U
120-82-1	1,2,4-Trichlorobenzene		
91-20-3	Naphthalene	26000.	U
106-47-8	4-Chloroaniline	26000.	U
87-68-3	Hexachlorobutadiene	26000.	U
59-50-7	4-Chloro-3-methylphenol		
91-57-6	2-Methylnaphthalene	26000.	U
77-47-4	Hexachlorocyclopentadiene	26000.	U
88-06-2	2,4,6-Trichlorophenol	26000	U
95-95-4	2,4,5-Trichlorophenol		
91-58-7	2-Chloronaphthalene	26000.	U
88-74-4	2-Nitroaniline	130000.	U
131-11-3	Dimethylphthalate	26000.	U
208-96-8	Acenaphthylene	26000.	U
606-20-2	2,6-Dinitrotoluene	26000.	U

AR301246

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C8F76MSD

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: C8F76

RECEIVED APR 5 1990

Matrix: (soil/water) SOIL Lab Sample ID: 8S0005

Sample wt/vol: 1.000 (g/mL) G Lab File ID: DA581

Level: (low/med) MED Date Received: 1/ 6/90

% Moisture: not dec. 23. dec._____ Date Extracted: 1/10/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	130000.	U
83-32-9	Acenaphthene		
51-28-5	2,4-Dinitrophenol	130000.	U
100-02-7	4-Nitrophenol		
132-64-9	Dibenzofuran	26000.	U
121-14-2	2,4-Dinitrotoluene		
84-66-2	Diethylphthalate	26000.	U
7005-72-3	4-Chlorophenyl-phenylether	26000.	U
86-73-7	Fluorene	26000.	U
100-01-6	4-Nitroaniline	130000.	U
534-52-1	4,6-Dinitro-2-methylphenol	130000.	U
86-30-6	N-Nitrosodiphenylamine	26000.	U
101-55-3	4-Bromophenyl-phenylether	26000.	U
118-74-1	Hexachlorobenzene	26000.	U
87-86-5	Pentachlorophenol		
85-01-8	Phenanthrene	26000.	U
120-12-7	Anthracene	26000.	U
84-74-2	Di-n-butylphthalate	26000.	U
206-44-0	Fluoranthene	26000.	U
129-00-0	Pyrene		
85-68-7	Butylbenzylphthalate	26000.	U
91-94-1	3,3'-Dichlorobenzidine	51000.	U
56-55-3	Benzo(a)anthracene	26000.	U
218-01-9	Chrysene	26000.	U
117-81-7	bis(2-Ethylhexyl)phthalate	26000.	U
117-84-0	Di-n-octylphthalate	26000.	U
205-99-2	Benzo(b)fluoranthene	26	
207-08-9	Benzo(k)fluoranthene	26	
50-32-8	Benzo(a)pyrene	26000.	U
193-39-5	Indeno(1,2,3-cd)pyrene	26000.	U
53-70-3	Dibenzo(a,h)anthracene	26000.	U
191-24-2	Benzo(g,h,i)perylene	26000.	U

(1) - Cannot be separated from diphenylamine

AR301247

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF72MS

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0001MS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: C26A23

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 28. dec._____ Date Extracted: 1/ 8/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) Y pH: 6.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	22.	U
319-85-7	beta-BHC	22.	U
319-86-8	delta-BHC	22.	U
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide	22.	U
959-98-8	Endosulfan I	22.	U
60-57-1	Dieldrin		
72-55-9	4,4'-DDE	44.	U
72-20-8	Endrin		
33213-65-9	Endosulfan II	44.	U
72-54-8	4,4'-DDD	44.	U
1031-07-8	Endosulfan sulfate	44.	U
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor	220.	U
53494-70-5	Endrin ketone	44.	U
5103-71-9	alpha-Chlordane	220.	U
5103-74-2	gamma-Chlordane	220.	U
8001-35-2	Toxaphene	440.	U
12674-11-2	Aroclor-1016	220.	U
11104-28-2	Aroclor-1221	220.	U
11141-16-5	Aroclor-1232	220.	U
53469-21-9	Aroclor-1242	220.	U
12672-29-6	Aroclor-1248	220.	U
11097-69-1	Aroclor-1254	440.	U
11096-82-5	Aroclor-1260	240.	J

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CBF72MSD

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BS0001MSD

Sample wt/vol: 30.0 (g/mL) G Lab File ID: C26A24

Level: (low/med) LOW Date Received: 1/ 6/90

% Moisture: not dec. 28. dec._____ Date Extracted: 1/ 8/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

GPC Cleanup: (Y/N) Y pH: 6.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	22.	U
319-85-7	beta-BHC	22.	U
319-86-8	delta-BHC	22.	U
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide	22.	U
959-98-8	Endosulfan I	22.	U
60-57-1	Dieldrin		
72-55-9	4,4'-DDE	44.	U
72-20-8	Endrin		
33213-65-9	Endosulfan II	44.	U
72-54-8	4,4'-DDD	44.	U
1031-07-8	Endosulfan sulfate	44.	U
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor	220.	U
53494-70-5	Endrin ketone	44.	U
5103-71-9	alpha-Chlordane	220.	U
5103-74-2	gamma-Chlordane	220.	U
8001-35-2	Toxaphene	440.	U
12674-11-2	Aroclor-1016	220.	U
11104-28-2	Aroclor-1221	220.	U
11141-16-5	Aroclor-1232	220.	U
53469-21-9	Aroclor-1242	220.	U
12672-29-6	Aroclor-1248	220.	U
11097-69-1	Aroclor-1254	440.	U
11096-82-5	Aroclor-1260	520.	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKW1

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

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

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA404

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

% Moisture: not dec. 100. Date Analyzed: 1/ 8/90

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

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

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLKW1

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

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

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA404

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

% Moisture: not dec. 100. Date Analyzed: 1/ 8/90

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	NO SIGNIFICANT PEAKS PRESENT			
2.				
3.				
4.				
5.				
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30.				

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKS1

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

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

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA411

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

% Moisture: not dec. 0. Date Analyzed: 1/ 9/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1300.	U
74-83-9	Bromomethane	1300.	U
75-01-4	Vinyl Chloride	1300.	U
75-00-3	Chloroethane	1300.	U
75-09-2	Methylene Chloride	400.	J
67-64-1	Acetone	2600.	
75-15-0	Carbon Disulfide	630.	U
75-35-4	1,1-Dichloroethene	630.	U
75-34-3	1,1-Dichloroethane	630.	U
540-59-0	1,2-Dichloroethene (total)	630.	U
67-66-3	Chloroform	630.	U
107-06-2	1,2-Dichloroethane	630.	U
78-93-3	2-Butanone	170.	J
71-55-6	1,1,1-Trichloroethane	630.	U
56-23-5	Carbon Tetrachloride	630.	U
108-05-4	Vinyl Acetate	1300.	U
75-27-4	Bromodichloromethane	630.	U
78-87-5	1,2-Dichloropropane	630.	U
10061-01-5	cis-1,3-Dichloropropene	630.	U
79-01-6	Trichloroethene	630.	U
124-48-1	Dibromochloromethane	630.	U
79-00-5	1,1,2-Trichloroethane	630.	U
71-43-2	Benzene	630.	U
10061-02-6	trans-1,3-Dichloropropene	630.	U
75-25-2	Bromoform	630.	U
108-10-1	4-Methyl-2-Pentanone	1300.	U
591-78-6	2-Hexanone	1300.	U
127-18-4	Tetrachloroethene	630.	U
79-34-5	1,1,2,2-Tetrachloroethane	630.	U
108-88-3	Toluene	630.	U
108-90-7	Chlorobenzene	630.	U
100-41-4	Ethylbenzene	630.	U
100-42-5	Styrene	630.	U
1330-20-7	Xylene (total)	630.	U

FORM I VOA 1/87 Rev.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKS1

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

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

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA411

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

% Moisture: not dec. 0. Date Analyzed: 1/ 9/90

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	NO SIGNIFICANT PEAKS PRESENT			
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FORM I VOA-TIC 1/87 Rev.

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKS2

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

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

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA425

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

% Moisture: not dec. 0. Date Analyzed: 1/10/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1300.	U
74-83-9	Bromomethane	1300.	U
75-01-4	Vinyl Chloride	1300.	U
75-00-3	Chloroethane	1300.	U
75-09-2	Methylene Chloride	620.	J
67-64-1	Acetone	1100.	J
75-15-0	Carbon Disulfide	630.	U
75-35-4	1,1-Dichloroethene	630.	U
75-34-3	1,1-Dichloroethane	630.	U
540-59-0	1,2-Dichloroethene (total)	630.	U
67-66-3	Chloroform	630.	U
107-06-2	1,2-Dichloroethane	630.	U
78-93-3	2-Butanone	340.	J
71-55-6	1,1,1-Trichloroethane	630.	U
56-23-5	Carbon Tetrachloride	630.	U
108-05-4	Vinyl Acetate	1300.	U
75-27-4	Bromodichloromethane	630.	U
78-87-5	1,2-Dichloropropane	630.	U
10061-01-5	cis-1,3-Dichloropropene	630.	U
79-01-6	Trichloroethene	630.	U
124-48-1	Dibromochloromethane	630.	U
79-00-5	1,1,2-Trichloroethane	630.	U
71-43-2	Benzene	630.	U
10061-02-6	trans-1,3-Dichloropropene	630.	U
75-25-2	Bromoform	630.	U
108-10-1	4-Methyl-2-Pentanone	1300.	U
591-78-6	2-Hexanone	1300.	U
127-18-4	Tetrachloroethene	630.	U
79-34-5	1,1,2,2-Tetrachloroethane	630.	U
108-88-3	Toluene	630.	U
108-90-7	Chlorobenzene	630.	U
100-41-4	Ethylbenzene	630.	U
100-42-5	Styrene	630.	U
1330-20-7	Xylene (total)	630.	U

FORM I VOA

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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKS2

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

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

Sample wt/vol: 4.000 (g/mL) G Lab File ID: AA425

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

% Moisture: not dec. 0. Date Analyzed: 1/10/90

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	NO SIGNIFICANT PEAKS PRESENT			
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FORM I VOA-TIC 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) WATER Lab Sample ID: BLANK 1 1/8/90

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: BA231

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

% Moisture: not dec. 100. dec._____ Date Extracted: 1/ 8/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 1/ 9/90

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

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

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) WATER Lab Sample ID: BLANK 1 1/8/90

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: BA231

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

% Moisture: not dec. 100. dec._____ Date Extracted: 1/ 8/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 1/ 9/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	4,6-Dinitro-2-methylphenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	20.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenzo(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

FORM I SV-2 3/87 Rev.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK1

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) WATER Lab Sample ID: BLANK 1 1/8/90

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: BA231

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

% Moisture: not dec. 100. dec._____ Date Extracted: 1/ 8/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 1/ 9/90

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

Number TICs found: 4

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	30.47	10.	J
2.	- -	UNKNOWN	32.07	20.	J
3.	- -	UNKNOWN	34.04	20.	J
4.	- -	UNKNOWN	36.55	10.	J
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FORM I SV-TIC Rev.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK2

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BLANK #1 1/9/9

Sample wt/vol: 30.0 (g/mL) G Lab File ID: SA238

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

% Moisture: not dec. 0. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	660.	U
111-44-4	bis(2-Chloroethyl)ether	660.	U
95-57-8	2-Chlorophenol	660.	U
541-73-1	1,3-Dichlorobenzene	660.	U
106-46-7	1,4-Dichlorobenzene	660.	U
100-51-6	Benzyl alcohol	660.	U
95-50-1	1,2-Dichlorobenzene	660.	U
95-48-7	2-Methylphenol	660.	U
108-60-1	bis(2-Chloroisopropyl)ether	660.	U
106-44-5	4-Methylphenol	660.	U
621-64-7	N-Nitroso-di-n-propylamine	660.	U
67-72-1	Hexachloroethane	660.	U
98-95-3	Nitrobenzene	660.	U
78-59-1	Isophorone	660.	U
88-75-5	2-Nitrophenol	660.	U
105-67-9	2,4-Dimethylphenol	660.	U
65-85-0	Benzoic acid	3300.	U
111-91-1	bis(2-Chloroethoxy)methane	660.	U
120-83-2	2,4-Dichlorophenol	660.	U
120-82-1	1,2,4-Trichlorobenzene	660.	U
91-20-3	Naphthalene	660.	U
106-47-8	4-Chloroaniline	660.	U
87-68-3	Hexachlorobutadiene	660.	U
59-50-7	4-Chloro-3-methylphenol	660.	U
91-57-6	2-Methylnaphthalene	660.	U
77-47-4	Hexachlorocyclopentadiene	660.	U
88-06-2	2,4,6-Trichlorophenol		
95-95-4	2,4,5-Trichlorophenol	3300.	U
91-58-7	2-Chloronaphthalene	660.	U
88-74-4	2-Nitroaniline	3300.	U
131-11-3	Dimethylphthalate	660.	U
208-96-8	Acenaphthylene	660.	U
606-20-2	2,6-Dinitrotoluene	660.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK2

Lab Name: RECMD Contract: 63WS0051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BLANK #1 1/9/9

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BA236

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

% Moisture: not dec. 0. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3300.	U
83-32-9	Acenaphthene	660.	U
51-28-5	2,4-Dinitrophenol	3300.	U
100-02-7	4-Nitrophenol	3300.	U
132-64-9	Dibenzofuran	660.	U
121-14-2	2,4-Dinitrotoluene	660.	U
84-66-2	Diethylphthalate	71.	J
7005-72-3	4-Chlorophenyl-phenylether	660.	U
86-73-7	Fluorene	660.	U
100-01-6	4-Nitroaniline	3300.	U
534-52-1	4,6-Dinitro-2-methylphenol	3300.	U
86-30-6	N-Nitrosodiphenylamine	660.	U
101-55-3	4-Bromophenyl-phenylether	660.	U
118-74-1	Hexachlorobenzene	660.	U
87-86-5	Pentachlorophenol	3300.	U
85-01-8	Phenanthrene	660.	U
120-12-7	Anthracene	660.	U
84-74-2	Di-n-butylphthalate	660.	U
206-44-0	Fluoranthene	660.	U
129-00-0	Pyrene	660.	U
85-68-7	Butylbenzylphthalate	660.	U
91-94-1	3,3'-Dichlorobenzidine	1300.	U
56-55-3	Benzo(a)anthracene	660.	U
218-01-9	Chrysene	660.	U
117-81-7	bis(2-Ethylhexyl)phthalate	210.	J
117-84-0	Di-n-octylphthalate	660.	U
205-99-2	Benzo(b)fluoranthene	660.	U
207-08-9	Benzo(k)fluoranthene	660.	U
50-32-8	Benzo(a)pyrene	660.	U
193-39-5	Indeno(1,2,3-cd)pyrene	6	
53-70-3	Dibenzo(a,h)anthracene	6	
191-24-2	Benzo(g,h,i)perylene	660.	U

(1) - Cannot be separated from diphenylamine

AR301260

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK2

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BLANK #1 1/9/9

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BA235

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

% Moisture: not dec. 0. dec._____ Date Extracted: 1/ 9/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

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

Number TICs found: 7

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	625-86-5	Furan, 2,5-dimethyl-	4.17	1000.	J
2.	108-88-3	Benzene, methyl-	5.41	900.	J
3.	- -	UNKNOWN	6.49	2000.	J
4.	- -	UNKNOWN	6.57	2000.	J
5.	- -	UNKNOWN	7.25	80000.	J
6.	- -	UNKNOWN	8.57	900.	J
7.	- -	UNKNOWN	9.20	1000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK3

Lab Name: REGMD Contract: 68W80051

Lab Code: REGMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BLANK 1 1/10/9

Sample wt/vol: 1.000 (g/mL) G Lab File ID: DA578

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

% Moisture: not dec. 0. dec._____ Date Extracted: 1/10/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	20000.	U
111-44-4	bis(2-Chloroethyl)ether	20000.	U
95-57-8	2-Chlorophenol	20000.	U
541-73-1	1,3-Dichlorobenzene	20000.	U
106-46-7	1,4-Dichlorobenzene	20000.	U
100-51-6	Benzyl alcohol	20000.	U
95-50-1	1,2-Dichlorobenzene	20000.	U
95-48-7	2-Methylphenol	20000.	U
108-60-1	bis(2-Chloroisopropyl)ether	20000.	U
106-44-5	4-Methylphenol	20000.	U
621-64-7	N-Nitroso-di-n-propylamine	20000.	U
67-72-1	Hexachloroethane	20000.	U
98-95-3	Nitrobenzene	20000.	U
78-59-1	Isophorone	20000.	U
88-75-5	2-Nitrophenol	20000.	U
105-67-9	2,4-Dimethylphenol	20000.	U
65-85-0	Benzoic acid	100000.	U
111-91-1	bis(2-Chloroethoxy)methane	20000.	U
120-83-2	2,4-Dichlorophenol	20000.	U
120-82-1	1,2,4-Trichlorobenzene	20000.	U
91-20-3	Naphthalene	20000.	U
106-47-8	4-Chloroaniline	20000.	U
87-68-3	Hexachlorobutadiene	20000.	U
59-50-7	4-Chloro-3-methylphenol	20000.	U
91-57-6	2-Methylnaphthalene	20000.	U
77-47-4	Hexachlorocyclopentadiene	20000.	U
88-06-2	2,4,6-Trichlorophenol	2[illegible]	[illegible]
95-95-4	2,4,5-Trichlorophenol	1[illegible]	[illegible]
91-58-7	2-Chloronaphthalene	20000.	[illegible]
88-74-4	2-Nitroaniline	100000.	U
131-11-3	Dimethylphthalate	20000.	U
208-96-8	Acenaphthylene	20000.	U
606-20-2	2,6-Dinitrotoluene	20000.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK3

Lab Name: RECMO Contract: 68W80051

Lab Code: RECMO Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BLANK 1 1/10/9

Sample wt/vol: 1.000 (g/mL) G Lab File ID: DAS73

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

% Moisture: not dec. 0. dec._____ Date Extracted: 1/10/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	100000.	U
83-32-9	Acenaphthene	20000.	U
51-28-5	2,4-Dinitrophenol	100000.	U
100-02-7	4-Nitrophenol	100000.	U
132-64-9	Dibenzofuran	20000.	U
121-14-2	2,4-Dinitrotoluene	20000.	U
84-66-2	Diethylphthalate	20000.	U
7005-72-3	4-Chlorophenyl-phenylether	20000.	U
86-73-7	Fluorene	20000.	U
100-01-6	4-Nitroaniline	100000.	U
534-52-1	4,6-Dinitro-2-methylphenol	100000.	U
86-30-6	N-Nitrosodiphenylamine	20000.	U
101-55-3	4-Bromophenyl-phenylether	20000.	U
118-74-1	Hexachlorobenzene	20000.	U
87-86-5	Pentachlorophenol	100000.	U
85-01-8	Phenanthrene	20000.	U
120-12-7	Anthracene	20000.	U
84-74-2	Di-n-butylphthalate	20000.	U
206-44-0	Fluoranthene	20000.	U
129-00-0	Pyrene	20000.	U
85-68-7	Butylbenzylphthalate	20000.	U
91-94-1	3,3'-Dichlorobenzidine	40000.	U
56-55-3	Benzo(a)anthracene	20000.	U
218-01-9	Chrysene	20000.	U
117-81-7	bis(2-Ethylhexyl)phthalate	20000.	U
117-84-0	Di-n-octylphthalate	20000.	U
205-99-2	Benzo(b)fluoranthene	20000.	U
207-08-9	Benzo(k)fluoranthene		
50-32-8	Benzo(a)pyrene		
193-39-5	Indeno(1,2,3-cd)pyrene	20000.	U
53-70-3	Dibenzo(a,h)anthracene	20000.	U
191-24-2	Benzo(g,h,i)perylene	20000.	U

(1) - Cannot be separated from diphenylamine

AR301263

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK3

Lab Name: RECMB Contract: SEWBCGE1

Lab Code: RECMD Case No.: 10413 SAS No.: SDG No.: C3F72

Matrix: (soil/water) SOIL Lab Sample ID: BLANK 1 1/10/3

Sample wt/vol: 1.000 (g/mL) G Lab File ID: DF872

Level: (low/med) MED Date Received: 3/ 3/ 3

% Moisture: not dec. 0. dec._____ Date Extracted: 1/10/93

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/93

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

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

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 110-82-7	Cyclohexane, 1,3,5-trimethyl- (CAS)	2.32	320000.	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
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28.				
29.				
30.				

AR301264

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK1

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) WATER Lab Sample ID: BLK1WATER

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: C26A15

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

% Moisture: not dec. 100. dec._____ Date Extracted: 1/ 8/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 1/10/90

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

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

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK2

Lab Name: RECMD Contract: 68W80051

Lab Code: RECMD Case No.: 13413 SAS No.: SDG No.: CBF72

Matrix: (soil/water) SOIL Lab Sample ID: BLK1SOIL

Sample wt/vol: 30.0 (g/mL) G Lab File ID: C26A18

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

% Moisture: not dec. 0. dec._____ Date Extracted: 1/ 8/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 1/10/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	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	32.	U
72-20-8	Endrin	32.	U
33213-65-9	Endosulfan II	32.	U
72-54-8	4,4'-DDD	32.	U
1031-07-8	Endosulfan sulfate	32.	U
50-29-3	4,4'-DDT	32.	U
72-43-5	Methoxychlor	160.	U
53494-70-5	Endrin ketone	32.	U
5103-71-9	alpha-Chlordane	160.	U
5103-74-2	gamma-Chlordane	160.	U
8001-35-2	Toxaphene	320.	U
12674-11-2	Aroclor-1016	160.	U
11104-28-2	Aroclor-1221	160.	U
11141-16-5	Aroclor-1232	160.	U
53469-21-9	Aroclor-1242	160.	U
12672-29-6	Aroclor-1248	160.	U
11097-69-1	Aroclor-1254	320.	U
11096-82-5	Aroclor-1260	320.	U

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401
(301) 266-9180

RECEIVED
MAY 2 1990
STATE OF DELAWARE
DNREC SUPER FUND BRANCH

DATE : April 12, 1990

SUBJECT: Inorganic Data Validation for the Standard Chlorine Site
Case 13413

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

TO : Bob Guarni
Regional Project Manager (3HW25)

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

Attached is the inorganic data review for the Standard Chlorine Site (Case 13413) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III ESD.

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

Attachment

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

TID File: 03900117 Task 1280

WESTON
MANAGERS DESIGNERS/CONSULTANTS
2568A RIVA ROAD
SUITE 300
ANNAPOLIS, MD 21401
PHONE: 301-266-9887

DATE: 4 APRIL 1990

SUBJECT: INORGANIC DATA VALIDATION, Case 13413
SITE: STANDARD CHLORINE

FROM: PETE CHAPMAN PC
INORGANIC DATA REVIEWER

MAHBOOBEH MECANIC MM
SENIOR INORGANIC DATA REVIEWER

TO: TERRY SIMPSON
ESAT DEPUTY PROJECT OFFICER

THRU: RICHARD D. DRESSER RDD
ESAT TEAM MANAGER

OVERVIEW

The set of samples for Case 13413 contained one (1) aqueous sample and two (2) soil samples, which were analyzed through the Contract Laboratory Program (CLP) Routine Analytical Services. The aqueous sample was an equipment blank.

SUMMARY

All analytes were successfully analyzed in all samples. Areas of concern with respect to data usability are listed according to the seriousness of the problem. These include:

MINOR ISSUES

The soil laboratory duplicate results for the Al and V analytes were outside of the control limits (>35%). Therefore, the reported results for these analytes in the soil samples have been qualified estimated, "J".

Several soil matrix spike recoveries were low (30-74%) or high (>125%) in the analyses. The quantitation limits and reported results may be biased and have been qualified accordingly for the analytes in the soil samples as summarized in the following table:

ANALYTE	RECOVERY	REPORTED RESULT	QUANTITATION LIMIT
Sb,Pb,Tl	Low	L	UL
V	High	K*	N/A

* = The qualifier "J" denoting estimated value supercedes the qualifier "K".

N/A = Not applicable.

Analytical spike recoveries were low (<85%) for Se in sample MCCR23 and for Tl in sample MCCR22. The quantitation limit for sample MCCR23 and the reported result for sample MCCR22 may be biased low, and therefore, have been qualified "UL" and "L", respectively.

NOTE:

The data was reviewed in accordance with the National Functional Guidelines for Evaluating Inorganic Analyses.

INFORMATION REGARDING REPORT CONTENT

Table 1A is a summary of qualifiers added to the laboratory's results during evaluation.

ATTACHMENTS

TABLE 1A	SUMMARY OF QUALIFIERS ON DATA SUMMARY AFTER DATA VALIDATION
TABLE 1B	CODES USED IN COMMENTS COLUMN
TABLE 2	GLOSSARY OF DATA QUALIFIER CODES
TABLE 3	DATA SUMMARY FORM
APPENDIX A	RESULTS REPORTED BY LABORATORY FORM I's
APPENDIX B	DPO REPORT
APPENDIX C	SUPPORT DOCUMENTATION

PC003B12.STA

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TABLE 1A

SUMMARY OF QUALIFIERS ON DATA SUMMARY
AFTER DATA VALIDATION

ANALYTE	SAMPLES AFFECTED	POSITIVE VALUES	NON-DETECTED VALUES	BIAS	COMMENTS*
Al	MCCR22, MCCR23	J			A (36.6%)
Sb	MCCR22, MCCR23		UL	Low	B (35.0%)
Pb	MCCR22, MCCR23	L		Low	B (36.4%)
Se	MCCR23		UL	Low	C (74.4%)
Tl	MCCR22	L		Low	B (70.8%) C (80.7%)
	MCCR23		UL	Low	B (70.8%)
V	MCCR22, MCCR23	J			A (74.4%) D (140%)

* See explanation of comments in Table 1B

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TABLE 1B

CODES USED IN COMMENTS COLUMN

A = The laboratory duplicate results were outside of the control limits RPD >35% (relative percent difference is in parentheses). Therefore, reported results are estimated.

B = Due to a low matrix spike recovery (% recovery is in parentheses), the quantitation limits and/or reported results may be biased low.

C = Due to a low analytical spike recovery (% recovery is in parentheses), the quantitation limits and/or reported results may be biased low.

D = Due to a high matrix spike recovery (% recovery is in parentheses), the reported results may be biased high.

Table 3

DATA SUMMARY FORM: I N O R G A N I C S

AR301271

Name: Standard Chlorine

#: 13413 Sampling Date(s): 1/11/90

WATER SAMPLES
(ug/L)

[Due to dilution, sample quantitation limit is affected. See dilution table for specifics.

	Sample No.	MCCR24																					
	Dilution Factor	1.0																					
	Location	Equipment-Blank-2																					
CRDL	ANALYTE																						
200	Aluminum																						
60	Antimony																						
10	*Arsenic																						
200	Barium																						
5	Beryllium																						
5	*Cadmium																						
5000	Calcium																						
10	*Chromium																						
50	Cobalt																						
25	Copper																						
100	Iron	[35.1]																					
5	*Lead																						
5000	Magnesium																						
15	Manganese																						
0.2	Mercury																						
40	*Nickel																						
5000	Potassium																						
5	Selenium																						
10	Silver																						
5000	Sodium																						
10	Thallium	[1.1]																					
50	Vanadium																						
20	Zinc																						
10	*Cyanide																						

CRDL = Contract Required Detection Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

ble 3

AR301272

DATA SUMMARY FORM: I N O R G A N I C S

Name: Standard Chlorine

#: 13413 Sampling Date(s): 1/4/90

SOIL SAMPLES (mg/Kg)

*Due to dilution, sample quantitation limit is affected. See dilution table for specifics.

	Sample No.	MCCR22		MCCR23	
	Dilution Factor	1.0		1.0	
	% Solids	65.6		64.3	
	Location	WS-1		WS-2	
CRDL	ANALYTE				
40	Aluminum	27500	J	17100	J
12	Antimony		UL		UL
2	Arsenic	5.4		6.3	
40	Barium	142		102	
1	Beryllium	[1.2]		[0.75]	
1	Cadmium				
1000	Calcium	[927]		[781]	
2	Chromium	34.1		28.1	
10	Cobalt	[8.9]		[7.3]	
5	Copper	21.8		22.2	
20	Iron	30600		21800	
1	*Lead	33.8	L	24.2	L
1000	Magnesium	3120		2200	
3	Manganese	318		344	
0.2	Mercury	1.1		0.17	
3	Nickel	31.3		30.6	
1000	Potassium	[1250]		[968]	
1	Sele				UL
2	Silve				
1000	Sod	[383]		[372]	
2	Tha	[0.58]	L		UL
10	Van	105	J	138	J
4	Zinc	78.7		62.2	
2	Cya				

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

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APPENDIX A

RESULTS REPORTED BY LABORATORY

FORM I'S

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1

EPA SAMPLE NO. 7

INORGANIC ANALYSIS DATA SHEET

MCCR22

Lab Name: SILVER VALLEY LABS., INC Contract: 68-W8-0074

Lab Code: SILVER Case No.: 13413 SAS No.: SDG No.: MCCR22

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

Level (low/med): LOW Date Received: 1/05/90

% Solids: 65.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	27500.00		*	P
7440-36-0	Antimony	7.90	U	N	P
7440-38-2	Arsenic	5.40		S	F
7440-39-3	Barium	142.00			P
7440-41-7	Beryllium	1.20	B		P
7440-43-9	Cadmium	1.20	U		P
7440-70-2	Calcium	927.00	B		P
7440-47-3	Chromium	34.10			P
7440-48-4	Cobalt	8.90	B		P
7440-50-8	Copper	21.80			P
7439-89-6	Iron	30600.00			P
7439-92-1	Lead	33.80		N	F
7439-95-4	Magnesium	3120.00			P
7439-96-5	Manganese	318.00			P
7439-97-6	Mercury	1.10			CV
7440-02-0	Nickel	31.30			P
7440-09-7	Potassium	1250.00	B		P
7782-49-2	Selenium	.91	U		F
7440-22-4	Silver	.91	U		P
7440-23-5	Sodium	383.00	B		P
7440-28-0	Thallium	.58	B	NW	F
7440-62-2	Vanadium	105.00		N*	P
7440-66-6	Zinc	78.70			P
	Cyanide	1.50	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCR23

Lab Name: SILVER VALLEY LABS., INC Contract: 88-WS-0074

Lab Code: SILVER Case No.: 13413 SAS No.: SDG No.: MCCR22

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

Level (low/med): LOW Date Received: 1/05/90

% Solids: 84.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	17100.00		*	P
7440-36-0	Antimony	8.10	U	N	P
7440-38-2	Arsenic	6.30			F
7440-39-3	Barium	102.00			P
7440-41-7	Beryllium	.75	B		P
7440-43-9	Cadmium	1.20	U		P
7440-70-2	Calcium	781.00	B		P
7440-47-3	Chromium	28.10			P
7440-48-4	Cobalt	7.30	B		P
7440-50-8	Copper	22.20			P
7439-89-6	Iron	21800.00			P
7439-92-1	Lead	24.20		N	F
7439-95-4	Magnesium	2200.00			P
7439-96-5	Manganese	344.00			P
7439-97-6	Mercury	.17			CV
7440-02-0	Nickel	30.60			P
7440-09-7	Potassium	988.00	B		P
7782-49-2	Selenium	.93	U	W	F
7440-22-4	Silver	.93	U		P
7440-23-5	Sodium	372.00	B		P
7440-28-0	Thallium	.31	U	N	F
7440-62-2	Vanadium	138.00		N*	P
7440-66-6	Zinc	62.20			P
	Cyanide	1.60	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:

FORM I - IN //86

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCCR24

Lab Name: SILVER VALLEY LABS., INC Contract: 68-W8-0074

Lab Code: SILVER Case No.: 13413 SAS No.: SDG No.: MCCR22

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

Level (low/med): LOW Date Received: 1/05/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	21.00	U		P
7440-36-0	Antimony	26.00	U		P
7440-38-2	Arsenic	2.00	U		F
7440-39-3	Barium	13.00	U		P
7440-41-7	Beryllium	2.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	29.00	U		P
7440-47-3	Chromium	3.00	U		P
7440-48-4	Cobalt	6.00	U		P
7440-50-8	Copper	6.00	U		P
7439-89-6	Iron	35.10	B		P
7439-92-1	Lead	1.00	U		F
7439-95-4	Magnesium	47.00	U		P
7439-96-5	Manganese	2.00	U		P
7439-97-6	Mercury	.20	U		CV
7440-02-0	Nickel	25.00	U		P
7440-09-7	Potassium	691.00	U		P
7782-49-2	Selenium	3.00	U	W	F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	77.00	U		P
7440-28-0	Thallium	1.10	B	W	F
7440-62-2	Vanadium	6.00	U		P
7440-66-6	Zinc	2.00	U		P
	Cyanide	10.00	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

WESTON

APPENDIX B

DPO REPORT

WESTON SM

DPO: [ ] ACTION [X] FYI Region III

INORGANIC REGIONAL DATA ASSESSMENT SUMMARY

CASE NO: 13413
SDG NO: MCCR22
SOW: 7/88
NO. OF SAMPLES: 1

LABORATORY: SILVER
DATA USER: GERALD MUTH
REVIEW COMPLETION DATE: 3/28/90
MATRIX: Aqueous

REVIEWER: ESAT

	ICP	AA	Hg	CYANIDE
1. HOLDING TIMES	_O_	_O_	_O_	_O_
2. INITIAL CALIBRATIONS	_O_	_O_	_O_	_O_
3. CONTINUING CALIBRATIONS	_O_	_O_	_O_	_O_
4. FIELD BLANKS(F=NOT APPLICABLE)	_F_	_F_	_F_	_F_
5. LABORATORY BLANKS	_O_	_O_	_O_	_O_
6. ICS	_O_			
7. LCS	_O_	_O_		
8. DUPLICATE ANALYSIS	_O_	_O_	_O_	_O_
9. MATRIX SPIKE	_O_	_O_	_O_	_O_
10. MSA		_O_		
11. SERIAL DILUTION	_O_			
12. SAMPLE VERIFICATION	_O_	_O_	_O_	_O_
13. REGIONAL QC(F-NOT APPLICABLE)	_F_	_F_	_F_	_F_
14. OVERALL ASSESSMENT	_O_	_O_	_O_	_O_

O = No problems or minor problems that do not affect data usability
X = No more than about 5% of the data points are qualified as either estimated or unusable.
M = More than about 5% of the data points are qualified as estimated.
Z = More than about 5% of the data points are qualified as unusable.
A = DPO action requested; use in conjunction with one of the above codes.

DPO ACTION ITEMS: _____

AREAS OF CONCERN: _____

WESTON

DPO: [ ] ACTION [X] FYI

Region III

INORGANIC REGIONAL DATA ASSESSMENT SUMMARY

CASE NO: 13413
SDG NO: MCCR22
SOW: 7/88
NO. OF SAMPLES: 2

LABORATORY: SILVER
DATA USER: GERALD MUTH
REVIEW COMPLETION DATE: 3/28/90
MATRIX: Soil

REVIEWER: ESAT

	ICP	AA	Hg	CYANIDE
1. HOLDING TIMES	_O_	_O_	_O_	_O_
2. INITIAL CALIBRATIONS	_O_	_O_	_O_	_O_
3. CONTINUING CALIBRATIONS	_O_	_O_	_O_	_O_
4. FIELD BLANKS(F=NOT APPLICABLE)	_O_	_O_	_O_	_O_
5. LABORATORY BLANKS	_O_	_O_	_O_	_O_
6. ICS	_O_			
7. LCS	_O_	_O_		
8. DUPLICATE ANALYSIS	_M_	_O_	_O_	_O_
9. MATRIX SPIKE	_M_	_M_	_O_	_O_
10. MSA		_O_		
11. SERIAL DILUTION	_O_			
12. SAMPLE VERIFICATION	_O_	_O_	_O_	_O_
13. REGIONAL QC(F-NOT APPLICABLE)	_F_	_F_	_F_	_F_
14. OVERALL ASSESSMENT	_M_	_M_	_O_	_O_

O = No problems or minor problems that do not affect data usability
X = No more than about 5% of the data points are qualified as either estimated or unusable.
M = More than about 5% of the data points are qualified as estimated.
Z = More than about 5% of the data points are qualified as unusable.
A = DPO action requested; use in conjunction with one of the above codes.

DPO ACTION ITEMS: _____

AREAS OF CONCERN: _____

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APPENDIX C

SUPPORT DOCUMENTATION

U.S. EPA - CLP

5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MCCR22A

Lab Name: SILVER VALLEY LABS., INC Contract: 68-W8-0074

Lab Code: SILVER Case No.: 13413 SAS No.: SDG No.: MCCR22

Matrix: SOIL Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		127.02		26.00	U	120.0	105.5		P
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium		1043.35		345.35		690.0	102.0		P
Zinc									NR
Cyanide									NR

Comments:

FORM V (Part 2) - IN

Standard Addition Results

Lab Name: SILVER VALLEY LABS., INC Contract: 68-W8-0074

Lab Code: SILVER Case No.: 13413 SAS No.: SDG No.: MCCR22

Concentration Units: ug/L

EPA Sample No.	An	0 ADD ABS	1 ADD CON	1 ADD ABS	2 ADD CON	2 ADD ABS	3 ADD CON	3 ADD ABS	Final Conc.	r	Q
MCCR22	AS	.098	10.00	.156	20.00	.217	30.00	.258	17.6	.9990	

FORM VIII - IN 7/88

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401
(301) 266-9160

DATE : April 5, 1990

SUBJECT: Inorganic Data Validation for the Standard Chlorine Site Case 13149

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

TO : Bob Guarni
Regional Project Manager (3HW25)

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

Attached is the inorganic data review for the Standard Chlorine Site (Case 13149) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III ESD.

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

Attachment

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

TID File: 03900117 Task 1279

WESTON
MANAGERS DESIGNERS/CONSULTANTS
2568A RIVA ROAD
SUITE 300
ANNAPOLIS, MD 21401
PHONE: 301-266-9887

DATE: 2 APRIL 1990

SUBJECT: INORGANIC DATA VALIDATION, Case 13149
SITE: STANDARD CHLORINE

FROM: PETE CHAPMAN PC — INORGANIC DATA REVIEWER
MARSHA BURRELL MJB — SENIOR DATA REVIEWER

TO: TERRY SIMPSON
ESAT DEPUTY PROJECT OFFICER

THRU: RICHARD D. DRESSER RDD
ESAT TEAM MANAGER

OVERVIEW

The set of samples for Case 13149 contained two (2) soil samples which were analyzed through the Contract Laboratory Program (CLP) Routine Analytical Services.

SUMMARY

All analytes were successfully analyzed in all samples. Areas of concern with respect to data usability are listed according to the seriousness of the problem. These include:

MINOR ISSUES

The laboratory duplicate result for the Pb analyte was outside of the control limit (35%). Therefore, the reported results in the samples have been qualified estimated, "J".

The matrix spike recovery was high (>125%) for the Tl analyte; however, the analytical spike recoveries were low in the two samples. Therefore, the quantitation limit and reported result have been qualified estimated "UJ" and "J", respectively.

The matrix spike recoveries were low (30-75%) for the Sb and CN^- analytes. The quantitation limits for these analytes in the samples may be biased low, and therefore, have been qualified "UL".

The analytical spike recovery was low (<85%) in sample MCCE72 in the Sb analyte. The quantitation limit for this sample in the Sb analyte may be biased low and has been qualified "UL".

NOTES:

The data was reviewed in accordance with the National Functional Guidelines for Evaluating Inorganic Analyses.

INFORMATION REGARDING REPORT CONTENT

Table 1A is a summary of qualifiers added to the laboratory's results during evaluation.

ATTACHMENTS

TABLE 1A	SUMMARY OF QUALIFIERS ON DATA SUMMARY AFTER DATA VALIDATION
TABLE 1B	CODES USED IN COMMENTS COLUMN
TABLE 2	GLOSSARY OF DATA QUALIFIER CODES
TABLE 3	DATA SUMMARY FORM
APPENDIX A	RESULTS REPORTED BY LABORATORY FORM Is
APPENDIX B	DPO REPORT
APPENDIX C	SUPPORT DOCUMENTATION

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TABLE 1A

SUMMARY OF QUALIFIERS ON DATA SUMMARY
AFTER DATA VALIDATION

ANALYTE	SAMPLES AFFECTED	POSITIVE VALUES	NON-DETECTED VALUES	BIAS	COMMENTS*
Sb	MCCE72		UL	Low	A (51.3%) B (80.0%)
	MCCE73		UL	Low	A (51.3%)
Pb	MCCE72, MCCE73	J			C (172%)
Tl	MCCE72, MCCE73	J	UJ		D (130%) (82.5-83.0%)
CN^-	MCCE72, MCCE73		UL	Low	A (55.1%)

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TABLE 1B

CODES USED IN COMMENTS COLUMN

A = Due to a low matrix spike recovery (% recovery is in parentheses), the quantitation limits may be biased low.

B = Due to a low analytical spike recovery (% recovery is in parentheses), the quantitation limit may be biased low.

C = The laboratory duplicate results were outside of the control limits or RPD >35% (relative percent difference is in parentheses). Therefore, reported results are estimated.

D = Due to a high matrix spike recovery and low analytical spike recovery (% recoveries are in parentheses), the quantitation limit and reported result are estimated.

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TABLE 2

GLOSSARY OF DATA QUALIFIER CODES (INORGANIC)

CODES RELATED TO IDENTIFICATION
(confidence concerning presence or absence of analytes):

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

(NO CODE) = Confirmed identification.

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

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

CODES RELATED TO QUANTITATION
(can be used for both positive results and sample quantitation limits):

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

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

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

[] = Analyte present. As values approach the IDL the quantitation may not be accurate.

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

UL = Not detected, quantitation limit is probably higher.

OTHER CODES

Q = No analytical result.

Table 3

DATA SUMMARY FORM: I N O R G A N I C S

Site Name: Standard Chlorine

SOIL SAMPLES (mg/Kg)

Case #: 13149 Sampling Date(s): 11/17-20/89

*Due to dilution, sample quantitation limit is affected. See dilution table for specifics.

	Sample No.	MCCE72		MCCE73	
	Dilution Factor	1.0		1.0	
	% Solids	73.9		78.8	
	Location	SP-1		SD-3	
CRDL	ANALYTE				
40	Aluminum	10100		11000	
12	Antimony		UL		UL
2	Arsenic	[1.8]		[2.0]	
40	Barium	76.8		48.9	
1	Beryllium				
1	Cadmium				
1000	Calcium	[577]		[2911]	
2	Chromium	22.5		13.1	
10	Cobalt	14.6		15.1	
5	Copper	17.7		[5.8]	
20	Iron	15600		13800	
1	*Lead	24.3	J	31.2	J
1000	Magnesium	1290		[938]	
3	Manganese	122		63.1	
0.2	Mercury	0.18		0.35	
8	Nickel	13.6		[8.7]	
1000	Potas	[451]		[304]	
1	Seleni			[0.31]	
2	Silver				
1000	Sodiu	[777]			
2	Thalli	[0.33]	UJ		UJ
10	Vana	109		33.9	
4	Zinc	161.5		27.5	
2	Cyanide		UL		UL

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

revised 12/88

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APPENDIX A

RESULTS REPORTED BY LABORATORY

FORM I'S

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MCCE72

Lab Name: BETZ_LABORATORIES_TREVOSE Contract: 68-D9-0082

Lab Code: BETZPA Case No.: 13149 SAS No.: _____ SDG No.: MCCE72

Matrix (soil/water): SOIL_ Lab Sample ID: MCCE72____

Level (low/med): LOW__ Date Received: 11/18/89

% Solids: _73.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	10400	_		P_
7440-36-0	Antimony_	2.2	U	WN	F_
7440-38-2	Arsenic__	1.8	B		F_
7440-39-3	Barium___	76.8	_		P_
7440-41-7	Beryllium	0.80	U		P_
7440-43-9	Cadmium__	1.1	U	N	P_
7440-70-2	Calcium__	577	B		P_
7440-47-3	Chromium_	22.5	_		P_
7440-48-4	Cobalt___	14.6	_		P_
7440-50-8	Copper___	17.7	_		P_
7439-89-6	Iron____	15600	_		P_
7439-92-1	Lead____	24.3	_	*	F_
7439-95-4	Magnesium	1290	_		P_
7439-96-5	Manganese	122	_		P_
7439-97-6	Mercury__	0.18	_		CV
7440-02-0	Nickel___	13.6	_		P_
7440-09-7	Potassium	451	B		P_
7782-49-2	Selenium_	0.25	U	W	F_
7440-22-4	Silver___	2.4	U		P_
7440-23-5	Sodium___	77.7	B		P_
7440-28-0	Thallium_	0.33	B	WN	F_
7440-62-2	Vanadium_	109	_	*	P_
7440-66-6	Zinc____	61.5	_	*	P_
_____	Cyanide__	0.67	U	N	C_

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: _____ Artifacts: YES___

Comments:
SAMPLE_CONTAINS_GRASS_FRAGMENTS

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MCCE73

Lab Name: BETZ_LABORATORIES_TREVOSE Contract: 68-D9-0082

Lab Code: BETZPA Case No.: 13149 SAS No.: _____ SDG No.: MCCE72

Matrix (soil/water): SOIL_ Lab Sample ID: MCCE73____

Level (low/med): LOW__ Date Received: 11/18/89

% Solids: _78.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	11000	_		P_
7440-36-0	Antimony_	2.1	U	N	F_
7440-38-2	Arsenic__	2.0	B		F_
7440-39-3	Barium___	48.9	_		P_
7440-41-7	Beryllium	0.73	U		P_
7440-43-9	Cadmium__	0.97	U	N	P_
7440-70-2	Calcium__	294	B		P_
7440-47-3	Chromium_	13.1	_		P_
7440-48-4	Cobalt___	15.1	_		P_
7440-50-8	Copper___	5.8	B		P_
7439-89-6	Iron_____	13800	_		P_
7439-92-1	Lead_____	31.2	_	*	F_
7439-95-4	Magnesium	938	B		P_
7439-96-5	Manganese	63.1	_		P_
7439-97-6	Mercury__	0.35	_		CV
7440-02-0	Nickel___	8.7	B		P_
7440-09-7	Potassium	304	B		P_
7782-49-2	Selenium_	0.31	B		F_
7440-22-4	Silver___	2.2	U		P_
7440-23-5	Sodium___	70.2	U		P_
7440-28-0	Thallium_	0.24	U	WN	F_
7440-62-2	Vanadium_	33.9	_	*	P_
7440-66-6	Zinc_____	27.5	_	*	P_
_____	Cyanide__	0.63	U	N	C_

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN

7/88

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APPENDIX B

DPO REPORT

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DPO: [ ] ACTION [X] FYI Region III

INORGANIC REGIONAL DATA ASSESSMENT SUMMARY

CASE NO: 13149
SDG NO: MCCE72
SOW: 7/88
NO. OF SAMPLES: 2

LABORATORY: BETZPA
DATA USER: Charles Sands
REVIEW COMPLETION DATE: 3/26/90
MATRIX: Soil

REVIEWER: ESAT

	ICP	AA	Hg	CYANIDE
1. HOLDING TIMES	_O_	_O_	_O_	_O_
2. INITIAL CALIBRATIONS	_O_	_O_	_O_	_O_
3. CONTINUING CALIBRATIONS	_O_	_O_	_O_	_O_
4. FIELD BLANKS(F=NOT APPLICABLE)	_F_	_F_	_F_	_F_
5. LABORATORY BLANKS	_O_	_O_	_O_	_O_
6. ICS	_O_			
7. LCS	_O_	_O_		
8. DUPLICATE ANALYSIS	_O_	_M_	_O_	_O_
9. MATRIX SPIKE	_O_	_M_	_O_	_M_
10. MSA		_O_		
11. SERIAL DILUTION	_O_			
12. SAMPLE VERIFICATION	_O_	_O_	_O_	_O_
13. REGIONAL QC(F-NOT APPLICABLE)	_F_	_F_	_F_	_F_
14. OVERALL ASSESSMENT	_O_	_M_	_O_	_M_

O = No problems or minor problems that do not affect data usability
X = No more than about 5% of the data points are qualified as either estimated or unusable.
M = More than about 5% of the data points are qualified as estimated.
Z = More than about 5% of the data points are qualified as unusable.
A = DPO action requested; use in conjunction with one of the above codes.

DPO ACTION ITEMS: _____

AREAS OF CONCERN: _____

WESTON SM

APPENDIX C

SUPPORT DOCUMENTATION

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE

MCCE72A

Lab Name: BETZ_LABORATORIES_TREVOSE Contract: 68-D9-0082

Lab Code: BETZPA Case No.: 13149 SAS No.: _____ SDG No.: MCCE72

Matrix: ____SOIL_____ Level (low/med): LOW_____

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium		11.04		4.00	U	10.0	110.4		P
Calcium									NR
Chromium									
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide		20.13		10.00	U	20.0	100.6		C

Comments:

FORM V (Part 2) - IN

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401
(301) 266-9180

DATE : April 2, 1990

SUBJECT: Data Review of Case R3-2
Site: Standard Chlorine

FROM : Cynthia E. Kennedy, Environmental Scientist CEK
Program Support Section (3ES23)

TO : Robert Guarni, Project Manager
DE/MD Section (3HW25)

THRU : Cindy Metzger, Chief CCM
Program Support Section (3ES23)

Overview

Case R3-2 contained seven (7) low concentration water samples and twenty (20) low concentration soil samples for analysis of the following eight extractable compounds:

1,2,3-Trichlorobenzene
1,2,4-Trichlorobenzene
1,2,3,4-Tetrachlorobenzene
1,2,4,5-Tetrachlorobenzene
Pentachlorobenzene
Hexachlorobenzene
1-Chloro-3-nitrobenzene
Nitrobenzene

The sample set included one (1) field blank and two (2) equipment blanks. Analyses were performed by Versar, Inc. following Contract Laboratory Program (CLP) Statement of Work for the above parameters only.

Summary

All requested parameters were successfully analyzed for all samples. Several compounds coeluted and therefore, had to be quantitated together. 1,2,3-Trichlorobenzene coeluted with 1,3,5-trichlorobenzene. Although 1,3,5-trichlorobenzene was not in the parameter list, the laboratory calculated 1,2,3-trichlorobenzene based on the response factor for 1,2,4-trichlorobenzene. The reported value for 1,2,3-trichlorobenzene is the combined value for both the 1,2,3- and 1,3,5-trichlorobenzene isomers. 1,2,4,5-Tetrachlorobenzene and 1,2,3,5-tetrachlorobenzene also coeluted. The reported value for 1,2,4,5-tetrachlorobenzene is the combined value for both isomers.

The initial calibration consisted of only three standard concentrations compared to the five required by the CLP SOW. Tentatively identified compounds were not determined.

The data summary forms are grouped according to delivery groups for simplicity.

Major Problems

- Sample 45808 had all surrogate recovery values below 10%. Reextraction data was not included in the data package and was not submitted after request by reviewer. Sample results are qualified as biased low, "L", unless superseded by another qualifier. The detection limits are qualified as unreliable, "R".

Minor Problems

- Several water and soil samples were extracted past the (7) seven day technical holding times. Although there is not a technical holding time for soil samples, data are qualified based on water holding times. Results and detection limits for associated samples are qualified as biased low, "L", and, "UL", respectively, unless superseded by another qualifier.

- Two compounds failed precision criteria for the continuing calibration standards, hexachlorobenzene and 1-chloro-3-nitrobezene. Therefore the quantitation limits for these compounds are qualified as estimated, "UJ", for associated samples. The laboratory calculated the percent difference (%D) incorrectly on their continuing calibration forms. Corrected values are entered on the continuing calibration forms, which are included in the document support section.

Notes

- Positive results for several compounds in the samples are qualified as estimated, "J", as these values are below their associated Contract Required Quantitation Limits (CRQL).

- Several non-spiked compounds were present in the Matrix spike/Matrix spike duplicate results and are presented in Table 1.

- The laboratory did not report 1,2,3-trichlorobenzene on the Form I for sample 40233. The original Form I submitted by the laboratory and a copy, corrected by reviewer, are included in this report.

AR301299

- The chain of custody for samples collected on November 27-29, 1989 was not signed by laboratory.

- Where a sample required diluted analysis, results reported on the data summary forms are the highest value from the undiluted analysis and the diluted analysis.

All data were reviewed using the National Functional Guidelines as modified for use by Region III. The text of this report has been formulated to address only those problem areas affecting data usability.

1. Appendix A - Glossary of data qualifier codes.
2. Appendix B - Data Summary Forms.
3. Appendix C - Results as reported by the laboratory.
4. Appendix D - Support Documentation.

AR301300

Table I
MS/MSD Un-spiked Compounds Results
Case R3-2
Standard Chlorine

Compound	46977	46977MS	46977MSD	RSD
1,2,3-trichlorobenzene	11000 L	11000	11000	0%
1,2,3,4-tetrachlorobenzene	5200 L	6300	7000	15%
1,2,4,5-tetrachlorobenzene	1200 J	2600	1800	38%
Pentachlorobenzene	640 J	930 J	1200 J	30%

Compound	40233	40233MS	40233MSD	RSD
1,2,3-trichlorobenzene	220000 L	ND	ND	NA
1,2,3,4-tetrachlorobenzene	510000 L	250000	360000	35%
1,2,4,5-tetrachlorobenzene	970000 L	58000	74000	142%
pentachlorobenzene	32000 L	41000	55000	27%

ND: not detected
NA: not enough data to calculate RSD
RSD: relative standard deviation

APPENDIX A

Glossary of Data Qualifiers Codes

GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

CODES RELATING TO IDENTIFICATION
(confidence concerning presence or absence of compounds):

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

(NO CODE) - Confirmed identification.

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

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

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

CODES RELATED TO QUANTITATION
(can be used for both positive results and sample quantitation limits):

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

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

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

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

UL - Not detected, quantitation limit is probably higher.

OTHER CODES

Q - No analytical result.

revised 01/90