US EPA RECORDS CENTER REGION 5
448862

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

RECEIVED MAR 16 1994
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DATE: 3/11/94

SUBJECT: Review of Region V CLP Data
Received for Review on March 2, 1994

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

TO: Data User: BTV

We have reviewed the data for the following case.

SITE NAME: Pullman Factory (IL)

CASE and/or SAS NUMBER: 21530 (2) SDG NUMBER: EJZ28

Number and Type of Samples: 19 (Water/Soil)

CLP Sample Numbers: EJZ28-29 EQ6 89-94, 96, 99 EQC73 EQ438, ESE15 EJZ30

CLP Laboratory: Encotec Hrs. for Review 195
25
220 wpm

Following are our findings:

THE DATA ARE EASILY WITH THE QUALIFICATIONS DESCRIBED IN THE ATTACHED REVIEW

Patrick J. Clemlla 3/11/94

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

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

DATA QUALIFIERS

CONTRACTOR: E N C O T E C **CASE:** 21530 (2)

SITE NAME: PULLMAN FACTORY (IL) **SDG#:** EJZ28

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

A total of fourteen (14) samples were collected on the 24th and 25th of January 1994 The laboratory received eleven (11) soils and three (3) water samples on the 26th of January 1994 in good condition for full organic analysis

Water sample EQL73 was a trip blank

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

Reviewed by _____Krystyna Minczuk____Lockheed/ESAT_____

Date _____4 March 1994_____

NARRATIVE

CONTRACTOR. E N C O T E C **CASE** 21530 (2)

SITE NAME: PULLMAN FACTORY (IL) **SDG#** EJZ28

1. HOLDING TIME

The laboratory received eleven (11) low level soil samples and three (3) low level water samples on the 26th of January, 1994 in good condition

All samples were analyzed for Volatile, thirteen (13) of the fourteen (14) samples were analyzed for Semivolatile and Pesticides also

The samples were collected on the 24th and 25th of January 1994 and analysis of water and soil samples were performed according to procedures outlined in the 3/90 USEPA Contract Laboratory Program Statement of Work (SOW), OLM01 8 protocol

All Volatile water and soil samples were analyzed within the technical holding time of fourteen (14) days for soil and preserve water

All Semivolatile water samples met the technical holding time of seven (7) days for extraction All Semivolatile soil samples were extracted within the technical holding time of fourteen (14) days

All Pesticide water samples met the technical holding time of seven (7) days for extraction

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Date _____4 March 1994_____

CONTRACTOR E N C O T E C **CASE:** 21530 (2)

SITE NAME: PULLMAN FACTORY (IL) **SDG#:** EJZ28

All Pesticide soil samples were extracted within fourteen (14) days technical holding time

All Semivolatile and Pesticide extracts were analyzed within the forty (40) days technical holding time

2 GC/MS TUNING AND GC PERFORMANCE

The GC/MS tuning complied with the mass list and ion abundance criteria for BFB and DFTPP

GC Resolution Checks Mixture met the 60% resolution criteria on both DB-1701 and DB-17 columns Therefore, the resolution is acceptable

DDT and Endrin degradation check using PEMix on both quantitation (DB-1701) and confirmatory (DB-17) columns are acceptable <20%

The Florisil Cartridge Check met the QC limit (80-120%)

GPC calibration met the QC limit (80-110%) for all compounds on both DB-1701 and DB-17

3.CALIBRATION

Initial and continuing calibrations of the Volatile, Semivolatile and Pesticide standards were evaluated for the target compound list (TCL) and outliers are recorded on the outlier forms included as part of this narrative

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Date _____4 March 1994_____

CONTRACTOR: E N C O T E C **CASE.** 21530 (2)

SITE NAME. PULLMAN FACTORY (IL) **SDG#·** EJZ28

4 METHOD BLANK

VBLKCZ is the low level water Volatile method blank VBLKZE and VBLKAZ are low level soil Volatile method blanks

All method blanks are contaminated by Volatile target compounds Methylene Chloride (5 µg/L, 5 µg/KG and 5 µg/KG), Acetone (14 µg/L, 8 µg/KG and 11 µg/KG) and 2-Butanone (6 µg/L, 4 µg/KG and 5 µg/KG respectively)

Methylene Chloride, Acetone and 2-Butanone are common laboratory contaminants

The presence of common laboratory contaminants in any of the associated samples is flagged non-detected "U" when sample result is less than 10 times the blank result

The VOA method blank summary (FORM IV VOA) lists the associated samples

SBLKW1 is the low level water Semivolatile method blank

SBLKL2 is the low level soil Semivolatile method blank

Both method blanks contained the common laboratory contaminant bis(2-Ethylhexyl)phthalate (3 µg/L and 33 µg/KG respectively) and SBLK2 reported three (3) Semivolatile tentatively identified compounds

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Date _____4 March 1994_____

CONTRACTOR: E N C O T E C **CASE:** 21530 (2)

SITE NAME: PULLMAN FACTORY (IL) **SDG#:** EJZ28

The presence of common laboratory contaminants in any of the associated samples is flagged non-detected "U" when sample result is less than 10 times the blank result

Tentatively identified compounds are flagged as non-detected "U" when sample results are less than 5 times the blank result

The SVOA method blank summary (FORM IV SV) lists the associated samples

PBLKW2 is the Pesticide water method blank PBLKL2 is the Pesticide soil method blank

Both method blanks contained no Pesticide residues

There were three (3) Pesticide instrument blanks but no samples were associated with those blanks

All instrument blanks contained no Pesticide residues

5 SYSTEM MONITORING AND SURROGATE RECOVERY

All water Volatile system monitoring compound met the QC limits

All soil Volatile system monitoring compounds were well within the QC limits

All water Semivolatile surrogates met the QC limits

All soil Semivolatile surrogates met the QC limits

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Date _____4 March 1994_____

CONTRACTOR E N C O T E C **CASE:** 21530 (2)

SITE NAME PULLMAN FACTORY (IL) **SDG#:** EJZ28

Water Pesticide surrogates DCB(1) and DCB(2) Decachlorobiophenyl were below the QC limit in samples PBLKW2 (53%,51%), EQG99 (57%,56%) and ESE15 (58%,56%)

Any positive Pesticide results in samples PBLKW2, EQG99 and ESE15 are flagged as estimated "J" and any non-detected Pesticide results are flagged with the sample quantitation limit as estimated "UJ"

Soil Pesticide surrogates out of QC limit are present in Table below

Sample #	TCX(1)	TCX(2)	DCB(1)	DCB(2)
PBLKL2	-	-	59	59
EJZ28	-	-	35	44
EJZ29	-	-	42	59
EJZ30	-	-	48	56
EQG89	-	-	51	56
EQG89DL	-	-	-	55
EQG90	-	-	50	-
EQG91	-	-	51	-
EQG92	-	-	42	48
EQG93	-	-	52	50
EQG94	-	-	42	-
~~EQG56~~ EQG96 MGB 6/21/94	-	-	43	56
EQY38	-	-	45	49
EJZ28MS	-	-	44	44
EJZ28MSD	-	-	45	56

Bias low ↓

Advisory QC limits TCX(Tetrachloro-m-xylene) 60-150

DCB(Decachlorobiphenyl) 60-150

Any positive Pesticide results in samples shown in the Table are flagged as estimated "J" and any non-detected Pesticide results are flagged with the sample quantitation limit as estimated "UJ"

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Date _____4 March 1994_____

CONTRACTOR. E N C O T E C **CASE:** 21530 (2)

SITE NAME PULLMAN FACTORY (IL) **SDG#:** EJZ28

6.MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Sample **EQL73** was used as the water spike for Volatile fraction

All water Volatile matrix spike/matrix spike duplicate and % RPD were well within the QC limits

Sample **EJZ28** was used as the low level soil spike for Volatile, Semivolatile and Pesticide/PCB fractions

All low level soil Volatile matrix spike/matrix spike duplicate and % RPD were well within the QC limits

Low level soil Semivolatile matrix spike for 2,4-Dinitrotoluene (MS=97%) was above the QC limit (28-89%) but recovery was less than 100% , therefore no qualification is needed for this compound

All soil Pesticide matrix spike/matrix spike duplicate and % RPD were well within the QC limits

7 FIELD BLANK AND FIELD DUPLICATE

Sample EQL73 was a trip blank

EQL73 did not contain any Volatile target and tentatively identified compounds

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Date _____4 March 1994_____

CONTRACTOR E N C O T E C **CASE:** 21530 (2)

SITE NAME. PULLMAN FACTORY (IL) **SDG#:** EJZ28

8 INTERNAL STANDARDS

Volatile internal standard IS3 (CBZ) Chlorobenzene d5 area was below the QC limit in samples EQG89, EQG90, EQG91, EQG94, EQG96, EQG89RE, EQG90RE, EQG91RE, EQG94RE and EQG96RE

Any positive Volatile results for compounds quantitated using IS3 are flagged as estimated "J" and any non-detected Volatile results are flagged with the sample quantitation limit as estimated "UJ"

Please, refer to Table 4 to locate those Volatile compounds that are quantitated using IS3

All Semivolatile internal standard areas and RTs were well within the QC limits

9 COMPOUND IDENTIFICATION

After reviewing the mass spectra and chromatograms it appears that all compounds were properly identified

10.COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

All VOAs, SVOAs and Pesticides target compound quantitative results were properly reported

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Date _____4 March 1994_____

CONTRACTOR. E N C O T E C **CASE** 21530 (2)

SITE NAME: PULLMAN FACTORY (IL) **SDG#.** EJZ28

11 SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance

GC baseline indicated acceptable performance

12.ADDITIONAL INFORMATION

Volatile Samples EQG89, EQG90, EQG91, EQG94 and EQG96 failed the internal standard recoveries All those samples were reanalyzed as "RE" with the similar results

Pesticide 4,4'-DDE and 4,4'-DDT exceeded the calibration range in samples EQG89 and EQG92 Those samples were reanalyzed with higher dilutions as EQG89DL and EQG92DL to bring 4,4'-DDE and 4,4'-DDT to the calibration range Results from diluted samples should be used for data validation for 4,4'-DDE and 4,4'-DDT only

The Table below summarizes the number of target compounds outside the CRQL and number of tentatively identified compounds associated with these samples

Reviewed by _____Krystyna Minczuk____Lockheed/ESAT_____

Date _____4 March 1994_____

CONTRACTOR E N C O T E C **CASE:** 21530 (2)

SITE NAME PULLMAN FACTORY (IL) **SDG#:** EJZ28

Sample ID#	VOA		SVOA		Pest/PCB
	TCL	**TIC**	**TCL**	**TIC**	**TCL**
EJZ28	1	0	18	18	3
EJZ29	0	0	15	20	5
EJZ30	0	0	15	14	5
EQG89	0	0	13	11	3
EQG89RE/DL	1	1	-	-	2D
EQG90	1	0	14	13	2
EQG90RE	1	0	-	-	-
EQG91	1	0	13	11	2
EQG91RE	1	1	-	-	-
EQG92	1	1	11	18	3
EQG29DL	-	-	-	-	2D
EQG93	1	0	10	13	2
EQG94	0	0	18	13	4
EQG94RE	0	0	-	-	-
EQG96	1	0	13	17	3
EQG96RE	2	1	-	-	-
EQG99	1	0	1	2	0
EQL73 TB	0	0	-	-	-
EQY38	0	0	14	12	2
ESE15	0	0	0	0	0

(-) No analysis were performed
(RE) Reanalyzed sample
(DL) Diluted sample
(TB) Trip blank

No additional specific problems were noted in this data case

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Date _____4 March 1994_____

CALIBRATION OUTLIERS
VOLATILE TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS# 21530(2)
COLUMN CAP

CONTRACTOR Encotec
SITE NAME Pullman Factory (IL)

Instrument# 026		Initial Cal			Contin Cal			Contin Cal			Contin Cal			Contin Cal		
Date/Time		01/26/94 21 01			01/31/94 8 44			02/01/94 8 14								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0 01															
Bromomethane	0 10	.786			1016	369	J	.890								
Vinyl chloride	0 10															
Chloroethane	0 01															
Methylene chloride	0 01	1 765			1 752			2 224	26 3	J						
Acetone	0 01															
Carbon disulfide	0 01															
1,1 Dichloroethene	0 10															
1,1 Dichloroethane	0 20															
1,2 Dichloroethene (total)																
Chloroform	0 20															
1,2 Dichloroethane	0 10															
2 Butanone	0 01															
1,1,1 Trichloroethane	0 10															
Carbon tetrachloride	0 10															
Bromodichloromethane	0 20															
1,2 Dichloropropane																
cis 1,3 Dichloropropene	0 20															
Trichloroethene	0 30															
Dibromochloromethane	0 10															
1,1,2 Trichloroethane	0 10															
Benzene	0 50															
tran 1,3 Dichloropropene	0 10															
Bromoform	0 10															
4-Methyl 2 pentanone	0 01															
2 Hexanone	0 01															
Tetrachloroethene	0 20															
1,1,2,2 Tetrachloroethane	0 50															
Toluene	0 40															
Chlorobenzene	0 50															
Ethylbenzene	0 10															
Styrene	0 30															
Xylene (total)	0 30															
Toluene-d8																
Bromofluorobenzene																
1,2 Dichloroethane-d4																

Samples affected

VBLKZE	VBLKAZ
LJZ28-30	EQG94RE-
LJZ28MS	EQG91RE
LJZ28MSD	EQG93
EQY30	EQG94RE
EQG89-92	EQG96RE
EQG94	
EQG46	

Reviewer s Init/Date KM 3-3-96

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

CALIBRATION OUTLIERS
VOLATILE TCL COMPOUNDS
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CASE\SAS# 21930(2)
COLUMN CAP

CONTRACTOR Lancotec
SITE NAME Pullman Tacoma (L)

Instrument# 026		Initial Cal			Contin Cal			Contin Cal			Contin Cal			Contin Cal		
Date/Time		02/01/96 14 00			02/09/96 11 34											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0 01															
Bromomethane	0 10															
Vinyl chloride	0 10															
Chloroethane	0 01															
Methylene chloride	0 01															
Acetone	0 01	570	40 9	J	369	25 3	J									
Carbon disulfide	0 01															
1,1 Dichloroethene	0 10															
1,1 Dichloroethane	0 20															
1,2 Dichloroethene (total)																
Chloroform	0 20															
1,2 Dichloroethane	0 10															
2 Butanone	0 01	762			567	25 6	J									
1,1,1 Trichloroethane	0 10															
Carbon tetrachloride	0 10															
Bromodichloromethane	0 20															
1,2 Dichloropropane																
cis 1,3 Dichloropropene	0 20															
Trichloroethene	0 30															
Dibromochloromethane	0 10															
1,1,2 Trichloroethane	0 10															
Benzene	0 50															
tran 1,3 Dichloropropene	0 10															
Bromoform	0 10															
4 Methyl 2 pentanone	0 01	456			336	26 3	J									
2 Hexanone	0 01	301			217	27 9	J									
Tetrachloroethene	0 20															
1,1,2,2 Tetrachloroethane	0 50															
Toluene	0 40															
Chlorobenzene	0 50															
Ethylbenzene	0 10															
Styrene	0 30															
Xylene (total)	0 30															
Toluene-d8																
Bromofluorobenzene																
1,2 Dichloroethane-d4																

Samples affected

VBLKCZ
EQG 99
ESL 15
EQL 73
EQL 73 MS
EQL 73 MSD

Reviewer s Init/Date KM 3 3-44

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CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
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CASE\SAS# 21530 (2)
COLUMN

CONTRACTOR Encotec
SITE NAME Pullman Factory (IL)

Instrument# 025		Initial Cal			Contin Cal			Contin Cal			Contin Cal			Contin Cal		
Date/Time		02/19/94 22 23			02/21/94 10 55											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0 80															
bis(2-chloroethyl) Ether	0 70															
2 Chlorophenol	0 70															
1,3 Dichlorobenzene																
1,4 Dichlorobenzene																
1,2 Dichlorobenzene																
2 Methylphenol	0 70															
2,2 -Oxybis(1-chloropropane)	0 01	1764			1055	38 5	J									
4 Methylphenol	0 60															
N nitroso-di n propylamine	0 50															
Hexachloroethane	0 30															
Nitrobenzene	0 20															
Isophorone	0 40															
2 Nitrophenol	0 10															
2,4-Dimethylphenol	0 20															
bis (2-chloroethoxy) methane	0 30															
2,4 Dichlorophenol	0 20															
1,2,4 Trichlorobenzene	0 20															
Naphthalene	0 70															
4-Chloroaniline	0 01															
Hexachlorobutadiene	0 01															
4-Chloro 3 methylphenol	0 20															
2 Methylnaphthalene	0 -0															
Hexachlorocyclopentadiene	0 01	341			1232	26 7	J									
2 4,6-Trichlorophenol	0 20															
2,4,5 Trichlorophenol	0 20															
2 Chloronaphthalene	0 80															
2 Nitroaniline	0 01															
Dimethyl phthlate	0 01															
Acenaphthylene	1 30															
2,6-Dinitrotoluene	0 20															
3 Nitroaniline	0 01															
Acenaphthene	0 30															
2,4 Dinitrophenol	0 01	222			147	33:6	J									
4 Nitrophenol	0 01	1232			149	37 0	J									
Dibenzofuran	0 60															
2,4-Dinitrotoluene	0 20															
Affected samples					53LKW1 EUG49											

Reviewer s Init/Date KM 3 3 94

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CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
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CASE\SAS# 21530(2)
COLUMN

CONTRACTOR Lucotec
SITE NAME Pullman Factory (IL)

Instrument# C 25		Initial Cal			Contin Cal			Contin Cal			Contin Cal			Contin Cal		
Date/Time		02/19/94 22 23			02/21/94 10 35											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0 01															
4 Chlorophenyl phenylether	0 40															
Fluorene	0 90															
4 Nitroaniline	0 01															
4,6-Dinitro 2 methylphenol	0 01															
N nitrosodiphenylamine	0 01															
4 Bromophenyl phenylether	0 10															
Hexachlorobenzene	0 10															
Pentachlorophenol	0 05	120			0 16	36 1	J									
Phenanthrene	0 70															
Anthracene	0 70															
Carbazole																
Di n butylphthalate	0 01															
Fluoranthene	0 60															
Pyrene	0 60															
Butylbenzylphthalate	0 01															
3,3 Dichlorobenzidine	0 01															
Benzo(a)anthracene	0 80															
Chrysene	0 70															
bis(2 Ethylhexyl)phthalate	0 01															
Di n-octyl phthalate	0 01															
Benzo(b)fluoranthene	0 70															
Benzo(k)fluoranthene	0 70															
Benzo(a)pyrene	0 70															
Indeno(1,2,3-cd)pyrene	0 50															
Dibenz(a,h)anthrancene	0 40															
Benzo(g,h,i)perylene	0 50															
Nitrobenzene-d5	0 01															
2 Fluorobiphenyl	0 70															
Terphenyl-d14	0 50															
Phenol-d5	0 80															
2 Fluorophenol	0 60															
2,4,6-Tribromophenol	0 01															
2 Chlorophenol-d4																
1,2 Dichlorobenzene-d4																

Reviewer s Initials/Date KM 3 3 94

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CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
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CASE\SAS# 21530(2)
COLUMN

CONTRACTOR Enwtec
SITE NAME Pullman Factory (IL)

Instrument# 025		Initial Cal			Contin Cal			Contin Cal			Contin Cal			Contin Cal		
Date/Time		02/22/94 10:47			02/22/94 13:47											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0.80															
bis(2-chloroethyl) Ether	0.70															
2 Chlorophenol	0.70															
1,3 Dichlorobenzene																
1,4 Dichlorobenzene																
1,2 Dichlorobenzene																
2 Methylphenol	0.70															
2,2 -Oxybis(1-chloropropane)	0.01															
4 Methylphenol	0.60															
N nitroso-di n propylamine	0.50															
Hexachloroethane	0.30															
Nitrobenzene	0.20															
Isophorone	0.40															
2 Nitrophenol	0.10															
2,4-Dimethylphenol	0.20															
bis (2-chloroethoxy) methane	0.30															
2,4 Dichlorophenol	0.20															
1,2 4 Trichlorobenzene	0.20															
Naphthalene	0.70															
4-Chloroaniline	0.01															
Hexachlorobutadiene	0.01															
4-Chloro 3 methylphenol	0.20															
2 Methylnaphthalene	0.70															
Hexachlorocyclopentadiene	0.01	191			109	42.9	J									
2,4,6-Trichlorophenol	0.20															
2,4,5 Trichlorophenol	0.20															
2 Chloronaphthalene	0.80															
2 Nitroaniline	0.01															
Dimethylphthlate	0.01															
Acenaphthylene	1.30															
2,6-Dinitrotoluene	0.20															
3 Nitroaniline	0.01															
Acenaphthene	0.30															
2,4 Dinitrophenol	0.01															
4 Nitrophenol	0.01															
Dibenzofuran	[illegible]															
2,4-Dinitrotoluene	0.20															

Affected samples

EQ689
EQ693
EQ692
EJZ78

Reviewer's Init/Date KM 3-3-94

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\# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
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CASE\SAS# 21530(2)
COLUMN

CONTRACTOR Lucwtec
SITE NAME Tillmann Foundry (IL)

Instrument# 025		Initial Cal			Contin Cal			Contin Cal			Contin Cal			Contin Cal		
Date/Time		02/22/96 10 32			2/22/96 13 47											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0 01															
4 Chlorophenyl phenylether	0 40															
Fluorene	0 90															
4-Nitroaniline	0 01															
4,6-Dinitro 2 methylphenol	0 01															
N nitrosodiphenylamine	0 01															
4 Bromophenyl phenylether	0 10															
Hexachlorobenzene	0 10															
Pentachlorophenol	0 05	085			056	32 5	J									
Phenanthrene	0 70															
Anthracene	0 70															
Carbazole																
Di n butylphthalate	0 01															
Fluoranthene	0 60															
Pyrene	0 60															
Butylbenzylphthalate	0 01															
3,3 Dichlorobenzidine	0 01	246	13 1	J	226											
Benzo(a)anthracene	0 80															
Chrysene	0 70															
bis(2 Ethylhexyl)phthalate	0 01															
Di n-octyl phthalate	0 01															
Benzo(b)fluoranthene	0 70															
Benzo(k)fluoranthene	0 70															
Benzo(a)pyrene	0 70															
Indeno(1,2,3-cd)pyrene	0 50															
Dibenz(a,h)anthrancene	0 40															
Benzo(g,h,i)perylene	0 50															
Nitrobenzene-d5	0 01															
2 Fluorobiphenyl	0 70															
Terphenyl-d14	0 50															
Phenol d5	0 80															
2 Fluorophenol	0 60															
2,4,6-Tribromophenol	0 01															
2 Chlorophenol-d4																
1,2 Dichlorobenzene d4																

Reviewer s Initials/Date KH 3-3 94

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

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 1 of 2)

CASE\SAS# 21530(2)
COLUMN

CONTRACTOR Encotec
SITE NAME Pullman Factory (IL)

Instrument# 025		Initial Cal			Contin Cal			Contin Cal			Contin Cal			Contin Cal		
Date/Time		02/23/94 17 53			2/23/94 19 56											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0.80															
bis(2-chloroethyl) Ether	0.70															
2 Chlorophenol	0.70															
1,3 Dichlorobenzene																
1,4 Dichlorobenzene																
1,2 Dichlorobenzene																
2 Methylphenol	0.70															
2,2 -Oxybis(1-chloropropane)	0.01															
4 Methylphenol	0.60															
N nitroso-di n propylamine	0.50															
Hexachloroethane	0.30															
Nitrobenzene	0.20															
Isophorone	0.40															
2 Nitrophenol	0.10															
2,4-Dimethylphenol	0.20															
bis (2-chloroethoxy) methane	0.30															
2,4 Dichlorophenol	0.20															
1,2,4 Trichlorobenzene	0.20															
Naphthalene	0.70															
4-Chloroaniline	0.01															
Hexachlorobutadien	0.01															
4-Chloro 3 methylphenol	0.20															
2 Methylnaphthalene	0.70															
Hexachlorocyclopentadiene	0.01															
2,4,6-Trichlorophenol	0.20															
2,4,5 Trichlorophenol	0.20															
2 Chloronaphthalene	0.80															
2 Nitroaniline	0.01															
Dimethyl phthlate	0.01															
Acenaphthylene	1.30															
2,6-Dinitrotoluene	0.20															
3 Nitroaniline	0.01															
Acenaphthene	0.30															
2,4 Dinitrophenol	0.01															
4 Nitrophenol	0.01															
Dibenzofuran	0.6															
2,4-Dinitrotoluene	0.20															

Affected samples

	BLKL2			
	LL691			
	LL648			
	LL640			
	LL638			

Reviewer s Init/Date KM 3 3 94

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

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 2 of 2)

CASE\SAS# 21530(2)
COLUMN

CONTRACTOR Eurotec
SITE NAME Pullman Factory (IL)

Instrument# 025		Initial Cal			Contin Cal			Contin Cal			Contin Cal			Contin Cal		
Date/Time		02/23/94 12 52			2/23/94 19 56											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0 01															
4 Chlorophenyl phenylether	0 40															
Fluorene	0 90															
4 Nitroaniline	0 01															
4,6-Dinitro 2 methylphenol	0 01															
N nitrosodiphenylamine	0 01															
4 Bromophenyl phenylether	0 10															
Hexachlorobenzene	0 10															
Pentachlorophenol	0 05															
Phenanthrene	0 70															
Anthracene	0 70															
Carbazole																
Di n butylphthalate	0 01															
Fluoranthene	0 60															
Pyrene	0 60															
Butylbenzylphthalate	0 01															
3,3 Dichlorobenzidine	0 01															
Benzo(a)anthracene	0 80															
Chrysene	0 70															
bis(2 Ethylhexyl)phthalate	0 01															
Di n-octyl phthalate	0 01															
Benzo(b)fluoranthene	0 70															
Benzo(k)fluoranthene	0 70															
Benzo(a)pyrene	0 70															
Indeno(1,2,3-cd)pyrene	0 50															
Dibenz(a,h)anthrancene	0 40															
Benzo(g,h,i)perylene	0 50															
Nitrobenzene d5	0 01															
2 Fluorobiphenyl	0 70															
Terphenyl-d14	0 50															
Phenol-d5	0 80															
2 Fluorophenol	0 60															
2,4,6-Tribromophenol	0 01															
2 Chlorophenol-d4																
1,2 Dichlorobenzene-d4																

Reviewer s Initials/Date KM 2-2-94

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

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 1 of 2)

CASE\SAS# 21530(2)
COLUMN

CONTRACTOR Encotec
SITE NAME Cullman Factory (L)

Instrument# 025		Initial Cal			Contin Cal			Contin Cal			Contin Cal			Contin Cal		
Date/Time		02/24/94 15 29			02/24/94 20 52											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0.80															
bis(2-chloroethyl) Ether	0.70															
2 Chlorophenol	0.70															
1,3 Dichlorobenzene																
1,4 Dichlorobenzene																
1,2 Dichlorobenzene																
2 Methylphenol	0.70															
2,2 -Oxybis(1-chloropropane)	0.01															
4 Methylphenol	0.60															
N nitroso-di n propylamine	0.50															
Hexachloroethane	0.30															
Nitrobenzene	0.20															
Isophorone	0.40															
2 Nitrophenol	0.10															
2,4-Dimethylphenol	0.20															
bis (2-chloroethoxy) methane	0.30															
2,4 Dichlorophenol	0.20															
1,2,4 Trichlorobenzene	0.20															
Naphthalene	0.70															
4-Chloroaniline	0.01															
Hexachlorobutadiene	0.01															
4-Chloro 3 methylphenol	0.20															
2 Methylnaphthalene	0.70															
Hexachlorocyclopentadiene	0.01															
2,4,6-Trichlorophenol	0.20															
2,4,5 Trichlorophenol	0.20															
2 Chloronaphthalene	0.80															
2 Nitroaniline	0.01															
Dimethyl phthlate	0.01															
Acenaphthylene	1.30															
2,6-Dinitrotoluene	0.20															
3 Nitroaniline	0.01															
Acenaphthene	0.30															
2,4 Dinitrophenol	0.01	226			165	27.0	J									
4 Nitrophenol	0.01															
Dibenzofuran	0.80															
2,4-Dinitrotoluene	0.20															

Affected samples

ESE15
CJZ29
CJZ28
CJZ28MS
CJZ28MSD
CJ644

Reviewer s Init/Date KM 3 3 94

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

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 2 of 2)

CASE\SAS# 21530(2)
COLUMN

CONTRACTOR Elucotex
SITE NAME Pullman Factory (4)

Instrument# 025		Initial Cal			Contin Cal			Contin Cal			Contin Cal			Contin Cal		
Date/Time		02/24/94 15:20			02/24/94 2 52											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0 01															
4 Chlorophenyl phenylether	0 40															
Fluorene	0 90															
4 Nitroaniline	0 01															
4,6-Dinitro 2 methylphenol	0 01															
N nitrosodiphenylamine	0 01															
4 Bromophenyl phenylether	0 10															
Hexachlorobenzene	0 10															
Pentachlorophenol	0 05															
Phenanthrene	0 70															
Anthracene	0 70															
Carbazole																
Di n butylphthalate	0 01															
Fluoranthene	0 60															
Pyrene	0 60															
Butylbenzylphthalate	0 01															
3,3 Dichlorobenzidine	0 01															
Benzo(a)anthracene	0 80															
Chrysene	0 70															
bis(2 Ethylhexyl)phthalate	0 01															
Di n-octyl phthalate	0 01															
Benzo(b)fluoranthene	0 70															
Benzo(k)fluoranthene	0 70															
Benzo(a)pyrene	0 70															
Indeno(1,2,3-cd)pyrene	0 50															
Dibenz(a,h)anthrancene	0 40															
Benzo(g,h,i)perylene	0 50															
Nitrobenzene-d5	0 01															
2 Fluorobiphenyl	0 70															
Terphenyl-d14	0 50															
Phenol d5	0 80															
2 Fluorophenol	0 60															
2,4,6-Tribromophenol	0 01															
2 Chlorophenol-d4																
1,2 Dichlorobenzene-d4																

Reviewer s Initials/Date KM 3-3-94

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

CALIBRATION OUTLIERS
PESTICIDE/PCB TCL COMPOUNDS

CASE\SAS#: 21530(2) CONTRACTOR: Envotec

Column: DB 1701 Site Name: Pullman Factory (IL)

Instrument# 3400-A	Initial Cal		Continue Cal.		Continue Cal		Continue C	
Date/Time	02/15-15/94		02/16/94 3 53					
	%RSD	*	%RPD	*	%RPD	*	%RPD	*
Alpha-BHC								
Beta-BHC								
Delta-BHC								
Gamma-BHC								
Pentachlor								
Aldrin								
Pentachlor epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
Endrin aldehyde								
Alpha chlordane								
Gamma chlordane								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254								
Aroclor-1260								
Toxaphene								

Affected samples				
		ESE15		
		EJZ28-30		
		LJZ28MS		
		EJZ28MSD		
		EQ699		
		EQ433		
		EQ699-		
		EQ693		
		EQ696		
		EQ689DL		
		EQ692DL		

Reviewer's Init/Date KM 5-4-94

RSAT-5-024 2 1/93

* These flags should be applied to the analytes on the sample data sheets

CALIBRATION OUTLIERS
PESTICIDE/PCB TCL COMPOUNDS

CASE\SAS#: 21530(2) CONTRACTOR: Ecotec

Column: DB 17 Site Name: Pullman Factory (IL)

Instrument# 340015	Initial Cal		Continue Cal.		Continue Cal		Continue C	
Date/Time	02/19-19/94		02/16/94 353					
	%RSD	*	%RPD	*	%RPD	*	%RPD	*
Alpha-BHC								
Beta-BHC								
Delta-BHC								
Gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
Endrin aldehyde								
Alpha chlordane								
Gamma chlordane								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254								
Aroclor-1260								
Toxaphene								

Affected samples

	ESE15		
	EJZ28 30		
	EJZ28 MS		
	EJZ28 MSD		
	LQ699		
	LQ638		
	LQ689-		
	LQ693		
	EQ696		
	LQ690DL		
	LQ692DL		

Reviewer's Init/Date KM 3-4-94

RSAT-5-024 2 1/93

These flags should be applied to the analytes on the sample data sheets

TABLE 4

(Multi Media Multi Concentration and Low Concentration Water)

VOLATILE INTERNAL STANDARDS WITH CORRESPONDING TCL ANALYTES ASSIGNED FOR QUANTITATION

1,4 Difluorobenzene	Chlorobenzene d_5	1,4 Dichlorobenzene d_4
Chloromethane	Toluene	Bromoform
Bromomethane	1 1 1 Trichloroethane	1 2 Dibromo 3 chloropropane*
Vinyl chloride	Carbon tetrachloride	1 2 Dichlorobenzene*
Chloroethane	Bromodichloromethane	1 3 Dichlorobenzene*
Methylene chloride	1 2 Dichloropropane	1 4 Dichlorobenzene*
Acetone	trans 1 3 Dichloropropene	
Carbon disulfide	Trichloroethene	
1 1 Dichloroethene	Dibromochloromethane	
1 1 Dichloroethane	1 1 2 Trichloroethane	
2 Butanone	Benzene	
Chloroform	cis 1 3 Dichloropropene	
1 2 Dichloroethane	Chlorobenzene	
4 Bromofluorobenzene(surr)	Ethylbenzene	
2 Butanone	Styrene	
Bromomethane*	Xylenes(total)	
cis 1 2 Dichloroethene**	4 Methyl 2 pentanone	
trans 1 2 Dichloroethene**	2 Hexanone	
	Tetrachloroethane	
	1 1 2 2 Tetrachloroethane	
	1 2 Dibromoethane*	

SEMIVOLATILE INTERNAL STANDARDS WITH CORRESPONDING TCL ANALYTES ASSIGNED FOR QUANTITATION

1,4 Dichlorobenzene d_4	Naphthalene d_8	Acenaphthene d_{10}	Phenanthrene d_{10}	Chrysene d_{12}	Perylene d_{12}
Phenol	Nitrobenzene	Hexachlorocyclopentadiene	4 6 Dinitro 2 methylphenol	Pyrene	Di n octyl phthalate
bis(2 chloroethyl)ether	Isophorone	2 4 6 Trichlorophenol	N nitroso di phenylamine	butylbenzyl phthalate	Benzo(b)fluoranthene
2 Chlorophenol	2 Nitrophenol	2 4 5 Trichlorophenol	Carbazole	3 3 Dichlorobenzidine	Benzo(k)fluoranthene
1 3 Dichlorobenzene	2 4 Dimethylphenol	2 Chloronaphthalene	4 Bromophenyl phenyl ether	Benzo(a)anthracene	Benzo(a)pyrene
1 4 Dichlorobenzene	Naphthalene	2 Nitroaniline	Hexachlorobenzene	bis(2 Ethylhexyl)phthalate	Indeno(1 2 3 cd)pyrene
2 2 Oxybis (1 chloropropane)	bis(2 Chloroethoxy)methane	Dimethylphthalate	Pentachlorophenol	Chrysene	Dibenzo(a h)anthracene
1 2 Dichlorobenzene	2 4 Dichlorophenol	Acenaphthylene	Phenanthrene	Terphenyl d_{14}(surr)	Benzo(g h i)perylene
2 Methylphenol	1 2 4 Trichlorobenzene	3 Nitroaniline	Anthracene		
1 2 Dichlorobenzene d_4(surr)	4 Chloroaniline	Acenaphthene	Di n butyl phthalate		
4 Methylphenol	Hexachlorobutadiene	2 4 Dinitrophenol	Fluoranthene		
N nitroso di n propylamine	4 Chloro 3 methylphenol	4 Nitrophenol			
Hexachloroethane	2 Methylnaphthalene	Dibenzofuran			
2 Fluorophenol(surr)	Nitrobenzene d_5(surr)	2 4 Dinitrotoluene			
Phenol d_5(surr)		2 6 Dinitrotoluene			
2 Chlorobenzene d_4(surr)		Diethyl phthalate			
		4 Chlorophenyl phenyl ether			
		Fluorene			
		4 Nitroaniline			
		2 Fluorobiphenyl(surr)			
		2 4 6 Tribromophenol(surr)			

(Surr) surrogate

* Compounds not on Multi Media Multi Concentration

** Compounds on Multi Media Multi Conc TCL as total 1 2 DCE

DATA REPORTING QUALIFIERS
(page 1)

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

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

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

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

and df = dilution factor

$$\text{at } 24\%\ \text{moisture, } D = \frac{100 - 24}{100} = 0\ 76$$

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

For soil samples subjected to GPC clean-up procedures, the extract must be concentrated to 0 5 ml, and the sensitivity of the analysis is not compromised by the cleanup procedures Therefore, the CRQL values will apply to all samples, regardless of cleanup However, if a sample extract cannot be concentrated to the protocol-specified volume, this fact be accounted for in reporting the Sample Quantitation Limit

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

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

DATA REPORTING QUALIFIERS
(page 2)

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

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

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

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

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

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

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No (2) CERCLIS No IL

Case No 215-30 Site Name Location Pullman Factory

Contractor or EPA Lab Encotec Data User B&V

No of Samples 14 Date Samples or Data Received 3-2-94

Have Chain-of-Custody records been received? YES ✓ NO ___
Have traffic reports or packing lists been received? YES ✓ NO ___
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO ___
If no, which traffic report or packing list numbers are missing?

___ ___ ___ ___
___ ___ ___ ___

Are basic data forms in? YES ✓ NO ___
No of samples claimed 14 No of samples received 14

Received by Lynette Burnett Date 3-2-94

Received by LSSS Dorothy M May Date 3/02/94

Review started 3-3-94 Reviewer Signature K. Hindrum

Total time spent on review 195 Date review completed 3-9-94

Copied by Freddie Hopkins Date 3/11/94

Mailed to user by Lynette Burnett Date 3-14-94

DATA USERS
Please fill in the blanks below and return this form to
Sylvia Griffin Data Mgmt Coordinator, Region V ESCRL

Data received by ___ Date ___

Data review received by ___ Date ___
Inorganic Data Complete( ) Suitable for Intended Purpose( ) ✓ if OK
Organic Data Complete ( ) Suitable for Intended Purpose( ) list
Dioxin Data Complete ( ) Suitable for Intended Purpose( ) prblms
SAS Data Complete ( ) Suitable for Intended Purpose( ) below
PROBLEMS Please indicate reasons why data are not suitable for your uses

___

___

Received by Data Mgmt Coordinator for Files Date ___

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

RECEIVED MAR 16 1994

RECEIVED ~~MAR 14 1994~~

DATE

SUBJECT Review of Region V CLP Data
Received for Review on March 3, 1994

FROM Charles T Elly, Director (SL-10C)
Central Regional Laboratory
B Freeman for CT Elly 3/11/94

TO Data User B+V

We have reviewed the data for the following case.

SITE NAME Pullman Factory (IL)

CASE and/or SAS NUMBER 21530 (1) SDG NUMBER. meQD39

Number and Type of Samples: 20 - soils

CLP Sample Numbers: meQD 38-40, meQD49, 84-89, meQR90-9

CLP Laboratory: SWOK Hrs. for Review 75 #19 TR

Following are our findings

Data are acceptable for use with qualification. See attached data review for detail

B Freeman
3/11/94

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

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

NARRATIVE

SITE PULLMAN FACTORY (IL) CASE 21530
LABORATORY SWOK SDG MEQD39

The laboratory's portion of case 21530 contains 20 low level soil samples assayed for total metals and total cyanide The following narrative lists the out of control audits and their possible effects on the results

EVIDENTIAL AUDIT All forms are originals All of the raw data sheets are originals The original sample tags, the original Federal Express airbill and the original chain of custody forms are present

All forms are present and in the order indicated on the Form DC-2 [inventory sheet]

According to SOW ILM02 1, the laboratory has to use an approved method that is stated in the SOW and the element IDL has to be equal to or less than the CRDL The SOW contains ICP methods for As, Pb, Se and Tl, and the laboratory's ICP IDL for As, Pb, Se and Tl were below the CRDL As, Pb, Se and Tl were analyzed in an ICP assay separate from the regular ICP metals

ICP ANALYSES

The duplicate RPD for Cu (124 5%) is out of control The Cu LCS result (7926 1 mg/Kg) is outside the control limits (6006 0 mg/Kg - 7820 0 mg/Kg) Cu data are estimated (J) due to poor precision and high bias

The matrix spike recovery for Sb (50 3%) is out of control Sb data on MEQD38-40, 49, 84-89 and MEQR90-99 are estimated (J) due to low bias

The serial dilution audit on Zn (18 0%) is out of control Zn data are estimated (J) due to interference

The preparation blank contains Ag (0 411 µg/L) Ag data on MEQD84 and MEQR97 are estimated (J) due to contamination

Reviewed by Matthew A Knopp Matthew A Knopp, Lockheed/ESAT
Date 3-9-94

OTHER ANALYSES.

All CN data are acceptable

The duplicate RPD for Hg (200 0%) was flagged by the laboratory, however the duplicate difference does not exceed the technical criterion (2xCRDL) for soil samples Hg data are not qualified on this basis The matrix spike recovery for Hg (43 9%) is out of control Hg data on MEQD39-40, 86, MEQR90-92 and 94-99 are estimated (J) due to low bias Hg data on MEQD38, 49, 84, 87-89 and MEQR93 are estimated (UJ) due to possible elevation of the detection limit

Note No field blanks or field duplicates are associated with case 21530 SDG MEQD39

Reviewed by Matthew A Knopp, Lockheed/ESAT
Date 3-5-94

GLOSSARY A

Data Qualifier Definitions

For the purpose of defining the flagging nomenclature utilized in this document, the following code letters and associated definitions are provided

U - The material was analyzed for, but was not detected above the level of the associated value The associated value is either the sample quantitation limit or the sample detection limit

J - The associated value is an estimated quantity

R - The data are unusable (Note The analyte may or may not be present)

UJ - The material was analyzed for, but was not detected The associated value is an estimate and may be inaccurate or imprecise

E - The reported value is estimated because of the presence of interferences An explanatory note shall be included under Comments on the Cover Page (if the problem applies to all samples) or on the specific FORM I-IN (if it is an isolated problem)

M - Duplicate injection precision not met

N - Spiked sample recovery not within control limits

S - The reported value was determined by the Method of Standard Addition (MSA)

W - Post-digestion spike for furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of the spike absorbance

+ - Correlation coefficient for the MSA is less than 0 995

* - Duplicate analysis not within control limits

Note Entering "S", "W", or "+" is mutually exclusive No combination of these qualifiers can appear in the same field for an analyte

QC EXCEPTION SUMMARY REPORT

CASE\SAS#: 21530 SITE: Pullman Factory (IL) MATRIX: Soil WATER SAMPLE SPK: —

DATA SET: MEQ038 LAB: Scook CONC: 1000 WATER SAMPLE DUP: —

LAB QC # REVIEWED BY: M Knoll SOIL SAMPLE SPK: MEQR925

DATE: 3-6-94 SOIL SAMPLE DUP: MEQR927

FORM #		FORM 2	FORM 2	FORM 3	FORM 3	FORM 3	FORM 4	FORM 5	FORM 6	FORM 7	FORM 7	FORM 9	FORM 9	FORM 6	FORM 8	FIELD	FIELD	FIELD	FIELD		
ELEMENT	HOLD TIME	INITIAL CALIB	CONTIN CALIB	CALIB BLANK	~~PREP WATER BLANK~~	PREP SOIL BLANK	ICS %R	SOIL SPIKE %R	SOIL DUP RPD	~~LCS AQ~~	LCS SOIL	~~SERIAL DILUTION AQUEOUS~~	SERIAL DILUTION SOIL	~~AQ DUP RPD~~	~~AQ SPIKE %R~~	BLANK	DUP RPD	~~BLANK~~	~~DUP RPD~~	~~GFAA DUP~~	~~GFAA ANALYTE SPIKE~~
ALUMINUM	OK	OK	OK	~~219~~ 8	—		OK			—	OK	—		—	—						—
ANTIMONY					—			✓		—		—		—	—					—	—
ARSENIC				~~2.1 2.4 4.1~~	—	~~0.601~~		✓ 50.3		—		—		—	—				—		
BARIUM										—		—		—	—			—	—		
BERYLLIUM					—					—		—		—	—						
CADMIUM					—					—		—		—	—						
CALCIUM						~~210~~ 311				—		—		—	—				—		
CHROMIUM					—					—		—		—	—				—		
COBALT					—					—		—		—	—			—	—		—
COPPER				~~30~~ 8		~~0.524~~			✓ Elev (124.5)	< 2xCRDL		—			—						
IRON										—		—		—	—						
LEAD					—					—		—		—	—						
MAGNESIUM										—		—		—	—			—	—		
MANGANESE				~~0.4 1.8~~						—		—		—	—						
MERCURY					—			✓ 43.1	✓ Elev (200 u)	< 2xCRDL		—			—			—	—		
NICKEL					—					—		—			—						
POTASSIUM					—	~~33.7 J~~				—		—		—	—				—		
SELENIUM					—					—		—			—						
SILVER					—	✓ 0.411				—		—		—							
SODIUM										—		—		—	—			—	—		
THALLIUM					—					—		—		—	—			—	—	—	
TIN					—					—		—		—	—			—			—
VANADIUM					—					—		—		—	—					—	
ZINC					—	~~0.48 J~~				—		—	✓ 18.0		—						
CYANIDE	↓	↓	↓		—		↓			—	↓	—			—			—			

~~Ag (4.1) MEQ038, 37, 40, 49, 84, 85, 86, 88, 89~~ MEQR 90, 91, 92, 93, 94, 95, 96, 97, ~~98, 99~~ PBS

Ag (0.411) MEQ084, MEQR97

Ag

ESAT 3 060 0

EPA

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

Inorganic Traffic Report & Chain of Custody Record

(For Inorganic CLP Analysis)

SAS No (if applicable):

Case No: 21530

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

2 Preservative (Enter in Column D)
1. HCl
2. HNO_3
3. NaOH
4 H_2SO_4
5 $K_2CR_2O_7$
6 Ice only
7. Other (Specify)
N Not preserved

3 Region No: V

Sampling Co: BVWST

5 Date Shipped: 1/21/94

Carrier: Fed Ex

7 Date Received -- Received by: 1-22-94 K Collis

Sampler (Name): Miguel A Sanchez

Airbill Number: 8630885745

Laboratory Contract Number: 68-D2-0040

Unit Price: $13.00

Sampler Signature: Miguel A Sanchez

6 Ship To: mal 1/21/94
~~Encotec~~
Southwest Labs of Oklahoma
1700 West Albany
Broken Arrow, OK 74012
(918) 251-2858
ATTN Missy Hamby

8 Transfer to:

Date Received:

Received by:

Contract Number:

Price:

4 Type of Activity

Lead		Pre-Remedial		Remedial		Removal	
SF				RIFS		CLEM	
PRP		PA		RD		REMA	
ST		SSI		RA		REM	
FED		LSF	X	O&M		OIL	
				NPLD		UST	

CLP Sample Numbers (from labels)	A Enter # from Box 1	B Conc Low Med High	C Sample Type Comp./Grab	D Preservative from Box 6	E RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc only: Nitrate/Nitrite	Fluoride	High only: pH	Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp CLP Org Samp No	K Sample Condition on Receipt	L High Conc. Phases (Check below): Solids	Water - MIS Liq	Non Water - Mis Liq
MEQD59	5	L	G	6	X		X					5-021489	PF-5521-001	01/19/94/1600		EQG95	intact			
MEQD49	5	L	G	6	X		X					5-021497	PF-5523-001	01/20/94/0755		EQG97	↓			
MEQQ95	4	L	G	2	X							5-059975	PF-RB01-201	01/21/94/1630		EQG98				
MEQQ93	4	L	G	3			X					5-059976	PF-RB01-201	01/21/94/1630		EQG98	↓			

Shipment for Case complete? (Y/N) N

Page 2 of 2

Sample used for a spike and/or duplicate

Additional Sampler Signatures

Chain of Custody Seal Number: 166995-96

CHAIN OF CUSTODY RECORD

Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
Miguel A Sanchez	01/21/94 1800				
Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
Relinquished by (Signature)	Date / Time	Received for Laboratory by (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	
		K Collis	1/22/94 0915		

Split Samples: ☐ Accepted (Signature) ☐ Declined

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251

215587

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

Inorganic Traffic Report & Chain of Custody Record

(For Inorganic CLP Analysis)

SAS No (if applicable):

Case No: 21550 (4)

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

2 Preservative (Enter in Column D)
1 HCl
2 HNO3
3 NaOH
4 H_2SO_4
5 $K_2CR_2O_7$
6 Ice only
7 Other (Specify)
N Not preserved

3 Region No: V

Sampling Co: BVWST

5 Date Shipped: 1/21/94

Carrier: Fed Ex

7 Date Received: 1-22-94

Received by: [illegible]

Sampler (Name): Miguel A Sanchez

Airbill Number: 8630885745

Laboratory Contract Number: 68-D2-0010

Unit Price: $113.00

Sampler Signature: Miguel A Sanchez

6 Ship To: Southwest Labs of Oklahoma
1700 West Albany
Broken Arrow, OK 74012
(918) 251-2858
ATTN Missy Hamby

8 Transfer to:

Date Received:

Received by:

Contract Number:

Price:

4 Type of Activity

Lead		Pre-Remedial		Remedial		Removal	
SF	X			RIFS		CLEM	
PRP		PA		RD		REMA	
ST		SSI		RA		REM	
FED		LSI	X	O&M		OIL	
				NPLD		UST	

CLP Sample Numbers (from labels)	A Enter # from Box 1	B Conc Low Med High	C Sample Type Comp./Grab	D Preservative from Box 6	E RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc only: Nitrate/Nitrite	Fluoride	High only: pH	Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp CLP Org Samp No	K Sample Condition on Receipt	L High Conc. Phases (Check below): Solids	Water - Mis Liq	Non Water - Mis Liq
MEQR90	5	L	G	6	X		X					5-055389	PF-SS01-001	01/19/94 / 1450		EJZ18	intact	-		
MEQR91	5	L	G	6	X		X					5-055393	PF-SS02-001	01/20/94 / 1518		EJZ19				
MEQR92	5	L	G	6	X		X					5-055397	PF-SS03-001	01/20/94 / 0900		EJZ20				
MEQR93	5	L	G	6	X		X					5-055892	PF-SS04-001	01/19/94 / 1345		EJZ21				
MEQR94	5	L	G	6	X		X					5-055896	PF SS05 001	01/19/94 / 1510		EJZ22				
MEQR95	5	L	G	6	X		X					5-055900	PF-SS06-001	01/20/94 / 1100		EJZ23				
MEQR96	5	L	G	6	X		X					5-~~055~~139916	PF-SS07-001	01/20/94 / 1120		EJZ24				
MEQR97	5	L	G	6	X		X					5-139920	PF-SS08 001	01/20/94 / 0950		EJZ25				
MEQR98	5	L	G	6	X		X					5-139924	PF-SS09-001	01/20/94 / 1345		EJZ26				
MEQR99	5	L	G	6	X		X					5-021659	PF-SS10-001	01/20/94 / 1420		EJZ27				

Shipment for Case complete? (Y/N) Y — MAJ 01/21/94

Page 1 of 2 — MAJ 01/21/94

Sample used for a spike and/or duplicate: MEQR92

Additional Sampler Signatures:

Chain of Custody Seal Number: 166995-96

CHAIN OF CUSTODY RECORD

Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
Miguel A Sanchez	01/21/94 1800				
Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		[illegible]	1/22/94 0915		

Split Samples: ☐ Accepted (Signature) ☐ Declined

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292

1 345581

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

Inorganic Traffic Report & Chain of Custody Record

(For Inorganic CLP Analysis)

(if applicable) 2153

1 Sample Description (Enter in Column A)	2. Preservative (Enter in Column D)	3 Region No	Sampling Co	5 Date Shipped	Carrier	7 Date Received	Received by
1 Surface Water 2 Ground Water 3 Leachate 4 Rinsate 5 Soil/Sediment 6 Oil (High only) 7 Waste (High only) 8 Other (Specify)	1 HCl 2 HNO3 3 NaOH 4 H_2SO_4 5 $K_2CR_2O_7$ 6 Ice only 7 Other (Specify) N Not preserved	V	BVWST	1/25/94	Fed EX	1-22-94	[illegible]

Sampler (Name)	Airbill Number	Laboratory Contract Number	Unit Price
Stephen Mehay	3976745920	68-D2-0040	$113.00

Sampler Signature	6 Ship To	8 Transfer to	Date Received
[signature]	Southwest labs of Oklahoma 1700 West Albany Broken Arrow, OK 74012 (918) 251-2558 ATTN Missy Hamby		

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

Received by

Contract Number | Price

CLP Sample Numbers (from labels)	A Enter # from Box 1	B Conc Low Med High	C Sample Type Comp./Grab	D Preservative from Box 6	E RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc only: Nitrate/Nitrite	Fluoride	High only: pH	Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp CLP Org Samp No	K Sample Condition on Receipt	L High Conc Phases (Check below): Solids	Water - MS Liq	Non Water - Ms Liq.
MEQR48	5	L	G	6	X		X					5-024437	PF SS11 001	1/24/94 1645		EJ728	intact			
MEQR49					X		X					5-024441	PF SS12 001	1/24/94 1025		EJ729				
MEQR50					X		X					5-024445	PF-SS13-001	1/24/94 1615		EJ734				
MEQD34					X		X					5-024449	PF-SS14-001	1/24/94 1443		EQ738				
MEQD35					X		X					5-022562	PF-SS15 001	1/24/94 1245		EQ689				
MEQD88					X		X					5 022566	PF SS18-001	1/24/94 1130		EQG92				
MEQD89					X		X					5-022570	PF-SS19 001	1/24/94 1230		EQG93				
MEQD38					X		X					5 022574	PF SS20 001	1/24/94 1200		EQG94				
MEQD86	5	L	G	6	X		X					5-022578	PF-SS16-001	1/25/94 0840		EQG90				
MEQD87	5	L	G	6	X		X					5-022582	PF-SS17-001	1/25/94 0945		EQG91				

Additional Sample received in SDG 1/27/94

Shipment for Case complete? (Y/N)	Page 1 of 2	Sample used for a spike and/or duplicate	Additional Sampler Signatures	Chain of Custody Seal Number
		MEQR48		125235 + 125236

CHAIN OF CUSTODY RECORD

Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
[signature]	1/25/94 1500				
Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	
		[signature]	1/27/94 0915		

Split Samples ☐ Accepted (Signature)
☐ Declined

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I 345578

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

Inorganic Traffic Report & Chain of Custody Record

(For Inorganic CLP Analysis)

SAS No (if applicable):

Case No: 21530

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

2 Preservative (Enter in Column D)
1 HCl
2 HNO_3
3 NaOH
4 H_2SO_4
5 $K_2CR_2O_7$
6 Ice only
7 Other (Specify)
N Not preserved

3 Region No: V

Sampling Co: BVWST

5 Date Shipped: 1/25/94

Carrier: F&C EX

7 Date Received: 1-27-94 Received by: K Wilson

Sampler (Name): Steven Maley

Airbill Number: 3417674592 0

Laboratory Contract Number: 68-D2-0040

Unit Price: $113.00

Sampler Signature: Steve Maley

6 Ship To: Southwest Labs of Oklahoma, 1700 West Albany, Broken Arrow, OK 74012, (918) 251-2858, ATTN Missy Hamby

8 Transfer to:

Date Received:

Received by:

Contract Number:

Price:

4 Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF			RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		LSE	O&M	OIL
			NPLD	UST

CLP Sample Numbers (from labels)	A Enter # from Box 1	B Conc Low Med High	C Sample Type Comp / Grab	D Preservative from Box 6	E RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc. only: Nitrate/Nitrite	Fluoride	High only: pH	Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp CLP Org Samp No	K Sample Condition on Receipt (intact)	L High Conc Phases (Check below): Solids	Water - MIS Liq	Non Water - Mis Liq
MEQD40	5	L	G	6	X		X					5-022586	PF-SS22-001	1/25/94/1035		EQG96				
MEQQ94	4	L	G	2	X							5-022591	PF-RB02-201	1/25/94/1130		EQG99				
MEQQ94	4	L	G	3			X					5-022592	PF-RB02-201	1/25/94/1130		EQG99				
MEQQ95	4	L	G	2	X							5-022597	PF-RB03-201	1/25/94/1140		ESE15				
MEQQ95	4	L	G	3			X					5-022598	PF RB03-201	1/25/94/1140		ESE15				

Shipment for Case complete? (Y/N): Y

Page 1 of 2

Sample used for a spike and/or duplicate: MEQR48

Additional Sampler Signatures:

Chain of Custody Seal Number: 125235 + 125236

CHAIN OF CUSTODY RECORD

Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
Steve Maley	1/25/94 1500				
Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
Relinquished by (Signature)	Date / Time	Received for Laboratory by (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		K Wilson	1/27/94 0915		

Split Samples: ☐ Accepted (Signature) ☐ Declined

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Jason D. Ruckman

3/2/1994

Inorganic Program Manager

Jason D Ruckman

3/2/1994

Inorganic Program Manager

Sun 6/17/94

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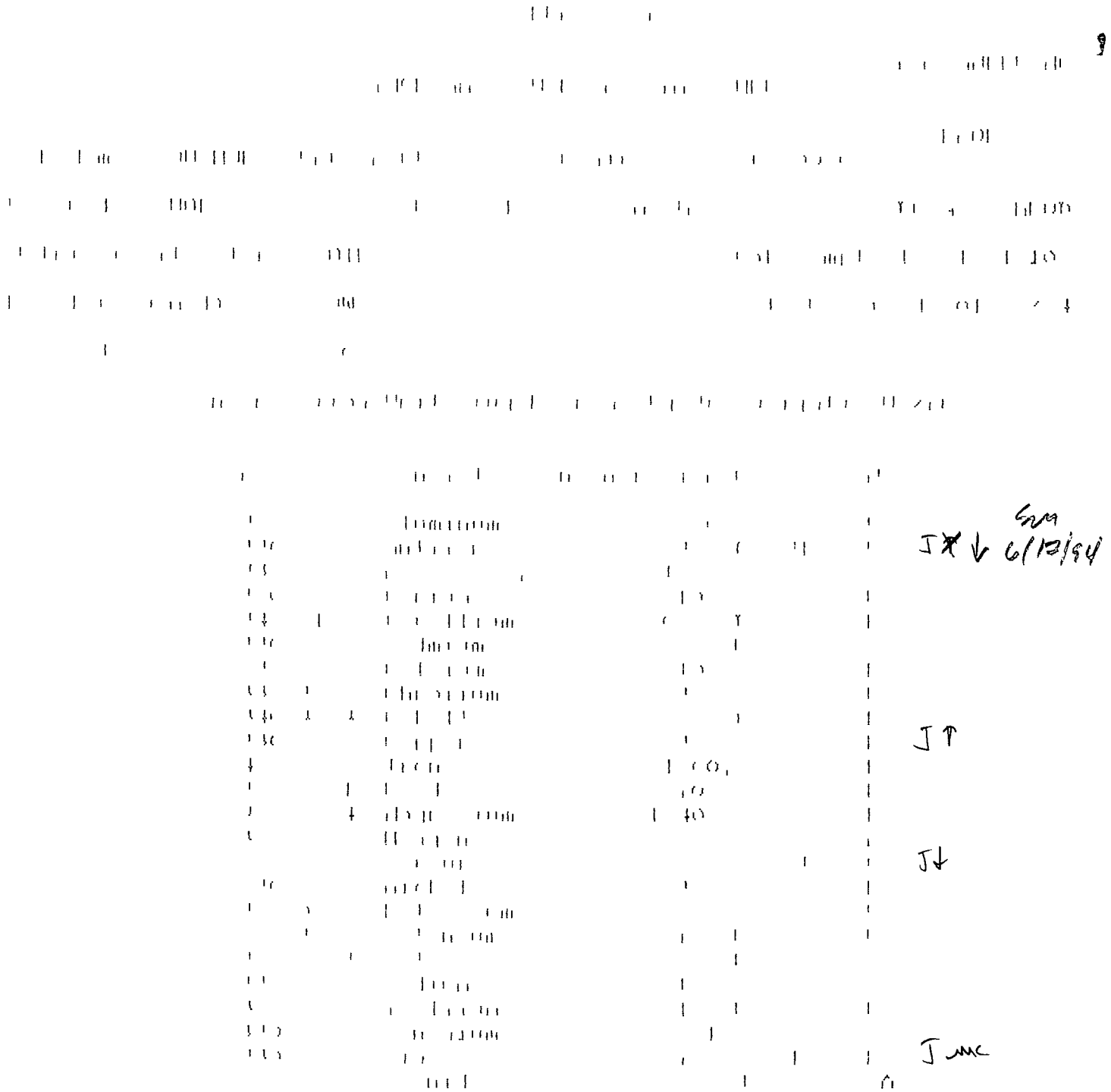
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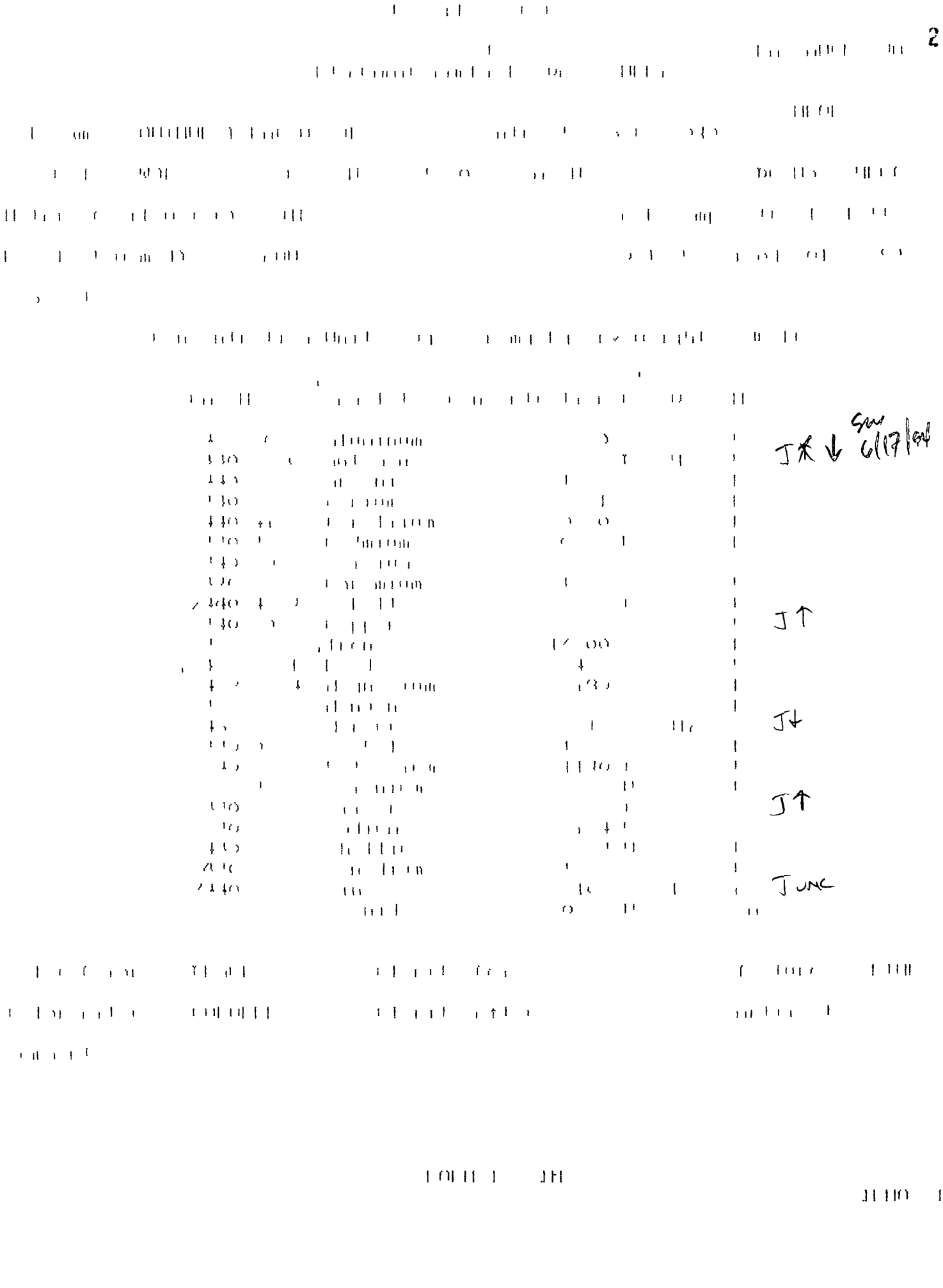
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JUNC
6/17/84

J ↓ Sm 6/14/94

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J unc

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J↑

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[illegible]

[illegible]

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No _____ (1) CERCLIS No (IL) _____

Case No 21530 Site Name Location Pullman Factory

Contractor or EPA Lab SWDK Data User BTV

No of Samples 20 Date Samples or Data Received 3-3-94

Have Chain-of-Custody records been received? YES ✓ NO ____
Have traffic reports or packing lists been received? YES ✓ NO ____
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO ____
If no which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ____
No of samples claimed 20 No. of samples received 20

Received by AD Harris Date 3-3-94

Received by LSSS Dorothy M May Date 3/04/94

Review started 3-7-94 Reviewer Signature Matthew A Knapp

Total time spent on review 7.5 +1.9 TM Date review completed 3-9-94

Copied by Frederick Hopkins Date 3/11/94

Mailed to user by Lynette Burnett Date 3-14-94

DATA USERS
Please fill in the blanks below and return this form to
Sylvia Griffin Data Mgmt Coordinator, Region V ESCRL

Data received by _____ Date _____

Data review received by _____ Date _____
Inorganic Data Complete( ) Suitable for Intended Purpose( ) ✓ if OK
Organic Data Complete ( ) Suitable for Intended Purpose( ) list
Dioxin Data Complete ( ) Suitable for Intended Purpose( ) prblms
SAS Data Complete ( ) Suitable for Intended Purpose( ) below
PROBLEMS Please indicate reasons why data are not suitable for your uses

Received by Data Mgmt Coordinator for Files Date _____

RECEIVED MAR 16 1994

RECEIVED MAR 14 1994

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE 3/14/94

SUBJECT Review of Region V CLP Data
Received for Review on Feb 25, 1994

FROM Charles T Elly, Director (SL-10C) MAI INCTE
Central Regional Laboratory

TO. Data User: BHV

We have reviewed the data for the following case.

SITE NAME. Pullman Factory (IL)

CASE and/or SAS NUMBER 21530 (1) SDG NUMBER. EJZ18

Number and Type of Samples: 13 (soil + Water)

CLP Sample Numbers: EJZ18-27, EQC 95, 97-98

CLP Laboratory: Encotec Hrs. for Review 210

Following are our findings

The data are acceptable for use with qualification

Mumtaz Fisher
3/14/94

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

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

Site: Pullman Factory (IL)

DATA QUALIFIERS

CONTRACTOR ENCOTEC

CASE 21530 (1)

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

This review covers twelve soil samples (EJZ18 through EJZ27, EQG95 and EQG97) and one water sample (EQG98) for complete organic analysis at low levels

The reviewer's narrative and data qualifiers follow

Reviewed by Al Venuto (Lockheed/ESAT)

Date 3 March 1994

Hrs Required for Review 19

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No _____ (2) CERCLIS No (IL)

Case No 21530 Site Name Location Pullman Factory

Contractor or EPA Lab SWDK Data User BTV

No of Samples 6 Date Samples or Data Received 3-3-94

Have Chain-of-Custody records been received? YES ✓ NO ___
Have traffic reports or packing lists been received? YES ✓ NO ___
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO ___
If no which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ___
No of samples claimed 6 No of samples received 6

Received by AD Marrero Date 3-3-94

Received by LSSS Dorothy M May Date 3/04/94

Review started 3/8/94 Reviewer Signature [illegible]

Total time spent on review 5.5 +1.0 by 3-15-94 Date review completed 3/10/94

Copied by Freddie Hopkins Date 3-23-94

Mailed to user by Lynette Burnett Date 3-24-94

DATA USERS
Please fill in the blanks below and return this form to Sylvia Griffin Data Mgmt Coordinator, Region V ESCRL

Data received by _____ Date _____

Data review received by _____ Date _____
Inorganic Data Complete( ) Suitable for Intended Purpose( ) ✓ if OK
Organic Data Complete ( ) Suitable for Intended Purpose( ) list
Dioxin Data Complete ( ) Suitable for Intended Purpose( ) prblms
SAS Data Complete ( ) Suitable for Intended Purpose( ) below
PROBLEMS Please indicate reasons why data are not suitable for your uses

Received by Data Mgmt Coordinator for Files Date _____

10

Instrument Detection Limit (Quarterly)

Lab Name SOUTHWEST LAB OF OK Contract C D 0040

Lab Code WOK Case No SAS No SDG No MB0025

ICP ID Number Date 01/05/24

Flame AA ID Number 15200P

Furnace AA ID Number

Analyte	Wave length (nm)	Last ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	5 50		0 2	0 2	
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comment

[illegible]

[illegible]

[illegible]

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10
Instrument Detection Limit (Quarterly)

033

Lab Name OUTFIELD STATE OF OK Contract 68 D4 0040

Lab Code SUOK Case No 21150 SAS No _ SDG No MI0097

GC/MS ID Number 17061 Date 01/04/94

Clean AA ID Number

Furnace AA ID Number

Analyte	Wave-length (nm)	Background	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.215		200	14.0	
Antimony	217.581		60	15.0	
Arsenic			10		NR
Barium	493.41		200	5.0	
Beryllium	313.042		5	1.0	
Cadmium	228.802		5	2.0	
Calcium	317.933		5000	157.0	
Chromium	267.716		10	3.0	
Cobalt	228.616		50	4.0	
Copper	324.754		25	2.0	
Iron	259.940		100	5.0	
Lead			5		NR
Magnesium	279.078		5000	106.0	
Manganese	257.610		15	2.0	
Mercury			0.2		NR
Molybdenum	281.618		40	10.0	
Nickel	231.604		5000	7.0	
Potassium			5		NR
Selenium	196.026		10	2.0	
Silver	328.068		5000	22.0	
Sodium			10		NR
Thallium	190.864		50	5.0	
Vanadium	292.402		20	0.5	
Zinc	213.856				

Comment

FORM X CLP

IL110

[illegible]

Analyte	Wavelength (nm)	Background	IDL (ug/L)		M
Aluminum	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Antimony	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Arsenic	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Barium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Beryllium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Cadmium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Calcium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chromium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Cobalt	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Copper	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Iron	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Lead	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Magnesium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Manganese	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mercury	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nickel	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Potassium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Selenium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Silver	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sodium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Thallium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Vanadium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Zinc	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Comments:

[illegible]

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DUPLICATES

EPA SAMPLE NO. 027

MF0R48D

Lab Name SOUTHWEST LAB OF OK Contract 68-D7-0040

Lab Code SWOK Case No. 9150 SAS No. SDG No. MF0R9

Matrix (soil/water) SOIL Level (low/med) LOW

% Solids for Sample 83.0 % Solids for Duplicate 84.1

Concentration Units (ug/L or mg/kg dry weight) MG/KG

Analyte	Control Limit	Sample (S)	Duplicate (D)	RPD	Q	M
Aluminum		7830.10	7927.92	1.7		
Antimony		4.1	10.0964	4.4		
Arsenic		11.164	11.1836	0.2		
Barium	46	74.0708	64.7170	15.3		F
Beryllium		0.4540	B 0.3992	B 12.2		
Cadmium		0.4677	U 0.5293	U 0.0		
Calcium		0136.0370	2144.1509	6.0		
Chromium		12.677.9	13.8743	9.1		
Cobalt	11.7	3.9478	B 1.6517	56.6		
Copper	5.8	9.4287	8.7204	1.5	*	
Iron		16336.3864	16276.5900	0.8		
Lead		6.7957	68.4551	3.6		F
Magnesium		10047.9745	11208.8570	10.9		
Manganese		3[illegible].0836	3877.7727	13.2		F
Mercury	0.1	0.1869	0.2[illegible]1	12.7		CV
Nickel	9.3	51.0096	5[illegible].6[illegible]	[illegible]		
Potassium	1108	2270.1457	1127.034	50.9		
Selenium		0.4611	U 0.5451	U		
Silver		0.4383	B 0.2[illegible]9	6.3		
Sodium		400.6[illegible]9	421.4143	B 5.1		
Thallium		1.6035	B 1.4012	U 0.0		
Vanadium	11.7	17.4115	17.7472	1.9		F
Zinc		23.3435	22.3745	6.7		
Cyanide		0.8411	U 0.8411	U		CA

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SW-846 METHOD 6010 - INORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEQK435

Lab Name: CHESTER LABS OF OH Contract: 68-W2-0040

Lab Code: CHL Case No.: 1050 SAS No.: SDG No.: MF0092

Matrix (soil/water): SOIL Level (low/med): LOW

Lab Sample ID: 4825

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	104.140		[illegible]	B	116.62	85.7		HH
Antimony	[illegible]	176.1727		11.1624		407.29	110.2		N
Barium	[illegible]	[illegible]		74.0708		467.29	99.0		N
Beryllium	[illegible]	12.3065		0.4540	B	11.68	105.8		N
Cadmium	[illegible]	[illegible]		0.4575	U	11.68	112.3		N
Calcium									NR
Chromium	75-125	74.2796		12.[illegible]		46.73	110.4		N
Cobalt	[illegible]	124.14[illegible]		9.2498	B	11[illegible].02	98.9		N
Copper	[illegible]	89.112		[illegible].9428		58.41	85.[illegible]		N
Iron									NR
Lead	75-125	175.1280		62.7957		116.82	96.2		N
Magnesium									NR
Manganese	75-125	524.4070		333.0836		116.82	163.8	N	N
Mercury	[illegible]	0.4[illegible]		0.1352		0.58	40.8	N	CV
Nickel	[illegible]	14.7414		[illegible].0094		116.82	105.0		N
Potassium									HH
Selenium	[illegible]	09.7[illegible]		0.[illegible]	U	4[illegible].29	109.1		N
Silver	[illegible]	1.0517		0.4[illegible]		11.68	99.[illegible]		N
Sodium									NR
Thallium	[illegible]	[illegible]		[illegible].1603	U	4[illegible].29	109.4		N
Vanadium	[illegible]	1[illegible].68[illegible]		17.4119		116.82	104.7		N
Zinc	[illegible]	176.7460		9[illegible].3345		116.82	88.7		N
Cyanide	[illegible]	[illegible]		0.5841	U	84	102.0		CA

Comment:

Lab Name: [illegible] Contract: [illegible]

Lab Code: [illegible] Case No.: [illegible] SAS No.: [illegible] SDG No.: [illegible]

[illegible]

[illegible]

Analyte	Initial Calib. True (ug/L)			Continuing Calibration True (ug/L)					M
Aluminum									[illegible]
Antimony									[illegible]
Arsenic									[illegible]
Barium									[illegible]
Beryllium									[illegible]
Cadmium									[illegible]
Calcium									[illegible]
Chromium									[illegible]
Cobalt									[illegible]
Copper									[illegible]
Iron									[illegible]
Lead									[illegible]
Magnesium									[illegible]
Manganese									[illegible]
Mercury									[illegible]
Nickel									[illegible]
Potassium									[illegible]
Selenium									[illegible]
Silver									[illegible]
Sodium									[illegible]
Thallium									[illegible]
Vanadium									[illegible]
Zinc									[illegible]
Cyanide	[illegible]			[illegible]		[illegible]			[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]	[illegible]	[illegible]				ration Plant	
[illegible]		[illegible]					[illegible]
[illegible]		[illegible]					[illegible]
[illegible]							[illegible]
[illegible]		[illegible]					[illegible]
[illegible]		[illegible]					[illegible]
[illegible]		[illegible]					[illegible]
[illegible]		[illegible]					[illegible]
Chromium		[illegible]					[illegible]
[illegible]		[illegible]					[illegible]
[illegible]		[illegible]					[illegible]
[illegible]		[illegible]					[illegible]
[illegible]							[illegible]
[illegible]		[illegible]					[illegible]
[illegible]		[illegible]					[illegible]
[illegible]		[illegible]	[illegible]				[illegible]
[illegible]		[illegible]					[illegible]
[illegible]		[illegible]					[illegible]
[illegible]							[illegible]
[illegible]		[illegible]					[illegible]
[illegible]		[illegible]					[illegible]
[illegible]							[illegible]
[illegible]		[illegible]					[illegible]
[illegible]		[illegible]					[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		LO 000,U	[illegible]

SDG No.: MFQQ[illegible]

Analyte	Initial Calibration True (ug/L)	Continuing Calibration True (ug/L)	Preparation Blank
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	000
[illegible]	[illegible]	[illegible]	717
[illegible]	[illegible]	[illegible]	000
[illegible]	[illegible]	[illegible]	1 000
[illegible]	[illegible]	[illegible]	2 000
[illegible]	[illegible]	[illegible]	425 758
[illegible]	[illegible]	[illegible]	3 000
[illegible]	[illegible]	[illegible]	4 000
[illegible]	[illegible]	[illegible]	000
[illegible]	[illegible]	[illegible]	5 000
[illegible]	[illegible]	[illegible]	000
[illegible]	[illegible]	[illegible]	106 000
[illegible]	[illegible]	[illegible]	000
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	10 000
[illegible]	[illegible]	[illegible]	87 000
[illegible]	[illegible]	[illegible]	4 000
[illegible]	[illegible]	[illegible]	000
[illegible]	[illegible]	[illegible]	79 427
[illegible]	[illegible]	[illegible]	5 000
[illegible]	[illegible]	[illegible]	000
[illegible]	[illegible]	[illegible]	000
[illegible]	[illegible]	[illegible]	10 000

[illegible]	Initial Value (mg/L)	Contaminant Concentration Blank (mg/L)				Percent Reduction Blank	
Aluminum	14.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Antimony	13.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Arsenic	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Barium	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Beryllium	1.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Cadmium	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chromium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Manganese	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Cobalt	4.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Copper	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Iron	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Lead	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Magnesium	106.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mercury	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nickel	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Silver	10.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Potassium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Selenium	4.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Silica	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sodium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Thallium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Titanium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Zinc	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Vanadium	10.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

[illegible]

006

FORM I - IN

Lab Name: [illegible]

Lab Code: [illegible]

Matrix (soil/water): [illegible]

Level (low/med): LOW

% Solids: [illegible]

SDG No.: [illegible]

Lab Sample ID: [illegible]

Date Received: 03/22/94

Concentration Units (ug/L or mg/kg dry weight): [illegible]

CAS No.	Analyte	Concentration	C	Q	M
[illegible]	Aluminum	[illegible]			[illegible]
[illegible]	Antimony	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	Cadmium	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	Chromium	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	Copper	[illegible]			[illegible]
[illegible]	Iron	[illegible]			[illegible]
[illegible]	Lead	[illegible]			
[illegible]	Magnesium	[illegible]			[illegible]
[illegible]	Manganese	[illegible]	[illegible]		[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	Sodium	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]

J↑ JA 5/16

J↓

J↑

Color Before: [illegible] Clarity Before: [illegible] Texture: [illegible]

Color After: [illegible] Clarity After: [illegible] Artifacts: [illegible]

Comments: [illegible]

FORM I - IN

[illegible]

Date Received: 01/22/94

[illegible] MF0095 [illegible] 12521L1

CAS No.	Analyte	Concentration	C	Q	M
[illegible]	Aluminum	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	[illegible]	17400			[illegible]
[illegible]	[illegible]	10000			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]

J↑ J↓ da 5/11

J↑

FORM I - IN

[illegible]

01/[illegible]/94

CAS No.	Analyte	Concentration	C	Q	M
[illegible]	Aluminum	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	Chromium	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	Copper	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	Lead	[illegible]			[illegible]
[illegible]	Magnesium	106			[illegible]
[illegible]	Manganese	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	Thallium	[illegible]			
[illegible]	[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]			[illegible]
	Cyanide	10			[illegible]

[illegible]

FORM I - IN

[illegible]

003

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: [illegible] Contract: [illegible]

Lab Code: [illegible] Case No.: [illegible] SAS No.: [illegible] SDG No.: [illegible]

Matrix (soil/water): WATER Lab Sample ID: [illegible]7109

Level (low/med): LOW Date Received: 01 [illegible]

% Solids: [illegible]

Concentration Units (ug/L or mg/kg dry weight): [illegible]

CAS No.	Analyte	Concentration	C	Q	M	
[illegible]	Aluminum	[illegible]			[illegible]	J↑
[illegible]	Antimony	[illegible]			[illegible]	
[illegible]	Arsenic	[illegible]			[illegible]	
[illegible]	Barium	[illegible]			[illegible]	
[illegible]	Beryllium	[illegible]				
[illegible]	Cadmium	[illegible]			[illegible]	
[illegible]	Calcium	[illegible]			[illegible]	J↑
[illegible]	Chromium	[illegible]			[illegible]	
[illegible]	Cobalt	[illegible]			[illegible]	
[illegible]	Copper	[illegible]			[illegible]	
[illegible]	Iron	[illegible]			[illegible]	J↑
[illegible]	Lead	[illegible]			[illegible]	
[illegible]	Magnesium	[illegible]			[illegible]	
[illegible]	Manganese	[illegible]			[illegible]	
[illegible]	Mercury	[illegible]			[illegible]	
[illegible]	Nickel	[illegible]			[illegible]	
[illegible]	Potassium	[illegible]			[illegible]	
[illegible]	Selenium	[illegible]			[illegible]	
[illegible]	Silver	[illegible]			[illegible]	
[illegible]	Sodium	[illegible]			[illegible]	J↑
[illegible]	Thallium	[illegible]			[illegible]	
[illegible]	Vanadium	[illegible]			[illegible]	
[illegible]	Zinc	[illegible]			[illegible]	
	Cyanide	[illegible]			[illegible]	

Color Before: [illegible] Clarity Before: [illegible] Texture: [illegible]

Color After: [illegible] Clarity After: [illegible] Artifacts: [illegible]

Comments:

FORM I - IN

[illegible]

[illegible] SAMPLE NO 002

[illegible]

[illegible]

[illegible]

[illegible] Date [illegible]

[illegible] Sampl ID [illegible]

[illegible] Rcvd 01/22/94

[illegible]

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	J↑
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	J↑
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	J↑ 5/16 [illegible]
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	J↑
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] sample ID	Lab sample ID
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

[illegible] YES

[illegible] YES

[illegible] NO

I certify that the data [illegible] in compliance with the terms and conditions of the contract, both [illegible] and for [illegible] for [illegible] the conditions detailed below [illegible] of the data contained in this hard copy data package and in the computer readable data submitted on diskette has been reviewed [illegible] the data [illegible] the [illegible] the [illegible] the [illegible] the [illegible] the [illegible] the [illegible]

Signature: [signature] Name: Jason D Ruckman

Date: 3/2/1994 Title: Inorganic Program Manager

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

Inorga Traffic Report & Chain o Custody Record

(For Inorganic CLP Analysis)

SAS No (if applicable):

Case No: 21530

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

2 Preservative (Enter in Column D)
1 HCl
2 HNO3
3 NaOH
4 H_2SO_4
5 $K_2CR_2O_7$
6 Ice only
7 Other (Specify)
N Not preserved

3 Region No: IV

Sampling Co: BVWST

5 Date Shipped: 1/25/94

Carrier: Fed Ex

7 Date Received: 1-27-94

Received by: Kulkenson

Sampler (Name): Stephen Mehal

Airbill Number: 3976745720

Laboratory Contract Number: 68-D2-0040

Unit Price: $113.00

Sampler Signature: Steph Mehal

6 Ship To: Southwest lab of Oklahoma
1700 West Albany
Broken Arrow, OK
(918) 251-2558 74012
ATTN Missy Hulsey

8 Transfer to:

Date Received:

Received by:

Contract Number:

Price:

4 Type of Activity

	Lead	Pre Remedial	Remedial	Removal
SF		X	RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		LSF	O&M	OIL
			NPLD	UST

CLP Sample Numbers (from labels)	A Enter # from Box 1	B Conc Low Med High	C Sample Type Comp / Grab	D Preservative from Box 6	E RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc only: Nitrate/Nitrite	Fluoride	High only: pH	Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp CLP Org Samp No	K Sample Condition on Receipt	L High Conc Phases (Check below): Solids	Water – MIS Liq	Non Water – Mis Liq
MEQR48	5	L	G	6	X		X					5-024437	PF SS11 001	1/24/94 1645		EJ725	intact			
MEQR49					X		X					5 024441	PF SS12 001	1/ 1/ 1 1025		EJ721				
MEQR50					X		X					5-024445	PF SS13 001	1/21/11615		EJ734				
MEQD84					X		X					5 024441	PF SS14-001	1/24/11443		EQ735				
MEQD85					X		X					5 022562	PF SS15 001	1/21/11245		EQG59				
MEQD88					X		X					5 022566	PF SS16 001	1/24/11136		EQG92				
MEQD89					X		X					5 022570	PF-SS19 001	1/21/11230		EQG13				
MEQD38					X		X					5 022571	PF SS20 001	1/21/11200		EQG14				
MEQD86	5	L	G	6	X		X					5-022578	PF-SS16-001	1/25/94/0840		EQG40				
MEQD87	5	L	G	6	X		X					5-022582	PF-SS17-001	1/25/94/0745		EQG91				

Shipment for Case complete? (Y/N): Y

Page 1 of 2

Sample used for a spike and/or duplicate: MEQR45

Additional Sampler Signatures:

Chain of Custody Seal Number: 125235 + 125236

ORIGINALS FILED VFTT CSF 21530-MEQD59.DOC 1-31-94

COPY

CHAIN OF CUSTODY RECORD

Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
Steph Mehal	1/25/94 1500				
Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
Relinquished by (Signature)	Date / Time	Received for Laboratory by (Signature)	Date / Time	Remarks	Is custody seal intact? (Y)N/none
		Kulkenson	1/27/94 0915		

Split Samples: ☐ Accepted (Signature) ☐ Declined

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EPA

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

Inorga . Traffic Report & Chain of Custody Record

(For Inorganic CLP Analysis)

SAS No (if applicable):

Case No: 21530

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

2 Preservative (Enter in Column D)
1 HCl
2 HNO_3
3 NaOH
4 H_2SO_4
5 $K_2CR_2O_7$
6 Ice only
7 Other (Specify)
N Not preserved

3 Region No: V

Sampling Co: BVWST

5 Date Shipped: 1/25/94

Carrier: Fed Ex

7 Date Received: 1/27/94 Received by: K Wilson

Sampler (Name): Stephen Mosley

Airbill Number: 3417674592 0

Laboratory Contract Number: 68-D2-0040

Unit Price: $113.00

Sampler Signature: Steph Mosley

6 Ship To: Southwest Labs of Oklahoma, 1700 West Albany, Broken Arrow, OK 74012, (918) 251-2858, ATTN Mike Hurly

8 Transfer to:

Date Received:

Received by:

Contract Number:

Price:

4 Type of Activity

Lead		Pre Remedial		Remedial		Removal	
SF				RIFS		CLEM	
PRP		PA		RD		REMA	
ST		SSI		RA I		REM	
FED		LSE	X	O&M		OIL	
				NPLD		UST	

CLP Sample Numbers (from labels)	A Enter # from Box 1	B Conc Low Med High	C Sample Type Comp / Grab	D Preservative from Box 6	E RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc only: Nitrate/Nitrite	Fluoride	High only: pH	Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp CLP Org Samp No	K Sample Condition on Receipt	L High Conc Phases (Check below): Solids	Water – MIS Liq	Non Water – Mis Liq
MEQD40	5	L	G	6	X		X					5-022586	PF-SS22 01	1/25/94/1035		EQ696	intact	-		
MEQQ94	4	L	G	2	X							5-022591	PF-RB02-201	1/25/94/1130		EQ691				
MEQQ74	4	L	G	3			X					5-022592	PF-RB02-201	1/25/94/1130		EQ694				
MEQQ95	4	L	G	2	X							5-022597	PF-EB03 201	1/25/94/1140		ESE15				
MEQQ95	4	L	G	3			X					5-022598	PF PB03 201	1/25/94/1140		ESE15				

Shipment for Case complete? (Y/N): Y

Page 1 of 2

Sample used for a spike and/or duplicate: MEQR 48

Additional Sampler Signatures:

Chain of Custody Seal Number: 125235 & 125236

CHAIN OF CUSTODY RECORD

Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
Steph Mosley	1/25/94 1500				
Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
Relinquished by (Signature)	Date / Time	Received for Laboratory by (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		K Wilson	1/27/94 0915		

Split Samples: ☐ Accepted (Signature) ☐ Declined

EPA Form 9110 1 (Rev 5 91) Replaces EPA Form (2075 6) previous edition which may be used

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21530-MEQD40.DOC
1-31-94

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

Inorga Traffic Report & Chain o. Custody Record

(For Inorganic CLP Analysis)

SAS No (if applicable):
Case No: 21530

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

2 Preservative (Enter in Column D)
1 HCl
2 HNO3
3 NaOH
4 H_2SO_4
5 $K_2CR_2O_7$
6 Ice only
7 Other (Specify)
N Not preserved

3 Region No: V
Sampling Co: BVWST
5 Date Shipped: 1/21/94
Carrier: Fed Ex
7 Date Received: 1-22-94
Received by: K Collis
Sampler (Name): Miguel A Sanchez
Airbill Number: 8630885745
Laboratory Contract Number: 68-D2-0040
Unit Price: $113.00
Sampler Signature: Miguel A Sanchez
6 Ship To: m/a 1/21/94
~~Enviotec~~
Southwest Labs of Oklahoma
1700 West Albany
Broken Arrow, OK 74012
(918) 251-2858
ATTN Misty Hamby
8 Transfer to:
Date Received:
Received by:
Contract Number:
Price:

4 Type of Activity

Lead		Pre Remedial		Remedial		Removal	
SF	X			RIFS		CLEM	
PRP		PA		RD		REMA	
ST		SSI		RA		REM	
FED		LSF		O&M		OIL	
			X	NPLD		UST	

CLP Sample Numbers (from labels)	A Enter # from Box 1	B Conc Low Med High	C Sample Type Comp / Grab	D Preservative from Box 6	E RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc only: Nitrate/Nitrite	Fluoride	High only: pH	Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp CLP Org Samp No	K Sample Condition on Receipt	L High Conc Phases (Check below): Solids	Water – MIS Liq	Non Water – Mis Liq
MEQD39	5	L	G	6	X		X					5-021489	PF-5521-001	01/19/94/1600		EQG95	intact			
MEQD49	5	L	G	6	X		X					5-021497	PF-5523-001	01/20/94/0755		EQG97	↓			
MEQQ93	4	L	G	2	X							5-059975	PF-RB01-201	01/21/94/1630		EQG98				
MEQQ93	4	L	G	3			X					5-059976	PF-RB01-201	01/21/94/1630		EQG98	↓			

Shipment for Case complete? (Y/N) N
Page 2 of 2
Sample used for a spike and/or duplicate:
Additional Sampler Signatures:
Chain of Custody Seal Number: 166995-96

CHAIN OF CUSTODY RECORD

Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
Miguel A Sanchez	01/21/94 1800				
Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
Relinquished by (Signature)	Date / Time	Received for Laboratory by (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	
		K Collis	1/22/94 0915		

Split Samples ☐ Accepted (Signature)
☐ Declined

EPA Form 9110 1 (Rev 5 91) Replaces EPA Form (2075 6) previous edition which may be used

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ORIGIN US FILE CSF 21530 1-31-94 MEQD39

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In Reference to Case No(s)
21528

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call 3/9/94

Laboratory Name SWOL

Lab Contact JASON RUCKMAN 918-251-2858

Region V

Regional Contact [illegible] / [illegible]

Call Initiated By ___ Laboratory ✓ Region

In reference to data for the following sample number(s)

MEQR 48, 49, & 50

SDG: MEQQ93

Summary of Questions/Issues Discussed

CN DATA LISTED FOR THESE SAMPLES DO NOT HAVE EPA SAMPLE ID & LAB SAMPLE IDs THAT MATCH ACCORDING TO THE ENCLOSED SAMPLE TAG SUMMARY.

Summary of Resolution

The sample names for CN MEQD48, 49 and 50 in the raw data are incorrect. The correct names should be MEXR48, 49 and 50

[illegible] 3-14-94

Signature Date

Distribution (1) Lab Copy, (2) Region Copy, (3) SMO Copy

GLOSSARY A

Data Qualifier Definitions

For the purpose of defining the flagging nomenclature utilized in this document, the following code letters and associated definitions are provided

U - The material was analyzed for, but was not detected above the level of the associated value The associated value is either the sample quantitation limit or the sample detection limit

J - The associated value is an estimated quantity

R - The data are unusable (Note The analyte may or may not be present)

UJ - The material was analyzed for, but was not detected The associated value is an estimate and may be inaccurate or imprecise

E - The reported value is estimated because of the presence of interferences An explanatory note shall be included under Comments on the Cover Page (if the problem applies to all samples) or on the specific FORM I-IN (if it is an isolated problem)

M - Duplicate injection precision not met

N - Spiked sample recovery not within control limits

S - The reported value was determined by the Method of Standard Addition (MSA)

W - Post-digestion spike for furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of the spike absorbance

+ - Correlation coefficient for the MSA is less than 0 995

* - Duplicate analysis not within control limits

Note Entering "S", "W", or "+" is mutually exclusive No combination of these qualifiers can appear in the same field for an analyte

QC EXCEPTION SUMMARY REPORT

CASE\SAS# 21530 SITE FULLMAN FACTORY MATRIX: SOIL/WATER WATER SAMPLE SPK NA

DATA SET MEQ093 LAB SWDK CONC LOW WATER SAMPLE DUP NA

LAB QC # REVIEWED BY [signature] SOIL SAMPLE SPK MEQR48

DATE 3/9/94 SOIL SAMPLE DUP MEQR48

FORM #		FORM 2	FORM 2	FORM 3	FORM 3	FORM 3	FORM 4	FORM 5	FORM 6	FORM 7	FORM 7	FORM 9	FORM 9	FORM 6	FORM 5	FIELD	FIELD	FIELD	FIELD		
ELEMENT	HOLD TIME	INITIAL CALIB	CONTIN CALIB	CALIB BLANK	PREP WATER BLANK	PREP SOIL BLANK	ICS %R	SOIL SPIKE %R	SOIL DUP RPD	LCS AQ	LCS SOIL	SERIAL DILUTION AQUEOUS	SERIAL DILUTION SOIL	AQ DUP RPD	AQ SPIKE %R	BLANK	DUP RPD	BLANK	DUP RPD	GFAA DUP	GFAA ANALYT SPIKE
ALUMINUM	OK	OK	OK	320	24.7	8305	OK			OK								757			
ANTIMONY						154			454				100								
ARSENIC					-2.77						602										
BARIUM																					
BERYLLIUM													100								
CADMIUM									200												
CALCIUM					4257	108607												528			
CHROMIUM						2674												3.3			
COBALT									266				168								
COPPER																					
IRON				57 7.5		3375												26.6			
LEAD				28		2531															
MAGNESIUM						2464															
MANGANESE								1638													
MERCURY								40.8													
NICKEL													147								
POTASSIUM						9357					2850		375					1050			
SELENIUM											1207										
SILVER				29					1063				100								
SODIUM					279.9	7944					502.2		227.4					733			
THALLIUM									200				100								
TIN													1000								
VANADIUM													26.8								
ZINC						2070															
CYANIDE																					

The preparation blank was found to contain Na (294 439 mg/kg) The Na results for MEQR48, 49 and 50 are estimated (J) due to contamination

OTHER ANALYSES

All CN data are acceptable

The matrix spike recovery for Hg (40 8%) is out of control Hg data in samples MEQR48, 49, and 50 are estimated (J) due to low bias

Samples MEQQ93, 94, and 95 are field blanks containing Na (733, 640 and 483 µg/L) Na data in samples MEQR48, 49, and 50 are affected by field contamination, but remain qualified as stated above

WATER SAMPLES (MEQQ93, 94, and 95)

All water samples are field blanks and no digestion QC audits such as duplicate and matrix spike are required

ICP ANALYSES

The preparation blank contains Al (24 87 µg/L), Ca (425 7 µg/L) and Na (279 4 µg/L) The CCB contains Fe (5 7 µg/L) Al, Ca, and Na data in samples MEQQ93, 94, and 95 and Fe in samples MEQQ93 and 94 are estimated (J) due to contamination

OTHER ANALYSES

All Hg and CN data are acceptable

Reviewed by _____ Steve Schroedl, Lockheed/ESAT
Date 3-18-94

NARRATIVE

SITE PULLMAN FACTORY CASE 21530
LABORATORY SWOK SDG MEQQ93

The laboratory's portion of case 21530 contains 3 low level water and 3 low level soil samples assayed for total metals and CN- The following narrative lists the out of control audits and their possible effects on the results

EVIDENTIAL AUDIT All forms are originals with the exception of form DC-1, the original is located with case 21530, SDG MEQD39 Most of the raw data sheets are originals, those photocopied state where the originals can be found The original ICP raw data from pages 66 to 91 and 155 to 195 are located with case 21553, SDG MCPD72 The original Hg raw data from pages 200 to 209 are with case 21530, SDG MEQD39 and the original Hg raw data from pages 212 to 216 are with case 21553, SDG MCPD72 The original CN data from pages 220 to 224 and 235 to 237 are located with case 21528, SDG MEQB80 and the original CN raw data from pages 228 to 233 are with case 21530, SDG MEQD39 The original sample tags are present The original airbill and chain of custody forms are with case 21530, SDG MEQD39 All forms are present and in the order indicated on the Form DC-2 [inventory sheet]

SOIL SAMPLES (MEQR48, 49, and 50)

ICP ANALYSES

The duplicate RPD for Cu (31 5%) was flagged by the laboratory however the duplicate difference did not exceed the technical criterion (±35%) for soil samples Cu data are acceptable

The duplicate RPDs for Sb (45 4%), Cd (200%), Co (36 6%), Ag (66 3%), and Tl (200%) were not flagged by the laboratory because the duplicate differences did not exceed the technical criterion (±2xCRDL) for soil samples Sb, Cd, Co, Ag, and Tl data are acceptable

The matrix spike recovery for Mn (163 8%) is out of control Mn data in samples MEQR48, 49, and 50 are estimated (J) due to high bias

Reviewed by B. Yu for Steve Schroedl, Lockheed/ESAT
Date 3-18-94

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

RECEIVED MAR 29 1994

DATE. 3/22/94

SUBJECT Review of Region V CLP Data
Received for Review on March 3, 1994

FROM Charles T Elly, Director (SL-10C) Dorothy M May for C T Elly
Central Regional Laboratory

TO Data User: B+V

We have reviewed the data for the following case.

SITE NAME Pullman, Factory (IL)

CASE and/or SAS NUMBER 21530 (2) SDG NUMBER. MEQQ93

Number and Type of Samples 6 - water/soil.

CLP Sample Numbers: MEQQ93 -95, MEQR48-50

CLP Laboratory SWML Hrs. for Review 55 +10

Following are our findings

Data are acceptable for use with qualifications noted in attached review

Dorothy M May

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

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

Organic Sample Collection Requirements

The sampling crew should fill out the Traffic Report and EPA Chain of Custody Record. If the sampling crew elects to use an alternative chain of custody form, cross out the bottom portion of this record and indicate that chain of custody information is recorded on an alternative form.

Water Samples	Required Volume	Container Type
Extractable Analysis (Low Level)	1 Gallon	X 4 liter Amber Glass Bottle OR 2 X 80-oz Amber Glass Bottle OR 4 X liter Amber Glass Bottles
Extractable Analysis (Medium Level)	Gallon	8-oz Wide Mouth Glass Jar
Volatile Analysis (Low or Medium Level)	0 ml	X 40-ml glass vials

All Medium and high level samples to be sealed in Metal Can for shipment

Soil/Sediment Samples	Required Volume	Container Type
Extractable Analysis (Low or Medium Level)	6 oz	1 X 8 oz Wide Mouth Glass Jar OR
	2 0 ml	2 X 4-oz Wide Mouth Glass Jars
Volatile Analysis (Low or Medium Level)		2 X 120 ml Wide Mouth Glass Vials

Soil VOA Vials under study subject to change check to ensure proper sample

HIGH CONCENTRATION SAMPLE COLLECTION REQUIREMENTS

Liquid or Solid Samples	Required Volume	Container Type
Extractable and Volatile Analysis	6 oz	X 8-oz Wide-Mouth Glass Jar

1 **Organic Sample Collection Requirements**
Please indicate sample to spike and/or duplicate
- Ship medium and high concentration samples in paint cans
  Aqueous samples require one triple volume sample per twenty for Matrix Spike/Matrix Spike Duplicate
  Oily samples must be analyzed under the Special Analytical Services (SAS) program
- Confirmatory analyses and Special Analytical Services (SAS) parameters may require extra volume for SAS consult specified SAS methods for requirements
  Additional sample volume not required for method OLC01

2 **Cooler and Sample Documentation**
- Complete all sections of the Traffic Report/Chain of Custody Form Press firmly with a ball point pen to ensure that carbon copies are legible Check the information and correct any errors
  Please remember to complete the Chain of Custody Information on the form
  Seal the two sets of laboratory Traffic Report/Chain of Custody form copies in a plastic bag Include a return address for the cooler Tape bag under cooler lid
  Overlap the lid and bottle of each sample container with custody seals
- Seal each container in a plastic bag
  Pack medium and high concentration samples in metal cans
- Cool low waters to 4 C Cooling of low soils is optional Do not cool medium or high concentration waters and soils
  Separate and surround cooler contents with vermiculite or equivalent packaging
  Seal the cooler overlapping the lid and body with custody seals
  FAX SMO a copy of the Traffic Report/Chain of Custody Form as soon as possible Send SMO the pink copy of the Traffic Report within 5 days
  In column E RAS analysis indicate number of sample bottles sent for analysis

3 **Sample Shipment Reporting**
- PHONE IN ALL SHIPMENTS IMMEDIATELY TO SMO (or to RSCC if instructed)
  Required information
  - Case (and/or SAS) Number
  - Date shipped
  - Number of samples by concentration and matrix
  - Carrier and airbill number
  - Next planned shipment

  Leave your name and a number where you can be reached
- Information for SATURDAY DELIVERIES must be phoned in by 3 00 PM (Eastern) the preceding FRIDAY
- Report any delays or changes of scope (i e changes in number of samples to be collected matrix changes etc)
- CALL IF YOU HAVE ANY QUESTIONS

USEPA Contract Laboratory Program
Sample Management Office
P O Box 818
Alexandria VA 22313
Phone (703) 557 2490
(703) 684 5678
FAX (703) 683 0378

EPA

Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria VA 22313
703 557 2490 FTS 557 2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No (if applicable):

Case No: 21530

1 Sample Description (Enter in Column A)	2 Preservative (Enter in Column D)	3 Region No: IV	Sampling Co: BUWST	5 Date Shipped: 1/25/94	Carrier: Fed Ex
1 Surface Water 2 Ground Water 3 Leachate 4 Rinsate 5 Soil/Sediment 6 Oil (High only) 7 Waste (High only) 8 Other (Specify)	1 HCl 2 HNO3 3 NaHSO4 4 H2SO4 5 Other (Specify) 6 Ice only N Not preserved	Sampler (Name): Stephen Mehay		Airbill Number: 3976743931	
		Sampler Signature: Steph Mehay		6 Ship To: Enviro-Tec 3985 Research Park Drive Ann Arbor, MI 1510 ATTN Cathy Deere	

4 Type of Activity: SF (Lead) X; PRP; ST; FED; Pre Remedial: PA; SSI; LSI X; Remedial: RIFS; RD; RA; O&M; NPLD; Removal: CLEM; REMA; REM; OIL; UST

7 Date Received: 1/26/94 Received by: Scott Deere

Laboratory Contract Number: 68-D2-0012 Unit Price: 685.00

8 Transfer to: Date Received:

Received by:

Contract Number: Price:

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc Low Med High	C Sample Type Comp / Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp CLP Inorg Samp No	K Sample Condition on Rec't	L High Conc Phases (Check below): Solids	Water Mis Liq	Non Water Mis Liq
EQ16	5	L	G	6	X	X	X		5-022553-55	PF-SS#001	1/25/94 1030		MEQ910	Ok			
EQG99	4	L	G	1	X				5-022587-88	PF-RB02-201	1/25/94/1150		MEQ994				
EQG99	4	L	G	6		X	X		5-022589-10	PF-RB02-201	1/25/94/1150		MEQ994				
ESE15	4	L	G	1	X				5-022593-94	PF-RB03-201	1/25/94/1140		MEQ995				
ESE15	4	L	G	6		X	X		5-022595-96	PF-RB03-201	1/25/94/1140		MEQ995				
EQ173	3	L	G	1	X				5-022597-600	PF-TBN-201	1/25/94/1130		—				
									First Sample: EQG96								
									Last Sample: ESE15								
										SDG: EJZ28							

Shipment for Case complete? (Y/N): Y

Page 1 of 2

Sample used for a spike and/or duplicate: ET2 26

Additional Sampler Signatures: TAM 1/26/94

Chain of Custody Seal Number: 125230-34

CHAIN OF CUSTODY RECORD

Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
Steph Mehay	1500 1/25/94				
Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
Relinquished by (Signature)	Date / Time	Received for Laboratory by (Signature): Scott Deere	Date / Time: 1/26/94 900	Remarks: Is custody seal intact? Y/N/none	

Split Samples: ☐ Accepted (Signature) ☐ Declined

EPA Form 9110 2 (Rev 5 91) Replaces EPA Form (2075 7) previous edition which may be used

DISTRIBUTION
Blue Region Copy Pink SMO Copy White Lab Copy for Return to Region Yellow Lab Copy for Return to SMO

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

Org-2

Organic Sample Collection Requirements

This form replaces both the Individual Traffic Report and EPA Chain of Custody record If the sampling team elects to use an alternative chain of custody form cross out the bottom portion of the record and indicate that chain of custody information is recorded on an alternative form

Water Samples	Required Volume	Container Type
Extractable Analysis (Low Level)	1 Gallon	4 X 4 Liter Amber Glass Bottle OR 2 X 80-oz Amber Glass Bottle OR 4 X 1-Liter Amber Glass Bottles
Extractable Analysis (Medium Level)	1 Gallon	2-oz Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level)	80 ml	2 X 40-ml Glass Vials

Soil/Sediment Samples	Required Volume	Container Type
Extractable Analysis (Low or Medium Level)	6 oz	1 X 8-oz Wide-Mouth Glass Jar OR
	240 ml	2 X 4-oz Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level)		2 X 20 ml Wide-Mouth Glass Vials*

*Soil VOA Vials under study subject to change check to ensure proper sealing

All Medium and High Level Samples to be Sealed in Metal Can for Shipment

HIGH CONCENTRATION SAMPLE COLLECTION REQUIREMENTS

Liquid or Solid Samples	Required Volume	Container Type
Extractable and Volatile Analysis	6 oz	1 8-oz Wide-Mouth Glass Jar

1 **Organic Sample Collection Requirements**
- Please indicate sample to spike and/or duplicate
  Ship medium and high concentration samples in paint cans
- Aqueous samples require one triple volume sample per twenty for Matrix Spike/Matrix Spike Duplicate
  Oily samples must be analyzed under the Special Analytical Services (SAS) program
  Confirmatory analysis and Special Analytical Services (SAS) parameters may require extra volume for SAS consult specified SAS methods for requirements
- Additional sample volume not required for method OLC01

2 **Cooler and Sample Documentation**
- Complete all sections of the Traffic Report/Chain of Custody Form Press firmly with a ball point pen to ensure that carbon copies are legible Check the information and correct any errors
- Please remember to complete the Chain of Custody information on the form
- Seal the two sets of laboratory Traffic Report/Chain of Custody form copies in a plastic bag Include a return address for the cooler Tape bag under cooler lid
- Overlap the lid and bottle of each sample container with custody seals
- Seal each container in a plastic bag
- Pack medium and high concentration samples in metal cans
- Cool low waters to 4 C Cooling of low soils is optional Do not cool medium or high concentration waters and soils
- Separate and surround cooler contents with vermiculite or equivalent packaging
- Seal the cooler overlapping the lid and body with custody seals
- FAX SMO a copy of the Traffic Report/Chain of Custody Form as soon as possible Send SMO the pink copy of the Traffic Report within 5 days
- In column E RAS analysis indicate number of sample bottles sent for analysis

3 **Sample Shipment Reporting**
- PHONE IN ALL SHIPMENTS IMMEDIATELY TO SMO (or to RSCC if instructed)
  Required information
  - Case (and/or SAS) Number
  - Date shipped
  - Number of samples by concentration and matrix
  - Carrier and airbill number
  - Next planned shipment
- Leave your name and a number where you can be reached
- Information for SATURDAY DELIVERIES must be phoned in by 3 00 PM (Eastern) the preceding FRIDAY
- Report any delays or changes of scope (i e changes in number of samples to be collected matrix changes etc)
- CALL IF YOU HAVE ANY QUESTIONS

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EPA

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

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No (if applicable):

Case No: 21530

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

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

3 Region No: IV

Sampling Co: BVWST

Sampler (Name): Stephen Mehay

Sampler Signature: [signature]

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

5 Date Shipped: 1/25/94

Carrier: Fed EX

Airbill Number: 3976745931

6 Ship To: Encotec
3785 Research Park Drive
Ann Arbor MI 48108
313/761-1389
ATTN Scott Delore

7 Date Received: 1/26/94

Received by: [signature]

Laboratory Contract Number: 68-D2-0012

Unit Price: $685.00

8 Transfer to:

Date Received:

Received by:

Contract Number:

Price:

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc Low Med High	C Sample Type Comp / Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp CLP Inorg Samp No	K Sample Condition on Rec't	L High Conc Phases (Check below): Solids	Water Mis Liq	Non Water Mis Liq
EJZ28	5	L	G	6	X	X	X		5024434-36	PF SS11-001	1/24/94 1645		MEQR48	ok			
EJZ29					X	X	X		5024438-40	PF SS12 001	1/24/94 1025		MEQR49				
EJZ30					X	X	X		5-024442 44	PF SS13 001	1/24/94 1615		MEQR50				
EQY38					X	X	X		5024446-48	PF-SS14 001	1/24/94 1443		MEQD84				
EQG89					X	X	X		5-024450/5022560-61	PF SS15-001	1/24/94 1545		MEQD85				
EQG92					X	X	X		5-022563-65	PF-SS18-001	1/24/94 1130		MEQD88				
EQG93					X	X	X		5-022567-69	PF SS19 001	1/24/94 1230		MEQD89				
EQG94					X	X	X		5022571-73	PF-SS20 001	1/24/94 1200		MEQD35				
EQG90					X	X	X		5-022575-77	PF-SS16-001	1/25/94 0840		MEQD86				
EQG91					X	X	X		5-022579-81	PF SS17-001	1/25/94 0945		MEQD87				

Shipment for Case complete? (Y/N) Y

Page 1 of 2

Sample used for a spike and/or duplicate: EJZ28

Additional Sampler Signatures: First Sample EJZ28

Chain of Custody Seal Number: 35233/34

Last Sample: EQG94

CHAIN OF CUSTODY RECORD

Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
[signature]	1/25/94 12		SDG EJZ28		TAM 1/26/94
Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
Relinquished by (Signature)	Date / Time	Received for Laboratory by (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	
		[signature]	1/26/94 9 00		

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

EPA Form 9110 2 (Rev 5 91) Replaces EPA Form (2075 7) previous edition which may be used

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Org-2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No _____ (1) CERCLIS No IL

Case No 21530 Site Name Location Pullman Factory

Contractor or EPA Lab Encotec Data User B&V

No of Samples 13 Date Samples or Data Received 2-25-94

Have Chain-of-Custody records been received? YES ✓ NO ____
Have traffic reports or packing lists been received? YES ✓ NO ____
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO ____
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ____
No of samples claimed 13 No of samples received 13

Received by Lynette Burnett Date 2-25-94

Received by LSSS Dorothy M May Date 2/25/94

Review started 4-1-94 Reviewer Signature [illegible]

Total time spent on review 19 hrs Date review completed 4-4-94

Copied by Freddie Hopkins Date 3/14/94

Mailed to user by Lynette Burnett Date 3-14-94

DATA USERS
Please fill in the blanks below and return this form to
Sylvia Griffin Data Mgmt Coordinator, Region V SSCRL

Data received by _____ Date _____

Data review received by _____ Date _____
Inorganic Data Complete( ) Suitable for Intended Purpose( ) ✓ if OK
Organic Data Complete ( ) Suitable for Intended Purpose( ) list
Dioxin Data Complete ( ) Suitable for Intended Purpose( ) prblms
SAS Data Complete ( ) Suitable for Intended Purpose( ) below
PROBLEMS Please indicate reasons why data are not suitable for your uses

Received by Data Mgmt Coordinator for Files Date _____

ASD

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EQG98

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) WATER Lab Sample ID 28436

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

% Moisture decanted (Y/N) Date Received 01/22/94

Extraction (SepF/Cont/Sonc) SEPF Date Extracted 01/24/94

Concentrated Extract Volume 10000 (uL) Date Analyzed 02/09/94

Injection Volume 1 00 (uL) Dilution Factor 1 00

GPC Cleanup (Y/N) N pH 7 0 Sulfur Cleanup (Y/N) N

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0 050	U
319-85-7	beta-BHC	0 050	U
319-86-8	delta-BHC	0 050	U
58-89-9	gamma-BHC (Lindane)	0 050	U
76-44-8	Heptachlor	0 050	U
309-00-2	Aldrin	0 050	U
1024-57-3	Heptachlor epoxide	0 050	U
959-98-8	Endosulfan I	0 050	U
60-57-1	Dieldrin	0 10	U
72-55-9	4,4'-DDE	0 10	U
72-20-8	Endrin	0 10	U
33213-65-9	Endosulfan II	0 10	U
72-54-8	4,4'-DDD	0 10	U
1031-07-8	Endosulfan sulfate	0 10	U
50-29-3	4,4'-DDT	0 10	U
72-43-5	Methoxychlor	0 50	U
53494-70-5	Endrin ketone	0 10	U
7421-93-4	Endrin aldehyde	0 10	U
5103-71-9	alpha-Chlordane	0 050	U
5103-74-2	gamma-Chlordane	0 050	U
8001-35-2	Toxaphene	5 0	U
12674-11-2	Aroclor-1016	1 0	U
11104-28-2	Aroclor-1221	2 0	U
11141-16-5	Aroclor-1232	1 0	U
53469-21-9	Aroclor-1242	1 0	U
12672-29-6	Aroclor-1248	1 0	U
11097-69-1	Aroclor-1254	1 0	U
11096-82-5	Aroclor-1260	1 0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EQG97DL

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID 28434DL

Sample wt/vol 30 0 (g/mL) G Lab File ID

% Moisture 27 decanted (Y/N) N Date Received 01/22/94

Extraction (SepF/Cont/Sonc) SONC Date Extracted 01/27/94

Concentrated Extract Volume 5000 (uL) Date Analyzed 02/10/94

Injection Volume 1 00 (uL) Dilution Factor 4 00

GPC Cleanup (Y/N) Y pH 7 3 Sulfur Cleanup (Y/N) Y

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	9 3	U J
319-85-7	beta-BHC	9 3	U
319-86-8	delta-BHC	9 3	U
58-89-9	gamma-BHC (Lindane)	9 3	U
76-44-8	Heptachlor	9 3	U
309-00-2	Aldrin	9 3	U
1024-57-3	Heptachlor epoxide	9 3	U
959-98-8	Endosulfan I	9 3	U
60-57-1	Dieldrin	18	U
72-55-9	4,4'-DDE	74	D
72-20-8	Endrin	18	U
33213-65-9	Endosulfan II	18	U
72-54-8	4,4'-DDD	78	D
1031-07-8	Endosulfan sulfate	18	U
50-29-3	4,4'-DDT	91	D
72-43-5	Methoxychlor	93	U
53494-70-5	Endrin ketone	18	U
7421-93-4	Endrin aldehyde	18	U
5103-71-9	alpha-Chlordane	9 3	U
5103-74-2	gamma-Chlordane	9 3	U
8001-35-2	Toxaphene	930	U
12674-11-2	Aroclor-1016	180	U
11104-28-2	Aroclor-1221	370	U
11141-16-5	Aroclor-1232	180	U
53469-21-9	Aroclor-1242	180	U
12672-29-6	Aroclor-1248	180	U
11097-69-1	Aroclor-1254	180	U
11096-82-5	Aroclor-1260	180	U

BIAS LOW

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EQG97

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID 28434

Sample wt/vol 30 0 (g/mL) G Lab File ID

% Moisture 27 decanted (Y/N) N Date Received 01/22/94

Extraction (SepF/Cont/Sonc) SONC Date Extracted 01/27/94

Concentrated Extract Volume 5000 (uL) Date Analyzed 02/09/94

Injection Volume 1 00 (uL) Dilution Factor 1 00

GPC Cleanup (Y/N) Y pH 7 3 Sulfur Cleanup (Y/N) Y

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2 3	U J
319-85-7	beta-BHC	2 3	U
319-86-8	delta-BHC	2 3	U
58-89-9	gamma-BHC (Lindane)	2 3	U
76-44-8	Heptachlor	2 3	U
309-00-2	Aldrin	2 3	U
1024-57-3	Heptachlor epoxide	2 3	U
959-98-8	Endosulfan I	2 3	U
60-57-1	Dieldrin	4 5	U
72-55-9	4,4'-DDE	74 DJ ~~78~~	~~E~~
72-20-8	Endrin	4 5	U
33213-65-9	Endosulfan II	4 5	U
72-54-8	4,4'-DDD	78 DJ 78	E
1031-07-8	Endosulfan sulfate	4 5	U
50-29-3	4,4'-DDT	91 DJ 98	E
72-43-5	Methoxychlor	23	U
53494-70-5	Endrin ketone	4 5	U
7421-93-4	Endrin aldehyde	4 5	U
5103-71-9	alpha-Chlordane	2 3	U
5103-74-2	gamma-Chlordane	2 3	U
8001-35-2	Toxaphene	230	U
12674-11-2	Aroclor-1016	45	U
11104-28-2	Aroclor-1221	92	U
11141-16-5	Aroclor-1232	45	U
53469-21-9	Aroclor-1242	45	U
12672-29-6	Aroclor-1248	45	U
11097-69-1	Aroclor-1254	45	U
11096-82-5	Aroclor-1260	45	U

BIAS low

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EQG95DL

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID 28433DL

Sample wt/vol 30 0 (g/mL) G Lab File ID

% Moisture 23 decanted (Y/N) N Date Received 01/22/94

Extraction (SepF/Cont/Sonc) SONC Date Extracted 01/27/94

Concentrated Extract Volume 5000 (uL) Date Analyzed 02/10/94

Injection Volume 1 00 (uL) Dilution Factor 10 0

GPC Cleanup (Y/N) Y pH 8 0 Sulfur Cleanup (Y/N) Y

SM 6/17/94

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	1 9	DJ
959-98-8	Endosulfan I	22	U
60-57-1	Dieldrin	43	U
72-55-9	4,4'-DDE	430	D
72-20-8	Endrin	43	U
33213-65-9	Endosulfan II	43	U
72-54-8	4,4'-DDD	16	DJPX
1031-07-8	Endosulfan sulfate	43	U J
50-29-3	4,4'-DDT	140	D
72-43-5	Methoxychlor	220	U
53494-70-5	Endrin ketone	43	U
7421-93-4	Endrin aldehyde	43	U
5103-71-9	alpha-Chlordane	22	U
5103-74-2	gamma-Chlordane	22	U
8001-35-2	Toxaphene	2200	U
12674-11-2	Aroclor-1016	430	U
11104-28-2	Aroclor-1221	870	U
11141-16-5	Aroclor-1232	430	U
53469-21-9	Aroclor-1242	430	U
12672-29-6	Aroclor-1248	430	U
11097-69-1	Aroclor-1254	430	U
11096-82-5	Aroclor-1260	430	U

unk

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EQG95

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID 28433

Sample wt/vol 30 0 (g/mL) G Lab File ID

% Moisture 23 decanted (Y/N) N Date Received 01/22/94

Extraction (SepF/Cont/Sonc) SONC Date Extracted 01/27/94

Concentrated Extract Volume 5000 (uL) Date Analyzed 02/09/94

Injection Volume 1 00 (uL) Dilution Factor 1 00

GPC Cleanup (Y/N) Y pH 8 0 Sulfur Cleanup (Y/N) Y

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2 2	U J
319-85-7	beta-BHC	2 2	U
319-86-8	delta-BHC	2 2	U
58-89-9	gamma-BHC (Lindane)	2 2	U
76-44-8	Heptachlor	2 2	U
309-00-2	Aldrin	2 2	U
1024-57-3	Heptachlor epoxide	2 3	
959-98-8	Endosulfan I	2 2	U
60-57-1	Dieldrin	4 3	U
72-55-9	4,4'-DDE	150	PE
72-20-8	Endrin	4 3	U
33213-65-9	Endosulfan II	4 3	U
72-54-8	4,4'-DDD	14	P
1031-07-8	Endosulfan sulfate	4 3	U
50-29-3	4,4'-DDT	150	E
72-43-5	Methoxychlor	22	U
53494-70-5	Endrin ketone	4 3	U
7421-93-4	Endrin aldehyde	4 3	U
5103-71-9	alpha-Chlordane	2 2	U
5103-74-2	gamma-Chlordane	2 2	U
8001-35-2	Toxaphene	220	U
12674-11-2	Aroclor-1016	43	U
11104-28-2	Aroclor-1221	87	U
11141-16-5	Aroclor-1232	43	U
53469-21-9	Aroclor-1242	43	U
12672-29-6	Aroclor-1248	43	U
11097-69-1	Aroclor-1254	43	U
11096-82-5	Aroclor-1260	43	U

Potential low

See 6/17/ u

USC DL result

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ27

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID 28432

Sample wt/vol 30 0 (g/mL) G Lab File ID

% Moisture 21 decanted (Y/N) N Date Received 01/22/94

Extraction (SepF/Cont/Sonc) SONC Date Extracted 01/27/94

Concentrated Extract Volume 5000 (uL) Date Analyzed 02/09/94

Injection Volume 1 00 (uL) Dilution Factor 1 00

GPC Cleanup (Y/N) Y pH 8 0 Sulfur Cleanup (Y/N) Y

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2 2	U J
319-85-7	beta-BHC	2 2	U
319-86-8	delta-BHC	2 2	U
58-89-9	gamma-BHC (Lindane)	2 2	U
76-44-8	Heptachlor	2 2	U
309-00-2	Aldrin	2 2	U
1024-57-3	Heptachlor epoxide	2 2	U
959-98-8	Endosulfan I	2 2	U
60-57-1	Dieldrin	4 2	U
72-55-9	4,4'-DDE	8 4	
72-20-8	Endrin	4 2	U
33213-65-9	Endosulfan II	4 2	U
72-54-8	4,4'-DDD	3 1	J
1031-07-8	Endosulfan sulfate	4 2	U
50-29-3	4,4'-DDT	10	
72-43-5	Methoxychlor	22	U
53494-70-5	Endrin ketone	4 2	U
7421-93-4	Endrin aldehyde	4 2	U
5103-71-9	alpha-Chlordane	2 2	U
5103-74-2	gamma-Chlordane	2 2	U
8001-35-2	Toxaphene	220	U
12674-11-2	Aroclor-1016	42	U
11104-28-2	Aroclor-1221	85	U
11141-16-5	Aroclor-1232	42	U
53469-21-9	Aroclor-1242	42	U
12672-29-6	Aroclor-1248	42	U
11097-69-1	Aroclor-1254	42	U
11096-82-5	Aroclor-1260	42	U

BIAS Low

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ26

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID 28431

Sample wt/vol 30 0 (g/mL) G Lab File ID

% Moisture 25 decanted (Y/N) N Date Received 01/22/94

Extraction (SepF/Cont/Sonc) SONC Date Extracted 01/27/94

Concentrated Extract Volume 5000 (uL) Date Analyzed 02/09/94

Injection Volume 1 00 (uL) Dilution Factor 1 00

GPC Cleanup (Y/N) Y pH 8 1 Sulfur Cleanup (Y/N) Y

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2 3	U J
319-85-7	beta-BHC	2 3	U
319-86-8	delta-BHC	2 3	U
58-89-9	gamma-BHC (Lindane)	2 3	U
76-44-8	Heptachlor	2 3	U
309-00-2	Aldrin	2 3	U
1024-57-3	Heptachlor epoxide	2 3	U
959-98-8	Endosulfan I	2 3	U
60-57-1	Dieldrin	4 4	U
72-55-9	4,4'-DDE	12	
72-20-8	Endrin	4 4	U
33213-65-9	Endosulfan II	4 4	U
72-54-8	4,4'-DDD	4 4	U
1031-07-8	Endosulfan sulfate	4 4	U
50-29-3	4,4'-DDT	15	
72-43-5	Methoxychlor	23	U
53494-70-5	Endrin ketone	4 4	U
7421-93-4	Endrin aldehyde	4 4	U
5103-71-9	alpha-Chlordane	2 3	U
5103-74-2	gamma-Chlordane	2 3	U
8001-35-2	Toxaphene	230	U
12674-11-2	Aroclor-1016	44	U
11104-28-2	Aroclor-1221	89	U
11141-16-5	Aroclor-1232	44	U
53469-21-9	Aroclor-1242	44	U
12672-29-6	Aroclor-1248	44	U
11097-69-1	Aroclor-1254	44	U
11096-82-5	Aroclor-1260	44	U

Bias low

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ25

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID 28430

Sample wt/vol 30 0 (g/mL) G Lab File ID

% Moisture 15 decanted (Y/N) N Date Received 01/22/94

Extraction (SepF/Cont/Sonc) SONC Date Extracted 01/27/94

Concentrated Extract Volume 5000 (uL) Date Analyzed 02/09/94

Injection Volume 1 00 (uL) Dilution Factor 1 00

GPC Cleanup (Y/N) Y pH 7 7 Sulfur Cleanup (Y/N) Y

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2 0	U J
319-85-7	beta-BHC	2 0	U
319-86-8	delta-BHC	2 0	U
58-89-9	gamma-BHC (Lindane)	2 0	U
76-44-8	Heptachlor	2 0	U
309-00-2	Aldrin	2 0	U
1024-57-3	Heptachlor epoxide	1 6	J
959-98-8	Endosulfan I	2 0	U
60-57-1	Dieldrin	3 9	U
72-55-9	4,4'-DDE	7 1	
72-20-8	Endrin	3 9	U
33213-65-9	Endosulfan II	3 9	U
72-54-8	4,4'-DDD	3 9	U
1031-07-8	Endosulfan sulfate	3 9	U
50-29-3	4,4'-DDT	5 4	P
72-43-5	Methoxychlor	20	U
53494-70-5	Endrin ketone	3 9	U
7421-93-4	Endrin aldehyde	3 9	U
5103-71-9	alpha-Chlordane	2 0	U
5103-74-2	gamma-Chlordane	2 0	U
8001-35-2	Toxaphene	200	U
12674-11-2	Aroclor-1016	39	U
11104-28-2	Aroclor-1221	79	U
11141-16-5	Aroclor-1232	39	U
53469-21-9	Aroclor-1242	39	U
12672-29-6	Aroclor-1248	39	U
11097-69-1	Aroclor-1254	39	U
11096-82-5	Aroclor-1260	39	U

BINP LAW

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ24

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID 28429

Sample wt/vol 30 0 (g/mL) G Lab File ID

% Moisture 21 decanted (Y/N) N Date Received 01/22/94

Extraction (SepF/Cont/Sonc) SONC Date Extracted 01/27/94

Concentrated Extract Volume 5000 (uL) Date Analyzed 02/09/94

Injection Volume 1 00 (uL) Dilution Factor 1 00

GPC Cleanup (Y/N) Y pH 8 2 Sulfur Cleanup (Y/N) Y

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2 2	U J
319-85-7	beta-BHC	2 2	U
319-86-8	delta-BHC	2 2	U
58-89-9	gamma-BHC (Lindane)	2 6	P
76-44-8	Heptachlor	2 2	U
309-00-2	Aldrin	2 2	U
1024-57-3	Heptachlor epoxide	2 2	U
959-98-8	Endosulfan I	2 2	U
60-57-1	Dieldrin	4 2	U
72-55-9	4,4'-DDE	32	
72-20-8	Endrin	4 2	U
33213-65-9	Endosulfan II	4 2	U
72-54-8	4,4'-DDD	4 2	U
1031-07-8	Endosulfan sulfate	4 2	U
50-29-3	4,4'-DDT	20	
72-43-5	Methoxychlor	22	U
53494-70-5	Endrin ketone	4 2	U
7421-93-4	Endrin aldehyde	4 2	U
5103-71-9	alpha-Chlordane	2 2	U
5103-74-2	gamma-Chlordane	2 2	U
8001-35-2	Toxaphene	220	U
12674-11-2	Aroclor-1016	42	U
11104-28-2	Aroclor-1221	85	U
11141-16-5	Aroclor-1232	42	U
53469-21-9	Aroclor-1242	42	U
12672-29-6	Aroclor-1248	42	U
11097-69-1	Aroclor-1254	42	U
11096-82-5	Aroclor-1260	42	U

BLAS low

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ23DL

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID 28428DL

Sample wt/vol 30 0 (g/mL) G Lab File ID

% Moisture 20 decanted (Y/N) N Date Received 01/22/94

Extraction (SepF/Cont/Sonc) SONC Date Extracted 01/27/94

Concentrated Extract Volume 5000 (uL) Date Analyzed 02/10/94

Injection Volume 1 00 (uL) Dilution Factor 4 00

GPC Cleanup (Y/N) Y pH 8 4 Sulfur Cleanup (Y/N) Y

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CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	8 5	U
319-85-7	beta-BHC	8 5	U
319-86-8	delta-BHC	8 5	U
58-89-9	gamma-BHC (Lindane)	1 9	DJ
76-44-8	Heptachlor	8 5	U
309-00-2	Aldrin	8 5	U
1024-57-3	Heptachlor epoxide	28	D
959-98-8	Endosulfan I	8 5	U
60-57-1	Dieldrin	25	D
72-55-9	4,4'-DDE	72	D
72-20-8	Endrin	16	U
33213-65-9	Endosulfan II	16	U
72-54-8	4,4'-DDD	16	U
1031-07-8	Endosulfan sulfate	16	U J
50-29-3	4,4'-DDT	42	D
72-43-5	Methoxychlor	85	U
53494-70-5	Endrin ketone	16	U
7421-93-4	Endrin aldehyde	16	U
5103-71-9	alpha-Chlordane	10	D
5103-74-2	gamma-Chlordane	15	D
8001-35-2	Toxaphene	850	U
12674-11-2	Aroclor-1016	160	U
11104-28-2	Aroclor-1221	340	U
11141-16-5	Aroclor-1232	160	U
53469-21-9	Aroclor-1242	160	U
12672-29-6	Aroclor-1248	160	U
11097-69-1	Aroclor-1254	160	U
11096-82-5	Aroclor-1260	160	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ23

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID 28428

Sample wt/vol 30 0 (g/mL) G Lab File ID

% Moisture 20 decanted (Y/N) N Date Received 01/22/94

Extraction (SepF/Cont/Sonc) SONC Date Extracted 01/27/94

Concentrated Extract Volume 5000 (uL) Date Analyzed 02/09/94

Injection Volume 1 00 (uL) Dilution Factor 1 00

GPC Cleanup (Y/N) Y pH 8 4 Sulfur Cleanup (Y/N) Y

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2 1	U J
319-85-7	beta-BHC	2 1	U
319-86-8	delta-BHC	2 1	U
58-89-9	gamma-BHC (Lindane)	2 3	
76-44-8	Heptachlor	2 1	U
309-00-2	Aldrin	2 1	U
1024-57-3	Heptachlor epoxide	30	
959-98-8	Endosulfan I	2 1	U
60-57-1	Dieldrin	24	
72-55-9	4,4'-DDE	~~7 4~~	~~E~~
72-20-8	Endrin	4 1	U
33213-65-9	Endosulfan II	4 1	U
72-54-8	4,4'-DDD	4 1	U
1031-07-8	Endosulfan sulfate	4 1	U
50-29-3	4,4'-DDT	46	
72-43-5	Methoxychlor	21	U
53494-70-5	Endrin ketone	4 1	U
7421-93-4	Endrin aldehyde	4 1	U
5103-71-9	alpha-Chlordane	9 6	
5103-74-2	gamma-Chlordane	14	
8001-35-2	Toxaphene	210	U
12674-11-2	Aroclor-1016	41	U
11104-28-2	Aroclor-1221	84	U
11141-16-5	Aroclor-1232	41	U
53469-21-9	Aroclor-1242	41	U
12672-29-6	Aroclor-1248	41	U
11097-69-1	Aroclor-1254	41	U
11096-82-5	Aroclor-1260	41	U

Bold low

SM 6/17/94

use DL results

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ22

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID 28427

Sample wt/vol 30 0 (g/mL) G Lab File ID

% Moisture 19 decanted (Y/N) N Date Received 01/22/94

Extraction (SepF/Cont/Sonc) SONC Date Extracted 01/27/94

Concentrated Extract Volume 5000 (uL) Date Analyzed 02/09/94

Injection Volume 1 00 (uL) Dilution Factor 1 00

GPC Cleanup (Y/N) Y pH 8 4 Sulfur Cleanup (Y/N) Y

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2 1	UJ
319-85-7	beta-BHC	2 1	U
319-86-8	delta-BHC	2 1	U
58-89-9	gamma-BHC (Lindane)	2 1	U
76-44-8	Heptachlor	2 1	U
309-00-2	Aldrin	2 1	U
1024-57-3	Heptachlor epoxide	2 1	U
959-98-8	Endosulfan I	2 1	U
60-57-1	Dieldrin	4 1	U
72-55-9	4,4'-DDE	4 3	P
72-20-8	Endrin	4 1	U
33213-65-9	Endosulfan II	4 1	U
72-54-8	4,4'-DDD	2 1	JP
1031-07-8	Endosulfan sulfate	4 1	UJ
50-29-3	4,4'-DDT	10	
72-43-5	Methoxychlor	21	U
53494-70-5	Endrin ketone	4 1	U
7421-93-4	Endrin aldehyde	4 1	U
5103-71-9	alpha-Chlordane	2 1	U
5103-74-2	gamma-Chlordane	2 1	U
8001-35-2	Toxaphene	210	U
12674-11-2	Aroclor-1016	41	U
11104-28-2	Aroclor-1221	83	U
11141-16-5	Aroclor-1232	41	U
53469-21-9	Aroclor-1242	41	U
12672-29-6	Aroclor-1248	41	U
11097-69-1	Aroclor-1254	41	U
11096-82-5	Aroclor-1260	41	U

BLAC
low

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ21

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID 28426

Sample wt/vol 30 0 (g/mL) G Lab File ID

% Moisture 18 decanted (Y/N) N Date Received 01/22/94

Extraction (SepF/Cont/Sonc) SONC Date Extracted 01/27/94

Concentrated Extract Volume 5000 (uL) Date Analyzed 02/09/94

Injection Volume 1 00 (uL) Dilution Factor 1 00

GPC Cleanup (Y/N) Y pH 8 1 Sulfur Cleanup (Y/N) Y

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2 1	UJ
319-85-7	beta-BHC	2 1	U
319-86-8	delta-BHC	2 1	U
58-89-9	gamma-BHC (Lindane)	2 1	U
76-44-8	Heptachlor	2 1	U
309-00-2	Aldrin	2 1	U
1024-57-3	Heptachlor epoxide	2 1	U
959-98-8	Endosulfan I	2 1	U
60-57-1	Dieldrin	4 0	U
72-55-9	4,4'-DDE	18	
72-20-8	Endrin	4 0	U
33213-65-9	Endosulfan II	4 0	U
72-54-8	4,4'-DDD	3 2	J
1031-07-8	Endosulfan sulfate	4 0	U
50-29-3	4,4'-DDT	14	
72-43-5	Methoxychlor	21	U
53494-70-5	Endrin ketone	4 0	U
7421-93-4	Endrin aldehyde	4 0	U
5103-71-9	alpha-Chlordane	2 1	U
5103-74-2	gamma-Chlordane	2 1	U
8001-35-2	Toxaphene	210	U
12674-11-2	Aroclor-1016	40	U
11104-28-2	Aroclor-1221	82	U
11141-16-5	Aroclor-1232	40	U
53469-21-9	Aroclor-1242	40	U
12672-29-6	Aroclor-1248	40	U
11097-69-1	Aroclor-1254	40	U
11096-82-5	Aroclor-1260	40	U

BHC low

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ20DL

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID 28425DL

Sample wt/vol 30 0 (g/mL) G Lab File ID

% Moisture 13 decanted (Y/N) N Date Received 01/22/94

Extraction (SepF/Cont/Sonc) SONC Date Extracted 01/27/94

Concentrated Extract Volume 5000 (uL) Date Analyzed 02/10/94

Injection Volume 1 00 (uL) Dilution Factor 4 00

GPC Cleanup (Y/N) Y pH 7 9 Sulfur Cleanup (Y/N) Y

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	7 8	U J
319-85-7	beta-BHC	7 8	U
319-86-8	delta-BHC	7 8	U
58-89-9	gamma-BHC (Lindane)	7 8	U
76-44-8	Heptachlor	7 8	U
309-00-2	Aldrin	7 8	U
1024-57-3	Heptachlor epoxide	7 0	DJ
959-98-8	Endosulfan I	7 8	U J
60-57-1	Dieldrin	7 1	DJ
72-55-9	4,4'-DDE	120	D J
72-20-8	Endrin	15	U
33213-65-9	Endosulfan II	15	U
72-54-8	4,4'-DDD	24	D
1031-07-8	Endosulfan sulfate	15	U
50-29-3	4,4'-DDT	49	D
72-43-5	Methoxychlor	78	U
53494-70-5	Endrin ketone	15	U
7421-93-4	Endrin aldehyde	15	U
5103-71-9	alpha-Chlordane	7 8	U
5103-74-2	gamma-Chlordane	7 8	U
8001-35-2	Toxaphene	780	U
12674-11-2	Aroclor-1016	150	U
11104-28-2	Aroclor-1221	310	U
11141-16-5	Aroclor-1232	150	U
53469-21-9	Aroclor-1242	150	U
12672-29-6	Aroclor-1248	150	U
11097-69-1	Aroclor-1254	150	U
11096-82-5	Aroclor-1260	150	U

BIAS LOW

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ20

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID 28425

Sample wt/vol 30 0 (g/mL) G Lab File ID

% Moisture 13 decanted (Y/N) N Date Received 01/22/94

Extraction (SepF/Cont/Sonc) SONC Date Extracted 01/27/94

Concentrated Extract Volume 5000 (uL) Date Analyzed 02/09/94

Injection Volume 1 00 (uL) Dilution Factor 1 00

GPC Cleanup (Y/N) Y pH 7 9 Sulfur Cleanup (Y/N) Y

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2 0	U J
319-85-7	beta-BHC	2 0	U
319-86-8	delta-BHC	2 0	U
58-89-9	gamma-BHC (Lindane)	2 0	U
76-44-8	Heptachlor	2 0	U
309-00-2	Aldrin	2 0	U
1024-57-3	Heptachlor epoxide	7 4	J
959-98-8	Endosulfan I	2 0	U J
60-57-1	Dieldrin	7 5	J
72-55-9	4,4'-DDE	120 DJ ~~97~~	~~E J~~
72-20-8	Endrin	3 8	U J
33213-65-9	Endosulfan II	3 8	U J
72-54-8	4,4'-DDD	22	J
1031-07-8	Endosulfan sulfate	3 8	U J
50-29-3	4,4'-DDT	49 DJ ~~59~~	~~E J~~
72-43-5	Methoxychlor	20	U J
53494-70-5	Endrin ketone	3 8	U
7421-93-4	Endrin aldehyde	3 8	U
5103-71-9	alpha-Chlordane	2 0	U
5103-74-2	gamma-Chlordane	2 0	U
8001-35-2	Toxaphene	200	U
12674-11-2	Aroclor-1016	38	U
11104-28-2	Aroclor-1221	77	U
11141-16-5	Aroclor-1232	38	U
53469-21-9	Aroclor-1242	38	U
12672-29-6	Aroclor-1248	38	U
11097-69-1	Aroclor-1254	38	U
11096-82-5	Aroclor-1260	38	U

BHC low

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use DL results

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ19DL

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID 28424DL

Sample wt/vol 30 0 (g/mL) G Lab File ID

% Moisture 33 decanted (Y/N) N Date Received 01/22/94

Extraction (SepF/Cont/Sonc) SONC Date Extracted 01/27/94

Concentrated Extract Volume 5000 (uL) Date Analyzed 02/10/94

Injection Volume 1 00 (uL) Dilution Factor 10 0

GPC Cleanup (Y/N) Y pH 8 0 Sulfur Cleanup (Y/N) Y

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	25	U
319-85-7	beta-BHC	25	U
319-86-8	delta-BHC	25	U
58-89-9	gamma-BHC (Lindane)	25	U
76-44-8	Heptachlor	25	U
309-00-2	Aldrin	25	U
1024-57-3	Heptachlor epoxide	8 8	DJ
959-98-8	Endosulfan I	25	U
60-57-1	Dieldrin	16	DJ
72-55-9	4,4'-DDE	340	D
72-20-8	Endrin	49	U
33213-65-9	Endosulfan II	49	U
72-54-8	4,4'-DDD	22	DJPX
1031-07-8	Endosulfan sulfate	49	U J
50-29-3	4,4'-DDT	160	D
72-43-5	Methoxychlor	250	U
53494-70-5	Endrin ketone	49	U
7421-93-4	Endrin aldehyde	49	U
5103-71-9	alpha-Chlordane	25	U
5103-74-2	gamma-Chlordane	25	U
8001-35-2	Toxaphene	2500	U
12674-11-2	Aroclor-1016	490	U
11104-28-2	Aroclor-1221	1000	U
11141-16-5	Aroclor-1232	490	U
53469-21-9	Aroclor-1242	490	U
12672-29-6	Aroclor-1248	490	U
11097-69-1	Aroclor-1254	490	U
11096-82-5	Aroclor-1260	490	U

SW 6/17/94

unk

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ19

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID 28424

Sample wt/vol 30 0 (g/mL) G Lab File ID

% Moisture 33 decanted (Y/N) N Date Received 01/22/94

Extraction (SepF/Cont/Sonc) SONC Date Extracted 01/27/94

Concentrated Extract Volume 5000 (uL) Date Analyzed 02/09/94

Injection Volume 1 00 (uL) Dilution Factor 1 00

GPC Cleanup (Y/N) Y pH 8 0 Sulfur Cleanup (Y/N) Y

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2 5	U J
319-85-7	beta-BHC	2 5	U
319-86-8	delta-BHC	2 5	U
58-89-9	gamma-BHC (Lindane)	2 5	U
76-44-8	Heptachlor	2 5	U
309-00-2	Aldrin	2 5	U
1024-57-3	Heptachlor epoxide	9 8	J
959-98-8	Endosulfan I	2 5	U J
60-57-1	Dieldrin	16	P J
72-55-9	4,4'-DDE	~~160~~	~~PE J~~
72-20-8	Endrin	4 9	U J
33213-65-9	Endosulfan II	4 9	U J
72-54-8	4,4'-DDD	19	PX J
1031-07-8	Endosulfan sulfate	4 9	U J
50-29-3	4,4'-DDT	~~180~~	~~E J~~
72-43-5	Methoxychlor	25	U
53494-70-5	Endrin ketone	4 9	U
7421-93-4	Endrin aldehyde	4 9	U
5103-71-9	alpha-Chlordane	2 5	U
5103-74-2	gamma-Chlordane	2 9	J
8001-35-2	Toxaphene	250	U J
12674-11-2	Aroclor-1016	49	U
11104-28-2	Aroclor-1221	100	U
11141-16-5	Aroclor-1232	49	U
53469-21-9	Aroclor-1242	49	U
12672-29-6	Aroclor-1248	49	U
11097-69-1	Aroclor-1254	49	U
11096-82-5	Aroclor-1260	49	U

BIAS low

use DL results for E compounds

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJZ18

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID 28423

Sample wt/vol 30 0 (g/mL) G Lab File ID

% Moisture 24 decanted (Y/N) N Date Received 01/22/94

Extraction (SepF/Cont/Sonc) SONC Date Extracted 01/27/94

Concentrated Extract Volume 5000 (uL) Date Analyzed 02/09/94

Injection Volume 1 00 (uL) Dilution Factor 1 00

GPC Cleanup (Y/N) Y pH 8 2 Sulfur Cleanup (Y/N) Y

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2 2	U J
319-85-7	beta-BHC	2 2	U
319-86-8	delta-BHC	2 2	U
58-89-9	gamma-BHC (Lindane)	2 2	U
76-44-8	Heptachlor	2 2	U
309-00-2	Aldrin	2 2	U
1024-57-3	Heptachlor epoxide	9 6	J
959-98-8	Endosulfan I	2 2	U J
60-57-1	Dieldrin	15	J
72-55-9	4,4'-DDE	20	J
72-20-8	Endrin	4 3	U J
33213-65-9	Endosulfan II	4 3	U
72-54-8	4,4'-DDD	7 2	J
1031-07-8	Endosulfan sulfate	4 3	U J
50-29-3	4,4'-DDT	23	J
72-43-5	Methoxychlor	22	U J
53494-70-5	Endrin ketone	4 3	U J
7421-93-4	Endrin aldehyde	4 3	U J
5103-71-9	alpha-Chlordane	2 5	J
5103-74-2	gamma-Chlordane	5 4	J
8001-35-2	Toxaphene	220	U J
12674-11-2	Aroclor-1016	43	U
11104-28-2	Aroclor-1221	88	U
11141-16-5	Aroclor-1232	43	U
53469-21-9	Aroclor-1242	43	U
12672-29-6	Aroclor-1248	43	U
11097-69-1	Aroclor-1254	43	U
11096-82-5	Aroclor-1260	43	U

Bad AS Low

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

PBLKL1

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID MB012794-3

Sample wt/vol 30 0 (g/mL) G Lab File ID

% Moisture decanted (Y/N) Date Received

Extraction (SepF/Cont/Sonc) SONC Date Extracted 01/27/94

Concentrated Extract Volume 5000 (uL) Date Analyzed 02/09/94

Injection Volume 1 00 (uL) Dilution Factor 1 00

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

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

BHC Lab

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

PBLKW1

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) WATER Lab Sample ID MB012494-2

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

% Moisture decanted (Y/N) Date Received

Extraction (SepF/Cont/Sonc) SEPF Date Extracted 01/24/94

Concentrated Extract Volume 10000 (uL) Date Analyzed 02/09/94

Injection Volume 1 00 (uL) Dilution Factor 1 00

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

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0 050	UJ
319-85-7	beta-BHC	0 050	U
319-86-8	delta-BHC	0 050	U
58-89-9	gamma-BHC (Lindane)	0 050	U
76-44-8	Heptachlor	0 050	U
309-00-2	Aldrin	0 050	U
1024-57-3	Heptachlor epoxide	0 050	U
959-98-8	Endosulfan I	0 050	U
60-57-1	Dieldrin	0 10	U
72-55-9	4,4'-DDE	0 10	U
72-20-8	Endrin	0 10	U
33213-65-9	Endosulfan II	0 10	U
72-54-8	4,4'-DDD	0 10	U
1031-07-8	Endosulfan sulfate	0 10	U
50-29-3	4,4'-DDT	0 10	U
72-43-5	Methoxychlor	0 50	U
53494-70-5	Endrin ketone	0 10	U
7421-93-4	Endrin aldehyde	0 10	U
5103-71-9	alpha-Chlordane	0 050	U
5103-74-2	gamma-Chlordane	0 050	U
8001-35-2	Toxaphene	5 0	U
12674-11-2	Aroclor-1016	1 0	U
11104-28-2	Aroclor-1221	2 0	U
11141-16-5	Aroclor-1232	1 0	U
53469-21-9	Aroclor-1242	1 0	U
12672-29-6	Aroclor-1248	1 0	U
11097-69-1	Aroclor-1254	1 0	U
11096-82-5	Aroclor-1260	1 0	U

da 5/16
b/A5 low

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO

PBLKL1

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Lab Sample ID MB012794-3 Lab File ID

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

Sulfur Cleanup (Y/N) Y Date Extracted 01/27/94

Date Analyzed (1) 02/09/94 Date Analyzed (2) 02/09/94

Time Analyzed (1) 1312 Time Analyzed (2) 1312

Instrument ID (1) 3400-A Instrument ID (2) 3400-B

GC Column (1) DB-1701 ID 0 32 (mm) GC Column (2) DB-17 ID 0 32 (mm)

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

	EPA SAMPLE NO	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EJZ18	28423	02/09/94	02/09/94
02	EJZ19	28424	02/09/94	02/09/94
03	EJZ19DL	28424DL	02/10/94	02/10/94
04	EJZ20	28425	02/09/94	02/09/94
05	EJZ20DL	28425DL	02/10/94	02/10/94
06	EJZ21	28426	02/09/94	02/09/94
07	EJZ22	28427	02/09/94	02/09/94
08	EJZ23	28428	02/09/94	02/09/94
09	EJZ23DL	28428DL	02/10/94	02/10/94
10	EJZ24	28429	02/09/94	02/09/94
11	EJZ25	28430	02/09/94	02/09/94
12	EJZ26	28431	02/09/94	02/09/94
13	EJZ27	28432	02/09/94	02/09/94
14	EQG95	28433	02/09/94	02/09/94
15	EQG95DL	28433DL	02/10/94	02/10/94
16	EQG97	28434	02/09/94	02/09/94
17	EQG97DL	28434DL	02/10/94	02/10/94
18	EJZ20MS	28425MS	02/09/94	02/09/94
19	EJZ20MSD	28425MSD	02/09/94	02/09/94

COMMENTS

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO

PBLKW1

Lab Name ENCOTEC Contract. 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Lab Sample ID MB012494-2 Lab File ID

Matrix (soil/water) WATER Extraction (SepF/Cont/Sonc) SEPF

Sulfur Cleanup (Y/N) N Date Extracted 01/24/94

Date Analyzed (1) 02/09/94 Date Analyzed (2) 02/09/94

Time Analyzed (1) 1213 Time Analyzed (2) 1213

Instrument ID (1) 3400-A Instrument ID (2) 3400-B

GC Column (1) DB-1701 ID 0 32 (mm) GC Column (2) DB-17 ID 0 32 (mm)

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

	EPA SAMPLE NO	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EQG98	28436	02/09/94	02/09/94

COMMENTS

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix Spike - EPA Sample No EJZ20

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC
gamma-BHC (Lindane)	19 100	0	15 1	79	46-127
Heptachlor	19 100	0	13 6	71	35-130
Aldrin	19 100	0	17 3	91	34-132
Dieldrin	38 300	7 48	37 0	77	31-134
Endrin	38 300	0	35 4	92	42-139
4,4'-DDT	38 300	59 0	95 9	96	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
gamma-BHC (Lindane)	19 100	13 9	73	8	50	46-127
Heptachlor	19 100	13 1	69	3	31	35-130
Aldrin	19 100	16 0	84	8	43	34-132
Dieldrin	38 300	33 5	68	12	38	31-134
Endrin	38 300	33 0	86	7	45	42-139
4,4'-DDT	38 300	89 2	79	19	50	23-134

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

* Values outside of QC limits

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

COMMENTS

2F
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

GC Column(1) DB-1701 ID 0 32(mm) GC Column(2) DB-17 ID 0 32(mm)

	EPA SAMPLE NO	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLKL1	58*	66	52*	50*			3
02	EJZ18	56*	67	40*	47*			3
03	EJZ19	59*	71	42*	58*			3
04	EJZ19DL	61	82	62	70			0
05	EJZ20	56*	67	44*	54*			3
06	EJZ20DL	55*	67	56*	56*			3
07	EJZ21	55*	68	44*	52*			3
08	EJZ22	55*	66	26*	27*			3
09	EJZ23	58*	68	44*	44*			3
10	EJZ23DL	58*	64	60	81			1
11	EJZ24	56*	72	37*	50*			3
12	EJZ25	56*	64	44*	81			2
13	EJZ26	54*	67	41*	61			2
14	EJZ27	54*	65	44*	52*			3
15	EQG95	54*	73	38*	52*			3
16	EQG95DL	58*	84	62	64			1
17	EQG97	56*	66	40*	52*			3
18	EQG97DL	56*	62	56*	59*			3
19	EJZ20MS	60	73	48*	56*			2
20	EJZ20MSD	52*	66	43*	54*			3

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

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

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

GC Column(1) DB-1701 ID 0 32(mm) GC Column(2) DB-17 ID 0 32(mm)

	EPA SAMPLE NO	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLKW1	66	72	56*	54*			2
02	EQG98	64	69	46*	44*			2

ADVISORY
QC LIMITS

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

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EQG98

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) WATER Lab Sample ID EQG98B

Sample wt/vol 1000 (g/mL) ML Lab File ID EQG98B

Level (low/med) LOW Date Received 01/22/94

% Moisture decanted (Y/N) Date Extracted 01/24/94

Concentrated Extract Volume 1000 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH

Number TICs found 0

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EQG98

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) WATER Lab Sample ID EQG98B

Sample wt/vol 1000 (g/mL) ML Lab File ID EQG98B

Level (low/med) LOW Date Received 01/22/94

% Moisture decanted (Y/N) Date Extracted 01/24/94

Concentrated Extract Volume 1000 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH

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

(1) - Cannot be separated from Diphenylamine

SAM 4/18/94 wrk unit

wrk

AV 3-2-94

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EQG98

Lab Name ENCOTEC Contract 68-D2-0012
Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) WATER Lab Sample ID EQG98B

Sample wt/vol 1000 (g/mL) ML Lab File ID EQG98B

Level (low/med) LOW Date Received 01/22/94

% Moisture decanted (Y/N) Date Extracted 01/24/94

Concentrated Extract Volume 1000 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH

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

Sm 01/17/00

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EQG97

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQG97BR

Sample wt/vol 30 0 (g/mL) G Lab File ID EQG97BR

Level (low/med) LOW Date Received 01/22/94

% Moisture 27 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/22/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 7 3

Number TICs found 9

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	UNKNOWN	7 15	130	J
2	UNKNOWN	7 45	110	JB
3	UNKNOWN SILOXANE	8 48	130	JB
4	UNKNOWN SILOXANE	11 42	120	JB
5	UNKNOWN	11 75	140	J
6	UNKNOWN	11 83	130	J
7	UNKNOWN	23 37	140	J
8	UNKNOWN ORGANIC ACID	27 12	210	J
9	UNKNOWN	31 08	430	J

AV
3 3-94

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EQG97

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQG97BR

Sample wt/vol 30 0 (g/mL) G Lab File ID EQG97BR

Level (low/med) LOW Date Received 01/22/94

% Moisture 27 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/22/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 7 3

SM 6/17/94

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1100	U
100-02-7	4-Nitrophenol	1100	U
132-64-9	Dibenzofuran	450	U
121-14-2	2,4-Dinitrotoluene	450	U
84-66-2	Diethylphthalate	450	U
7005-72-3	4-Chlorophenyl-phenylether	450	U
86-73-7	Fluorene	450	U
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-Methylphenol	1100	U
86-30-6	N-Nitrosodiphenylamine (1)	450	U
101-55-3	4-Bromophenyl-phenylether	450	U
118-74-1	Hexachlorobenzene	450	U
87-86-5	Pentachlorophenol	1100	U
85-01-8	Phenanthrene	80	J
120-12-7	Anthracene	76	J
86-74-8	Carbazole	450	U
84-74-2	Di-n-Butylphthalate	55	J
206-44-0	Fluoranthene	190	J
129-00-0	Pyrene	140	J
85-68-7	Butylbenzylphthalate	450	U J
91-94-1	3,3'-Dichlorobenzidine	450	U
56-55-3	Benzo(A) anthracene	90	J
218-01-9	Chrysene	130	J
117-81-7	bis(2-Ethylhexyl)Phthalate	450 ~~360~~	BJU
117-84-0	Di-n-Octylphthalate	450	U
205-99-2	Benzo(b)Fluoranthene	180	J
207-08-9	Benzo(k)Fluoranthene	450	U
50-32-8	Benzo(a)Pyrene	190	J
193-39-5	Indeno(1,2,3-cd)Pyrene	450	U
53-70-3	Dibenz(a,h)Anthracene	450	U
191-24-2	Benzo(g,h,i)Perylene	450	U

UAK 3-3-94

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EQG97

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQG97BR

Sample wt/vol 30 0 (g/mL) G Lab File ID EQG97BR

Level (low/med) LOW Date Received 01/22/94

% Moisture 27 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/22/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 7 3

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	450	U
111-44-4	bis(2-Chloroethyl)Ether	450	U
95-57-8	2-Chlorophenol	450	U
541-73-1	1,3-Dichlorobenzene	450	U
106-46-7	1,4-Dichlorobenzene	450	U
95-50-1	1,2-Dichlorobenzene	450	U
95-48-7	2-Methylphenol	450	U
108-60-1	2,2'-oxybis(1-Chloropropane)	450	U
106-44-5	4-Methylphenol	450	U
621-64-7	N-Nitroso-Di-n-Propylamine	450	U
67-72-1	Hexachloroethane	450	U
98-95-3	Nitrobenzene	450	U
78-59-1	Isophorone	450	U
88-75-5	2-Nitrophenol	450	U
105-67-9	2,4-Dimethylphenol	450	U
111-91-1	bis(2-Chloroethoxy)Methane	450	U
120-83-2	2,4-Dichlorophenol	450	U
120-82-1	1,2,4-Trichlorobenzene	450	U
91-20-3	Naphthalene	450	U
106-47-8	4-Chloroaniline	450	U
87-68-3	Hexachlorobutadiene	450	U
59-50-7	4-Chloro-3-Methylphenol	450	U
91-57-6	2-Methylnaphthalene	450	U
77-47-4	Hexachlorocyclopentadiene	450	U
88-06-2	2,4,6-Trichlorophenol	450	U
95-95-4	2,4,5-Trichlorophenol	1100	U
91-58-7	2-Chloronaphthalene	450	U
88-74-4	2-Nitroaniline	1100	U
131-11-3	Dimethylphthalate	450	U
208-96-8	Acenaphthylene	450	U
606-20-2	2,6-Dinitrotoluene	450	U
99-09-2	3-Nitroaniline	1100	U
83-32-9	Acenaphthene	450	U

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EQG95

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQG95B

Sample wt/vol 30 0 (g/mL) G Lab File ID EQG95B

Level (low/med) LOW Date Received 01/22/94

% Moisture 23 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/20/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 0

Number TICs found 20

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	UNKNOWN	6 95	310	JB
2	UNKNOWN	7 28	270	J
3	UNKNOWN	7 57	160	JB
4	UNKNOWN	11 87	110	J
5	UNKNOWN ORGANIC ACID	18 62	190	JB
6	UNKNOWN ALKANE	19 97	120	J
7	UNKNOWN	22 87	95	J
8	UNKNOWN	22 95	170	J
9	UNKNOWN POLYNUCLEAR AROMATIC	26 03	98	J
10	UNKNOWN	27 18	120	J
11	UNKNOWN ALKANE	28 05	100	J
12	UNKNOWN ALKANE	28 87	89	J
13	UNKNOWN ALKANE	29 65	180	J
14	UNKNOWN	30 38	230	J
15	UNKNOWN	30 73	210	J
16	UNKNOWN ALKNANE	31 17	590	J
17	UNKNOWN POLYNUCLEAR AROMATIC	31 58	500	J
18	UNKNOWN ALKANE	32 95	490	J
19	UNKNOWN ALKANE	35 38	110	J
20	UNKNOWN	35 82	1500	J

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EQG95

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQG95B

Sample wt/vol 30 0 (g/mL) G Lab File ID EQG95B

Level (low/med) LOW Date Received 01/22/94

% Moisture 23 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/20/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 0

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q	
51-28-5	2,4-Dinitrophenol	1000	U	
100-02-7	4-Nitrophenol	1000	U J	unk
132-64-9	Dibenzofuran	430	U	
121-14-2	2,4-Dinitrotoluene	430	U	
84-66-2	Diethylphthalate	430	U	
7005-72-3	4-Chlorophenyl-phenylether	430	U	
86-73-7	Fluorene	430	U	
100-01-6	4-Nitroaniline	1000	U	
534-52-1	4,6-Dinitro-2-Methylphenol	1000	U	
86-30-6	N-Nitrosodiphenylamine (1)	430	U	
101-55-3	4-Bromophenyl-phenylether	430	U	
118-74-1	Hexachlorobenzene	430	U	
87-86-5	Pentachlorophenol	1000	U J	unk
85-01-8	Phenanthrene	320	J	
120-12-7	Anthracene	42	J	
86-74-8	Carbazole	35	J	
84-74-2	Di-n-Butylphthalate	44	J	
206-44-0	Fluoranthene	730		
129-00-0	Pyrene	680		
85-68-7	Butylbenzylphthalate	34	J	
91-94-1	3,3'-Dichlorobenzidine	430	U	
56-55-3	Benzo(A) anthracene	480		
218-01-9	Chrysene	450		
117-81-7	bis(2-Ethylhexyl)Phthalate	630	B	or
117-84-0	Di-n-Octylphthalate	430	U	
205-99-2	Benzo(b)Fluoranthene	580		
207-08-9	Benzo(k)Fluoranthene	510	J	unk
50-32-8	Benzo(a)Pyrene	500		
193-39-5	Indeno(1,2,3-cd)Pyrene	420	J	
53-70-3	Dibenz(a,h)Anthracene	190	J	
191-24-2	Benzo(g,h,i)Perylene	460		

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EQG95

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQG95B

Sample wt/vol 30 0 (g/mL) G Lab File ID EQG95B

Level (low/med) LOW Date Received 01/22/94

% Moisture 23 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/20/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 0

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	430	U
111-44-4	bis(2-Chloroethyl)Ether	430	U
95-57-8	2-Chlorophenol	430	U
541-73-1	1,3-Dichlorobenzene	430	U
106-46-7	1,4-Dichlorobenzene	430	U
95-50-1	1,2-Dichlorobenzene	430	U
95-48-7	2-Methylphenol	430	U
108-60-1	2,2'-oxybis(1-Chloropropane)	430	U
106-44-5	4-Methylphenol	430	U
621-64-7	N-Nitroso-Di-n-Propylamine	430	U
67-72-1	Hexachloroethane	430	U
98-95-3	Nitrobenzene	430	U
78-59-1	Isophorone	430	U
88-75-5	2-Nitrophenol	430	U
105-67-9	2,4-Dimethylphenol	430	U
111-91-1	bis(2-Chloroethoxy)Methane	430	U
120-83-2	2,4-Dichlorophenol	430	U
120-82-1	1,2,4-Trichlorobenzene	430	U
91-20-3	Naphthalene	430	U
106-47-8	4-Chloroaniline	430	U
87-68-3	Hexachlorobutadiene	430	U
59-50-7	4-Chloro-3-Methylphenol	430	U
91-57-6	2-Methylnaphthalene	430	U
77-47-4	Hexachlorocyclopentadiene	430	U
88-06-2	2,4,6-Trichlorophenol	430	U
95-95-4	2,4,5-Trichlorophenol	1000	U
91-58-7	2-Chloronaphthalene	430	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethylphthalate	430	U
208-96-8	Acenaphthylene	430	U
606-20-2	2,6-Dinitrotoluene	430	U
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	430	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ27

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQZ27B

Sample wt/vol 30 0 (g/mL) G Lab File ID EQZ27B

Level (low/med) LOW Date Received 01/22/94

% Moisture 21 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/20/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 0

Number TICs found 14

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	UNKNOWN	6 93	400	JB
2	UNKNOWN	7 25	350	J
3	UNKNOWN	7 55	220	JB
4	UNKNOWN SILOXANE	8 58	170	JB
5	UNKNOWN SILOXANE	11 52	160	JB
6	UNKNOWN	11 85	130	J
7	UNKNOWN SILOXANE	14 43	100	J
8	UNKNOWN ORGANIC ACID	27 20	720	J
9	UNKNOWN ALKANE	29 63	150	J
10	UNKNOWN	30 35	120	J
11	UNKNOWN ALKANE	31 13	310	J
12	UNKNOWN POLYNUCLEAR AROMATIC	31 55	190	J
13	UNKNOWN ALKANE	32 93	300	J
14	UNKNOWN	35 80	1800	J

AV
3-3-94

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ27

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQZ27B

Sample wt/vol 30 0 (g/mL) G Lab File ID EQZ27B

Level (low/med) LOW Date Received 01/22/94

% Moisture 21 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/20/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 0

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U J
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-Methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	1000	U J
85-01-8	Phenanthrene	120	J
120-12-7	Anthracene	420	U
86-74-8	Carbazole	420	U
84-74-2	Di-n-Butylphthalate	120	J
206-44-0	Fluoranthene	280	J
129-00-0	Pyrene	280	J
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	420	U
56-55-3	Benzo(A) anthracene	240	J
218-01-9	Chrysene	220	J
117-81-7	bis(2-Ethylhexyl)Phthalate	426 ~~240~~	BJ
117-84-0	Di-n-Octylphthalate	420	U
205-99-2	Benzo(b)Fluoranthene	370	J
207-08-9	Benzo(k)Fluoranthene	420	U J
50-32-8	Benzo(a)Pyrene	190	J
193-39-5	Indeno(1,2,3-cd)Pyrene	190	J
53-70-3	Dibenz(a,h)Anthracene	96	J
191-24-2	Benzo(g,h,i)Perylene	200	J

SDM 6/17/94
mk
mk
mk
AV 3-3 94

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ27

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQZ27B

Sample wt/vol 30 0 (g/mL) G Lab File ID EQZ27B

Level (low/med) LOW Date Received 01/22/94

% Moisture 21 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/20/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 0

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	420	U
111-44-4	bis(2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	2,2'-oxybis(1-Chloropropane)	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-Propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	bis(2-Chloroethoxy)Methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	420	U
91-57-6	2-Methylnaphthalene	23	J
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	1000	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethylphthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	420	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ26

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQZ26B

Sample wt/vol 30 0 (g/mL) G Lab File ID EQZ26B

Level (low/med) LOW Date Received 01/22/94

% Moisture 25 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/20/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 1

Number TICs found 20

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	UNKNOWN	6 97	380	JBV
2	UNKNOWN	7 28	300	J
3	UNKNOWN	7 58	180	JBV
4	UNKNOWN ALKANE	10 62	170	J
5	UNKNOWN	11 88	110	J
6	UNKNOWN	14 10	120	J
7	UNKNOWN ALKANE	15 67	120	J
8	UNKNOWN	18 57	190	J
9	UNKNOWN ORGANIC ACID	18 63	200	JBV
10	UNKNOWN ALKANE	19 22	110	J
11	UNKNOWN ALKANE	19 90	180	J
12	UNKNOWN ALKANE	19 98	300	J
13	UNKNOWN	29 67	98	J
14	UNKNOWN	30 40	160	J
15	UNKNOWN	30 75	150	J
16	UNKNOWN ALKANE	31 18	220	J
17	UNKNOWN POLYNUCLEAR AROMATIC	31 58	130	J
18	UNKNOWN ALKANE	32 97	190	J
19	UNKNOWN	35 83	690	J
20	UNKNOWN	36 22	150	J

AV 3-3-14

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ26

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQZ26B

Sample wt/vol 30 0 (g/mL) G Lab File ID EQZ26B

Level (low/med) LOW Date Received 01/22/94

% Moisture 25 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/20/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 1

SM 6/17/94

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q	
51-28-5	2,4-Dinitrophenol	1100	U	
100-02-7	4-Nitrophenol	1100	U J	unk
132-64-9	Dibenzofuran	440	U	
121-14-2	2,4-Dinitrotoluene	440	U	
84-66-2	Diethylphthalate	440	U	
7005-72-3	4-Chlorophenyl-phenylether	440	U	
86-73-7	Fluorene	440	U	
100-01-6	4-Nitroaniline	1100	U	
534-52-1	4,6-Dinitro-2-Methylphenol	1100	U	
86-30-6	N-Nitrosodiphenylamine (1)	440	U	
101-55-3	4-Bromophenyl-phenylether	440	U	
118-74-1	Hexachlorobenzene	440	U	
87-86-5	Pentachlorophenol	1100	U J	unk
85-01-8	Phenanthrene	130	J	
120-12-7	Anthracene	440	U	
86-74-8	Carbazole	440	U	
84-74-2	Di-n-Butylphthalate	41	J	
206-44-0	Fluoranthene	260	J	
129-00-0	Pyrene	270	J	
85-68-7	Butylbenzylphthalate	120	J	
91-94-1	3,3'-Dichlorobenzidine	440	U	
56-55-3	Benzo(A) anthracene	160	J	
218-01-9	Chrysene	170	J	
117-81-7	bis(2-Ethylhexyl)Phthalate	590	B	pr
117-84-0	Di-n-Octylphthalate	440	U	
205-99-2	Benzo(b)Fluoranthene	260	J	
207-08-9	Benzo(k)Fluoranthene	440	U J	unk
50-32-8	Benzo(a)Pyrene	150	J	
193-39-5	Indeno(1,2,3-cd)Pyrene	130	J	
53-70-3	Dibenz(a,h)Anthracene	45	J	
191-24-2	Benzo(g,h,i)Perylene	440	U	

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ26

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQZ26B

Sample wt/vol 30 0 (g/mL) G Lab File ID EQZ26B

Level (low/med) LOW Date Received 01/22/94

% Moisture 25 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/20/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 1

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	440	U
111-44-4	bis(2-Chloroethyl)Ether	440	U
95-57-8	2-Chlorophenol	440	U
541-73-1	1,3-Dichlorobenzene	440	U
106-46-7	1,4-Dichlorobenzene	440	U
95-50-1	1,2-Dichlorobenzene	440	U
95-48-7	2-Methylphenol	440	U
108-60-1	2,2'-oxybis(1-Chloropropane)	440	U
106-44-5	4-Methylphenol	440	U
621-64-7	N-Nitroso-Di-n-Propylamine	440	U
67-72-1	Hexachloroethane	440	U
98-95-3	Nitrobenzene	440	U
78-59-1	Isophorone	440	U
88-75-5	2-Nitrophenol	440	U
105-67-9	2,4-Dimethylphenol	440	U
111-91-1	bis(2-Chloroethoxy)Methane	440	U
120-83-2	2,4-Dichlorophenol	440	U
120-82-1	1,2,4-Trichlorobenzene	440	U
91-20-3	Naphthalene	440	U
106-47-8	4-Chloroaniline	440	U
87-68-3	Hexachlorobutadiene	440	U
59-50-7	4-Chloro-3-Methylphenol	440	U
91-57-6	2-Methylnaphthalene	440	U
77-47-4	Hexachlorocyclopentadiene	440	U
88-06-2	2,4,6-Trichlorophenol	440	U
95-95-4	2,4,5-Trichlorophenol	1100	U
91-58-7	2-Chloronaphthalene	440	U
88-74-4	2-Nitroaniline	1100	U
131-11-3	Dimethylphthalate	440	U
208-96-8	Acenaphthylene	440	U
606-20-2	2,6-Dinitrotoluene	440	U
99-09-2	3-Nitroaniline	1100	U
83-32-9	Acenaphthene	440	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ25

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQZ25B

Sample wt/vol 30 0 (g/mL) G Lab File ID EQZ25B

Level (low/med) LOW Date Received 01/22/94

% Moisture 15 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/20/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 7 7

Number TICs found 16

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	UNKNOWN	6 88	240	JB
2	UNKNOWN	7 20	280	J
3	UNKNOWN	7 50	160	JB
4	UNKNOWN SILOXANE	8 53	170	JB
5	UNKNOWN	11 80	96	J
6	UNKNOWN	14 15	110	J
7	UNKNOWN ORGANIC ACID	18 55	88	JB
8	UNKNOWN	22 87	96	J
9	UNKNOWN POLYNUCLEAR AROMATIC	25 95	71	J
10	UNKNOWN ALKANE	29 58	94	J
11	UNKNOWN	30 30	150	J
12	UNKNOWN	30 67	130	J
13	UNKNOWN ALKANE	31 08	250	J
14	UNKNOWN POLYNUCLEAR AROMATIC	31 50	270	J
15	UNKNOWN ALKANE	32 88	210	J
16	UNKNOWN	35 73	710	J

AV
3-3-94

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ25

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQZ25B

Sample wt/vol 30 0 (g/mL) G Lab File ID EQZ25B

Level (low/med) LOW Date Received 01/22/94

% Moisture 15 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/20/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 7 7

SM 6/17/94

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q	
51-28-5	2,4-Dinitrophenol	940	U	
100-02-7	4-Nitrophenol	940	U J	unk
132-64-9	Dibenzofuran	390	U	
121-14-2	2,4-Dinitrotoluene	390	U	
84-66-2	Diethylphthalate	390	U	
7005-72-3	4-Chlorophenyl-phenylether	390	U	
86-73-7	Fluorene	390	U	
100-01-6	4-Nitroaniline	940	U	
534-52-1	4,6-Dinitro-2-Methylphenol	940	U	
86-30-6	N-Nitrosodiphenylamine (1)	390	U	
101-55-3	4-Bromophenyl-phenylether	390	U	
118-74-1	Hexachlorobenzene	390	U	
87-86-5	Pentachlorophenol	940	U J	unk
85-01-8	Phenanthrene	390		
120-12-7	Anthracene	59	J	
86-74-8	Carbazole	51	J	
84-74-2	Di-n-Butylphthalate	390	U	
206-44-0	Fluoranthene	790		
129-00-0	Pyrene	630		
85-68-7	Butylbenzylphthalate	390	U	
91-94-1	3,3'-Dichlorobenzidine	390	U	
56-55-3	Benzo(A) anthracene	360	J	A1
218-01-9	Chrysene	340	J	
117-81-7	bis(2-Ethylhexyl)Phthalate	310 ~~110~~	BJU	3 3 10
117-84-0	Di-n-Octylphthalate	390	U	
205-99-2	Benzo(b)Fluoranthene	490		
207-08-9	Benzo(k)Fluoranthene	390	U J	unk
50-32-8	Benzo(a)Pyrene	250	J	
193-39-5	Indeno(1,2,3-cd)Pyrene	240	J	
53-70-3	Dibenz(a,h)Anthracene	100	J	
191-24-2	Benzo(g,h,i)Perylene	230	J	

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 3/90

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ25

Lab Name ENCOTEC Contract 68-D2-0012
Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQZ25B

Sample wt/vol 30 0 (g/mL) G Lab File ID EQZ25B

Level (low/med) LOW Date Received 01/22/94

% Moisture 15 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/20/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 7 7

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	2,2'-oxybis(1-Chloropropane)	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-Di-n-Propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
111-91-1	bis(2-Chloroethoxy)Methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	21	J
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	940	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	940	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U
99-09-2	3-Nitroaniline	940	U
83-32-9	Acenaphthene	390	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ24

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQZ24B

Sample wt/vol 30 0 (g/mL) G Lab File ID EQZ24B

Level (low/med) LOW Date Received 01/22/94

% Moisture 21 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/20/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 2

Number TICs found 20

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	UNKNOWN	6 95	490	JB
2	UNKNOWN	7 27	370	J
3	UNKNOWN	7 57	210	JB
4	UNKNOWN	11 85	130	J
5	UNKNOWN ALKANE	19 95	110	J
6	UNKNOWN POLYNUCLEAR AROMATIC	22 93	120	J
7	UNKNOWN POLYNUCLEAR AROMATIC	26 00	130	J
8	UNKNOWN	28 05	110	J
9	UNKNOWN	28 87	93	J
10	UNKNOWN POLYNUCLEAR AROMATIC	29 32	95	J
11	UNKNOWN ALKANE	29 65	210	J
12	UNKNOWN	30 37	180	J
13	UNKNOWN ALKANE	31 15	550	J
14	UNKNOWN	31 42	330	J
15	UNKNOWN POLYNUCLEAR AROMATIC	31 57	640	J
16	UNKNOWN	32 48	97	J
17	UNKNOWN ALKANE	32 95	420	J
18	UNKNOWN	33 48	190	J
19	UNKNOWN	35 83	3600	J
20	UNKNOWN	37 03	260	J

AV 3-3-94

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ24

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQZ24B

Sample wt/vol 30 0 (g/mL) G Lab File ID EQZ24B

Level (low/med) LOW Date Received 01/22/94

% Moisture 21 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/20/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 2

SMM 6/17/94

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q	
51-28-5	2,4-Dinitrophenol	1000	U	
100-02-7	4-Nitrophenol	1000	U J	unk
132-64-9	Dibenzofuran	420	U	
121-14-2	2,4-Dinitrotoluene	420	U	
84-66-2	Diethylphthalate	420	U	
7005-72-3	4-Chlorophenyl-phenylether	420	U	
86-73-7	Fluorene	420	U	
100-01-6	4-Nitroaniline	1000	U	
534-52-1	4,6-Dinitro-2-Methylphenol	1000	U	
86-30-6	N-Nitrosodiphenylamine (1)	420	U	
101-55-3	4-Bromophenyl-phenylether	420	U	
118-74-1	Hexachlorobenzene	420	U	
87-86-5	Pentachlorophenol	1000	U J	unk
85-01-8	Phenanthrene	300	J	
120-12-7	Anthracene	420	U	
86-74-8	Carbazole	420	U	
84-74-2	Di-n-Butylphthalate	240	J	
206-44-0	Fluoranthene	630		
129-00-0	Pyrene	710		
85-68-7	Butylbenzylphthalate	97	J	
91-94-1	3,3'-Dichlorobenzidine	420	U	
56-55-3	Benzo(A) anthracene	570		
218-01-9	Chrysene	540		
117-81-7	bis(2-Ethylhexyl)Phthalate	420 ~~160~~	BJ U	All
117-84-0	Di-n-Octylphthalate	420	U	
205-99-2	Benzo(b)Fluoranthene	750		3 3-94
207-08-9	Benzo(k)Fluoranthene	430	J	unk
50-32-8	Benzo(a)Pyrene	550		
193-39-5	Indeno(1,2,3-cd)Pyrene	460		
53-70-3	Dibenz(a,h)Anthracene	180	J	
191-24-2	Benzo(g,h,i)Perylene	580		

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ24

Lab Name ENCOTEC Contract 68-D2-0012
Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQZ24B

Sample wt/vol 30 0 (g/mL) G Lab File ID EQZ24B

Level (low/med) LOW Date Received 01/22/94

% Moisture 21 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/20/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 2

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	420	U
111-44-4	bis(2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	2,2'-oxybis(1-Chloropropane)	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-Propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	bis(2-Chloroethoxy)Methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	28	J
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	420	U
91-57-6	2-Methylnaphthalene	40	J
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	1000	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethylphthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	420	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ23DL

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ23BR

Sample wt/vol 30 0 (g/mL) G Lab File ID EJZ23BR

Level (low/med) LOW Date Received 01/22/94

% Moisture 20 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 3 0

GPC Cleanup (Y/N) Y pH 8 4

Number TICs found 7

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	UNKNOWN	6 92	320	JBV
2	UNKNOWN	30 70	590	J
3	UNKNOWN ALKANE	31 13	380	J
4	UNKNOWN POLYNUCLEAR AROMATIC	31 53	480	J
5	UNKNOWN ALKANE	32 90	390	J
6	UNKNOWN	35 73	1600	J
7	UNKNOWN	36 12	420	J

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ23DL

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ23BR

Sample wt/vol 30 0 (g/mL) G Lab File ID EJZ23BR

Level (low/med) LOW Date Received 01/22/94

% Moisture 20 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 3 0

GPC Cleanup (Y/N) Y pH 8 4

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	3000	U J
100-02-7	4-Nitrophenol	3000	U J
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	3000	U
534-52-1	4,6-Dinitro-2-Methylphenol	3000	U
86-30-6	N-Nitrosodiphenylamine (1)	1200	U
101-55-3	4-Bromophenyl-phenylether	1200	U
118-74-1	Hexachlorobenzene	1200	U
87-86-5	Pentachlorophenol	3000	U J
85-01-8	Phenanthrene	170	DJ
120-12-7	Anthracene	1200	U
86-74-8	Carbazole	1200	U
84-74-2	Di-n-Butylphthalate	1200	U
206-44-0	Fluoranthene	380	DJ
129-00-0	Pyrene	450	DJ
85-68-7	Butylbenzylphthalate	1200	U
91-94-1	3,3'-Dichlorobenzidine	1200	U
56-55-3	Benzo(A) anthracene	260	DJ
218-01-9	Chrysene	350	DJ
117-81-7	bis(2-Ethylhexyl)Phthalate	8900	BD
117-84-0	Di-n-Octylphthalate	1200	U
205-99-2	Benzo(b)Fluoranthene	550	DJ
207-08-9	Benzo(k)Fluoranthene	1200	U
50-32-8	Benzo(a)Pyrene	320	DJ
193-39-5	Indeno(1,2,3-cd)Pyrene	230	DJ
53-70-3	Dibenz(a,h)Anthracene	80	DJ
191-24-2	Benzo(g,h,i)Perylene	270	DJ

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ23DL

Lab Name ENCOTEC Contract 68-D2-0012
Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ23BR

Sample wt/vol 30 0 (g/mL) G Lab File ID EJZ23BR

Level (low/med) LOW Date Received 01/22/94

% Moisture 20 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 3 0

GPC Cleanup (Y/N) Y pH 8 4

Sam 6/17/94

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	1200	U	
106-46-7	1,4-Dichlorobenzene	1200	U	
95-50-1	1,2-Dichlorobenzene	1200	U	
95-48-7	2-Methylphenol	1200	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	1200	U J	mk
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	
111-91-1	bis(2-Chloroethoxy)Methane	1200	U	
120-83-2	2,4-Dichlorophenol	1200	U	
120-82-1	1,2,4-Trichlorobenzene	1200	U	
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 J	mk
88-06-2	2,4,6-Trichlorophenol	1200	U	
95-95-4	2,4,5-Trichlorophenol	3000	U	
91-58-7	2-Chloronaphthalene	1200	U	
88-74-4	2-Nitroaniline	3000	U	
131-11-3	Dimethylphthalate	1200	U	
208-96-8	Acenaphthylene	1200	U	
606-20-2	2,6-Dinitrotoluene	1200	U	
99-09-2	3-Nitroaniline	3000	U	
83-32-9	Acenaphthene	1200	U	

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ23

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQZ23B

Sample wt/vol 30 0 (g/mL) G Lab File ID EQZ23B

Level (low/med) LOW Date Received 01/22/94

% Moisture 20 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/20/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 4

Number TICs found 15

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	UNKNOWN	6 93	490	JBV
2	UNKNOWN	7 25	300	J
3	UNKNOWN	7 55	220	JBV
4	UNKNOWN SILOXANE	8 58	92	JBV
5	UNKNOWN	11 85	110	J
6	UNKNOWN ALKANE	29 63	170	J
7	UNKNOWN	30 35	96	J
8	UNKNOWN	30 72	96	J
9	UNKNOWN ALKANE	31 13	390	J
10	UNKNOWN	31 40	90	J
11	UNKNOWN POLYNUCLEAR AROMATIC	31 55	320	J
12	UNKNOWN ALKANE	32 93	450	J
13	UNKNOWN ALKANE	35 35	110	J
14	UNKNOWN	35 78	1300	J
15	UNKNOWN	36 17	300	J

AV 3-4

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ23

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQZ23B

Sample wt/vol 30 0 (g/mL) G Lab File ID EQZ23B

Level (low/med) LOW Date Received 01/22/94

% Moisture 20 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/20/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 4

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-Methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	180	J
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-Butylphthalate	410	U
206-44-0	Fluoranthene	410	J
129-00-0	Pyrene	410	J
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	410	U
56-55-3	Benzo(A) anthracene	290	J
218-01-9	Chrysene	280	J
117-81-7	bis(2-Ethylhexyl)Phthalate	6200	E B
117-84-0	Di-n-Octylphthalate	410	U
205-99-2	Benzo(b)Fluoranthene	360	J
207-08-9	Benzo(k)Fluoranthene	210	J
50-32-8	Benzo(a)Pyrene	260	J
193-39-5	Indeno(1,2,3-cd)Pyrene	240	J
53-70-3	Dibenz(a,h)Anthracene	120	J
191-24-2	Benzo(g,h,i)Perylene	280	J

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 3/90

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ23

Lab Name ENCOTEC Contract 68-D2-0012
Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQZ23B

Sample wt/vol 30 0 (g/mL) G Lab File ID EQZ23B

Level (low/med) LOW Date Received 01/22/94

% Moisture 20 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/20/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 4

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ22

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ22B

Sample wt/vol 30 0 (g/mL) G Lab File ID EJZ22B

Level (low/med) LOW Date Received 01/22/94

% Moisture 19 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 4

Number TICs found 20

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	UNKNOWN	6 85	350	JB
2	UNKNOWN	7 17	240	J
3	UNKNOWN	7 47	230	JB
4	UNKNOWN ALKANE	10 50	280	J
5	UNKNOWN	18 45	140	J
6	UNKNOWN ALKANE	19 10	150	J
7	UNKNOWN ALKANE	19 85	400	J
8	UNKNOWN ALKANE	22 18	140	J
9	UNKNOWN ALKANE	24 30	120	J
10	UNKNOWN ALKANE	25 28	150	J
11	UNKNOWN ALKANE	26 20	120	J
12	UNKNOWN	27 95	220	J
13	UNKNOWN	29 55	150	J
14	UNKNOWN	29 80	170	J
15	UNKNOWN	30 03	200	J
16	UNKNOWN	30 30	190	J
17	UNKNOWN	30 63	220	J
18	UNKNOWN ALKANE	31 05	380	J
19	UNKNOWN	31 32	280	J
20	UNKNOWN	32 83	370	J

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ22

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ22B

Sample wt/vol 30 0 (g/mL) G Lab File ID EJZ22B

Level (low/med) LOW Date Received 01/22/94

% Moisture 19 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 4

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	990	U J
100-02-7	4-Nitrophenol	990	U J
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	990	U
534-52-1	4,6-Dinitro-2-Methylphenol	990	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	990	U J
85-01-8	Phenanthrene	130	J
120-12-7	Anthracene	24	J
86-74-8	Carbazole	410	U
84-74-2	Di-n-Butylphthalate	31	J
206-44-0	Fluoranthene	240	J
129-00-0	Pyrene	330	J
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	410	U
56-55-3	Benzo(A) anthracene	160	J
218-01-9	Chrysene	190	J
117-81-7	bis(2-Ethylhexyl)Phthalate	416 ~~310~~	BJ
117-84-0	Di-n-Octylphthalate	410	U
205-99-2	Benzo(b)Fluoranthene	180	J
207-08-9	Benzo(k)Fluoranthene	150	J
50-32-8	Benzo(a)Pyrene	140	J
193-39-5	Indeno(1,2,3-cd)Pyrene	110	J
53-70-3	Dibenz(a,h)Anthracene	40	J
191-24-2	Benzo(g,h,i)Perylene	130	J

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ22

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ22B

Sample wt/vol 30 0 (g/mL) G Lab File ID EJZ22B

Level (low/med) LOW Date Received 01/22/94

% Moisture 19 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 4

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	410	U	
111-44-4	bis(2-Chloroethyl)Ether	410	U	
95-57-8	2-Chlorophenol	410	U	
541-73-1	1,3-Dichlorobenzene	410	U	
106-46-7	1,4-Dichlorobenzene	410	U	
95-50-1	1,2-Dichlorobenzene	410	U	
95-48-7	2-Methylphenol	410	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	410	U J	mk
106-44-5	4-Methylphenol	410	U	
621-64-7	N-Nitroso-Di-n-Propylamine	410	U	
67-72-1	Hexachloroethane	410	U	
98-95-3	Nitrobenzene	410	U	
78-59-1	Isophorone	410	U	
88-75-5	2-Nitrophenol	410	U	
105-67-9	2,4-Dimethylphenol	410	U	
111-91-1	bis(2-Chloroethoxy)Methane	410	U	
120-83-2	2,4-Dichlorophenol	410	U	
120-82-1	1,2,4-Trichlorobenzene	410	U	
91-20-3	Naphthalene	410	U	
106-47-8	4-Chloroaniline	410	U	
87-68-3	Hexachlorobutadiene	410	U	
59-50-7	4-Chloro-3-Methylphenol	410	U	
91-57-6	2-Methylnaphthalene	410	U	
77-47-4	Hexachlorocyclopentadiene	410	U J	mk
88-06-2	2,4,6-Trichlorophenol	410	U	
95-95-4	2,4,5-Trichlorophenol	990	U	
91-58-7	2-Chloronaphthalene	410	U	
88-74-4	2-Nitroaniline	990	U	
131-11-3	Dimethylphthalate	410	U	
208-96-8	Acenaphthylene	410	U	
606-20-2	2,6-Dinitrotoluene	410	U	
99-09-2	3-Nitroaniline	990	U	
83-32-9	Acenaphthene	410	U	

Sm 6/17/94

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ21

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ21B

Sample wt/vol 30 0 (g/mL) G Lab File ID EJZ21B

Level (low/med) LOW Date Received 01/22/94

% Moisture 18 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 1

Number TICs found 16

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	UNKNOWN	6 77	240	JB
2	UNKNOWN	7 08	250	J
3	UNKNOWN	7 38	140	JB
4	UNKNOWN SILOXANE	8 42	220	JB
5	UNKNOWN SILOXANE	11 35	260	JB
6	UNKNOWN	11 68	110	J
7	UNKNOWN SILOXANE	14 27	140	J
8	UNKNOWN ALKANE	29 47	100	J
9	UNKNOWN	30 18	100	J
10	UNKNOWN	30 55	350	J
11	UNKNOWN ALKANE	30 97	380	J
12	UNKNOWN POLYNUCLEAR AROMATIC	31 38	210	J
13	UNKNOWN ALKANE	32 75	450	J
14	UNKNOWN ALKANE	35 15	120	J
15	UNKNOWN	35 60	980	J
16	UNKNOWN	35 98	250	J

AV 1-3-94

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ21

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ21B

Sample wt/vol 30 0 (g/mL) G Lab File ID EJZ21B

Level (low/med) LOW Date Received 01/22/94

% Moisture 18 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 1

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	980	U J
100-02-7	4-Nitrophenol	980	U J
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	980	U
534-52-1	4,6-Dinitro-2-Methylphenol	980	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	980	U J
85-01-8	Phenanthrene	65	J
120-12-7	Anthracene	400	U
86-74-8	Carbazole	400	U
84-74-2	Di-n-Butylphthalate	42	J
206-44-0	Fluoranthene	120	J
129-00-0	Pyrene	170	J
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	400	U
56-55-3	Benzo(A) anthracene	83	J
218-01-9	Chrysene	92	J
117-81-7	bis(2-Ethylhexyl)Phthalate	400	BJ
117-84-0	Di-n-Octylphthalate	400	U
205-99-2	Benzo(b)Fluoranthene	98	J
207-08-9	Benzo(k)Fluoranthene	73	J
50-32-8	Benzo(a)Pyrene	71	J
193-39-5	Indeno(1,2,3-cd)Pyrene	54	J
53-70-3	Dibenz(a,h)Anthracene	400	U
191-24-2	Benzo(g,h,i)Perylene	65	J

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ21

Lab Name ENCOTEC Contract 68-D2-0012
Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ21B

Sample wt/vol 30 0 (g/mL) G Lab File ID EJZ21B

Level (low/med) LOW Date Received 01/22/94

% Moisture 18 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 1

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	400	U	
111-44-4	bis(2-Chloroethyl)Ether	400	U	
95-57-8	2-Chlorophenol	400	U	
541-73-1	1,3-Dichlorobenzene	400	U	
106-46-7	1,4-Dichlorobenzene	400	U	
95-50-1	1,2-Dichlorobenzene	400	U	
95-48-7	2-Methylphenol	400	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	400	U J	unk
106-44-5	4-Methylphenol	400	U	
621-64-7	N-Nitroso-Di-n-Propylamine	400	U	
67-72-1	Hexachloroethane	400	U	
98-95-3	Nitrobenzene	400	U	
78-59-1	Isophorone	400	U	
88-75-5	2-Nitrophenol	400	U	
105-67-9	2,4-Dimethylphenol	400	U	
111-91-1	bis(2-Chloroethoxy)Methane	400	U	
120-83-2	2,4-Dichlorophenol	400	U	
120-82-1	1,2,4-Trichlorobenzene	400	U	
91-20-3	Naphthalene	400	U	
106-47-8	4-Chloroaniline	400	U	
87-68-3	Hexachlorobutadiene	400	U	
59-50-7	4-Chloro-3-Methylphenol	400	U	
91-57-6	2-Methylnaphthalene	400	U	
77-47-4	Hexachlorocyclopentadiene	400	U J	unk
88-06-2	2,4,6-Trichlorophenol	400	U	
95-95-4	2,4,5-Trichlorophenol	980	U	
91-58-7	2-Chloronaphthalene	400	U	
88-74-4	2-Nitroaniline	980	U	
131-11-3	Dimethylphthalate	400	U	
208-96-8	Acenaphthylene	400	U	
606-20-2	2,6-Dinitrotoluene	400	U	
99-09-2	3-Nitroaniline	980	U	
83-32-9	Acenaphthene	400	U	

SM 6/17/94

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ20

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ20B

Sample wt/vol 30 0 (g/mL) G Lab File ID EJZ20B

Level (low/med) LOW Date Received 01/22/94

% Moisture 13 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 7 9

Number TICs found 14

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	UNKNOWN	6 83	200	JB V
2	UNKNOWN	7 17	120	J
3	UNKNOWN	7 47	98	JB V
4	UNKNOWN SILOXANE	8 50	120	JB V
5	UNKNOWN SILOXANE	11 43	160	JB V
6	UNKNOWN	11 75	79	J
7	UNKNOWN SILOXANE	14 33	88	J
8	UNKNOWN ALKANE	19 85	81	J
9	UNKNOWN	30 27	160	J
10	UNKNOWN ALKANE	31 05	250	J
11	UNKNOWN POLYNUCLEAR AROMATIC	31 47	180	J
12	UNKNOWN ALKANE	32 83	270	J
13	UNKNOWN	35 67	970	J
14	UNKNOWN	36 05	360	J

AV 3-3 47

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ20

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ20B

Sample wt/vol 30 0 (g/mL) G Lab File ID EJZ20B

Level (low/med) LOW Date Received 01/22/94

% Moisture 13 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 7 9

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q	
51-28-5	2,4-Dinitrophenol	920	U J	unk
100-02-7	4-Nitrophenol	920	U J	unk
132-64-9	Dibenzofuran	380	U	
121-14-2	2,4-Dinitrotoluene	380	U	
84-66-2	Diethylphthalate	380	U	
7005-72-3	4-Chlorophenyl-phenylether	380	U	
86-73-7	Fluorene	380	U	
100-01-6	4-Nitroaniline	920	U	
534-52-1	4,6-Dinitro-2-Methylphenol	920	U	
86-30-6	N-Nitrosodiphenylamine (1)	380	U	
101-55-3	4-Bromophenyl-phenylether	380	U	
118-74-1	Hexachlorobenzene	380	U	
87-86-5	Pentachlorophenol	920	U J	unk
85-01-8	Phenanthrene	76	J	
120-12-7	Anthracene	380	U	
86-74-8	Carbazole	380	U	
84-74-2	Di-n-Butylphthalate	240	J	
206-44-0	Fluoranthene	150	J	
129-00-0	Pyrene	200	J	
85-68-7	Butylbenzylphthalate	140	J	
91-94-1	3,3'-Dichlorobenzidine	380	U	
56-55-3	Benzo(A) anthracene	98	J	
218-01-9	Chrysene	140	J	
117-81-7	bis(2-Ethylhexyl)Phthalate	350 ~~180~~	BJ	AV
117-84-0	Di-n-Octylphthalate	380	U	
205-99-2	Benzo(b)Fluoranthene	180	J	33-4
207-08-9	Benzo(k)Fluoranthene	380	U	
50-32-8	Benzo(a)Pyrene	92	J	
193-39-5	Indeno(1,2,3-cd)Pyrene	78	J	
53-70-3	Dibenz(a,h)Anthracene	28	J	
191-24-2	Benzo(g,h,i)Perylene	87	J	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ20

Lab Name ENCOTEC Contract 68-D2-0012
Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ20B

Sample wt/vol 30 0 (g/mL) G Lab File ID EJZ20B

Level (low/med) LOW Date Received 01/22/94

% Moisture 13 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 7 9

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	380	U	
111-44-4	bis(2-Chloroethyl)Ether	380	U	
95-57-8	2-Chlorophenol	380	U	
541-73-1	1,3-Dichlorobenzene	380	U	
106-46-7	1,4-Dichlorobenzene	380	U	
95-50-1	1,2-Dichlorobenzene	380	U	
95-48-7	2-Methylphenol	380	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	380	U J	unk
106-44-5	4-Methylphenol	380	U	
621-64-7	N-Nitroso-Di-n-Propylamine	380	U	
67-72-1	Hexachloroethane	380	U	
98-95-3	Nitrobenzene	380	U	
78-59-1	Isophorone	380	U	
88-75-5	2-Nitrophenol	380	U	
105-67-9	2,4-Dimethylphenol	380	U	
111-91-1	bis(2-Chloroethoxy)Methane	380	U	
120-83-2	2,4-Dichlorophenol	380	U	
120-82-1	1,2,4-Trichlorobenzene	380	U	
91-20-3	Naphthalene	380	U	
106-47-8	4-Chloroaniline	380	U	
87-68-3	Hexachlorobutadiene	380	U	
59-50-7	4-Chloro-3-Methylphenol	380	U	
91-57-6	2-Methylnaphthalene	380	U	
77-47-4	Hexachlorocyclopentadiene	380	U J	unk
88-06-2	2,4,6-Trichlorophenol	380	U	
95-95-4	2,4,5-Trichlorophenol	920	U	
91-58-7	2-Chloronaphthalene	380	U	
88-74-4	2-Nitroaniline	920	U	
131-11-3	Dimethylphthalate	380	U	
208-96-8	Acenaphthylene	380	U	
606-20-2	2,6-Dinitrotoluene	380	U	
99-09-2	3-Nitroaniline	920	U	
83-32-9	Acenaphthene	380	U	

SM 6/17/94

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ19

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ19B

Sample wt/vol 30 0 (g/mL) G Lab File ID EJZ19B

Level (low/med) LOW Date Received 01/22/94

% Moisture 33 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 0

Number TICs found 20

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	UNKNOWN	6 75	460	JB
2	UNKNOWN	7 07	340	J
3	UNKNOWN	7 37	120	JB
4	UNKNOWN SILOXANE	8 42	300	JB
5	UNKNOWN SILOXANE	11 35	290	JB
6	UNKNOWN	11 67	170	J
7	UNKNOWN SILOXANE	14 27	170	J
8	UNKNOWN ORGANIC ACID	18 42	480	JB
9	UNKNOWN	26 97	190	J
10	UNKNOWN	29 00	170	J
11	UNKNOWN	29 45	120	J
12	UNKNOWN	30 20	120	J
13	UNKNOWN	30 53	180	J
14	UNKNOWN ALKANE	30 97	480	J
15	UNKNOWN POLYNUCLEAR AROMATIC	31 38	350	J
16	UNKNOWN ALKANE	32 75	450	J
17	UNKNOWN	34 18	180	J
18	UNKNOWN	35 60	2200	J
19	UNKNOWN	35 98	370	J
20	UNKNOWN	39 00	110	J

AV 4 3 4

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ19

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ19B

Sample wt/vol 30 0 (g/mL) G Lab File ID EJZ19B

Level (low/med) LOW Date Received 01/22/94

% Moisture 33 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 0

SM 6/17/94

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q	
51-28-5	2,4-Dinitrophenol	1200	U J	unk
100-02-7	4-Nitrophenol	1200	U J	unk
132-64-9	Dibenzofuran	490	U	
121-14-2	2,4-Dinitrotoluene	490	U	
84-66-2	Diethylphthalate	490	U	
7005-72-3	4-Chlorophenyl-phenylether	490	U	
86-73-7	Fluorene	490	U	
100-01-6	4-Nitroaniline	1200	U	
534-52-1	4,6-Dinitro-2-Methylphenol	1200	U	
86-30-6	N-Nitrosodiphenylamine (1)	490	U	
101-55-3	4-Bromophenyl-phenylether	490	U	
118-74-1	Hexachlorobenzene	490	U	
87-86-5	Pentachlorophenol	1200	U J	unk
85-01-8	Phenanthrene	260	J	
120-12-7	Anthracene	37	J	
86-74-8	Carbazole	490	U	
84-74-2	Di-n-Butylphthalate	27	J	
206-44-0	Fluoranthene	340	J	
129-00-0	Pyrene	430	J	
85-68-7	Butylbenzylphthalate	28	J	
91-94-1	3,3'-Dichlorobenzidine	490	U	AV
56-55-3	Benzo(A) anthracene	230	J	
218-01-9	Chrysene	220	J	3-3-94
117-81-7	bis(2-Ethylhexyl)Phthalate	410 ~~390~~	BJV	
117-84-0	Di-n-Octylphthalate	490	U	
205-99-2	Benzo(b)Fluoranthene	220	J	
207-08-9	Benzo(k)Fluoranthene	220	J	
50-32-8	Benzo(a)Pyrene	190	J	
193-39-5	Indeno(1,2,3-cd)Pyrene	160	J	
53-70-3	Dibenz(a,h)Anthracene	69	J	
191-24-2	Benzo(g,h,i)Perylene	170	J	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ19

Lab Name ENCOTEC Contract 68-D2-0012
Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ19B

Sample wt/vol 30 0 (g/mL) G Lab File ID EJZ19B

Level (low/med) LOW Date Received 01/22/94

% Moisture 33 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 0

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	490	U	SM 6/17/94
111-44-4	bis(2-Chloroethyl)Ether	490	U	
95-57-8	2-Chlorophenol	490	U	
541-73-1	1,3-Dichlorobenzene	490	U	
106-46-7	1,4-Dichlorobenzene	490	U	
95-50-1	1,2-Dichlorobenzene	490	U	
95-48-7	2-Methylphenol	490	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	490	U J	unk
106-44-5	4-Methylphenol	490	U	
621-64-7	N-Nitroso-Di-n-Propylamine	490	U	
67-72-1	Hexachloroethane	490	U	
98-95-3	Nitrobenzene	490	U	
78-59-1	Isophorone	490	U	
88-75-5	2-Nitrophenol	490	U	
105-67-9	2,4-Dimethylphenol	490	U	
111-91-1	bis(2-Chloroethoxy)Methane	490	U	
120-83-2	2,4-Dichlorophenol	490	U	
120-82-1	1,2,4-Trichlorobenzene	490	U	
91-20-3	Naphthalene	490	U	
106-47-8	4-Chloroaniline	490	U	
87-68-3	Hexachlorobutadiene	490	U	
59-50-7	4-Chloro-3-Methylphenol	490	U	
91-57-6	2-Methylnaphthalene	490	U	
77-47-4	Hexachlorocyclopentadiene	490	U J	unk
88-06-2	2,4,6-Trichlorophenol	490	U	
95-95-4	2,4,5-Trichlorophenol	1200	U	
91-58-7	2-Chloronaphthalene	490	U	
88-74-4	2-Nitroaniline	1200	U	
131-11-3	Dimethylphthalate	31	J	
208-96-8	Acenaphthylene	490	U	
606-20-2	2,6-Dinitrotoluene	490	U	
99-09-2	3-Nitroaniline	1200	U	
83-32-9	Acenaphthene	15	J	

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ18

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ18B

Sample wt/vol 30 0 (g/mL) G Lab File ID EJZ18B

Level (low/med) LOW Date Received 01/22/94

% Moisture 24 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 2

Number TICs found 20

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	UNKNOWN	6 85	400	JBV
2	UNKNOWN	7 17	290	J
3	UNKNOWN	7 47	210	JBV
4	UNKNOWN SILOXANE	8 50	220	JBV
5	UNKNOWN SILOXANE	11 43	160	JBV
6	UNKNOWN	11 77	130	J
7	UNKNOWN	18 45	130	J
8	UNKNOWN ORGANIC ACID	18 52	150	JBV
9	UNKNOWN ALKANE	19 87	230	J
10	UNKNOWN ALKANE	29 55	140	J
11	UNKNOWN	30 28	200	J
12	UNKNOWN	30 63	510	J
13	UNKNOWN ALKANE	31 07	560	J
14	UNKNOWN POLYNUCLEAR AROMATIC	31 48	670	J
15	UNKNOWN	32 38	140	J
16	UNKNOWN ALKANE	32 85	420	J
17	UNKNOWN	33 37	150	J
18	UNKNOWN	35 70	2600	J
19	UNKNOWN	36 07	490	J
20	UNKNOWN	36 90	190	J

AV 3-44

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ18

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ18B

Sample wt/vol 30 0 (g/mL) G Lab File ID EJZ18B

Level (low/med) LOW Date Received 01/22/94

% Moisture 24 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 2

SM 6/17/94

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q	
51-28-5	2,4-Dinitrophenol	1100	U J	unk
100-02-7	4-Nitrophenol	1100	U J	unk
132-64-9	Dibenzofuran	430	U	
121-14-2	2,4-Dinitrotoluene	430	U	
84-66-2	Diethylphthalate	430	U	
7005-72-3	4-Chlorophenyl-phenylether	430	U	
86-73-7	Fluorene	430	U	
100-01-6	4-Nitroaniline	1100	U	
534-52-1	4,6-Dinitro-2-Methylphenol	1100	U	
86-30-6	N-Nitrosodiphenylamine (1)	430	U	
101-55-3	4-Bromophenyl-phenylether	430	U	
118-74-1	Hexachlorobenzene	430	U	
87-86-5	Pentachlorophenol	1100	U J	unk
85-01-8	Phenanthrene	240	J	
120-12-7	Anthracene	35	J	
86-74-8	Carbazole	32	J	
84-74-2	Di-n-Butylphthalate	25	J	
206-44-0	Fluoranthene	430	J	
129-00-0	Pyrene	570		
85-68-7	Butylbenzylphthalate	34	J	
91-94-1	3,3'-Dichlorobenzidine	430	U	
56-55-3	Benzo(A) anthracene	350	J	AV
218-01-9	Chrysene	330	J	
117-81-7	bis(2-Ethylhexyl)Phthalate	420 ~~230~~	BJU	3-3-94
117-84-0	Di-n-Octylphthalate	430	U	
205-99-2	Benzo(b)Fluoranthene	420	J	
207-08-9	Benzo(k)Fluoranthene	360	J	
50-32-8	Benzo(a)Pyrene	340	J	
193-39-5	Indeno(1,2,3-cd)Pyrene	310	J	
53-70-3	Dibenz(a,h)Anthracene	140	J	
191-24-2	Benzo(g,h,i)Perylene	350	J	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ18

Lab Name ENCOTEC Contract 68-D2-0012
Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ18B

Sample wt/vol 30 0 (g/mL) G Lab File ID EJZ18B

Level (low/med) LOW Date Received 01/22/94

% Moisture 24 decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH 8 2

SM 6/17/94

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKW1

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) WATER Lab Sample ID LWB0124

Sample wt/vol 1000 (g/mL) ML Lab File ID LWB0124

Level (low/med) LOW Date Received

% Moisture decanted (Y/N) Date Extracted 01/24/94

Concentrated Extract Volume 1000 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH

Number TICs found 0

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

SBLKW1

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) WATER Lab Sample ID LWB0124

Sample wt/vol 1000 (g/mL) ML Lab File ID LWB0124

Level (low/med) LOW Date Received

% Moisture decanted (Y/N) Date Extracted 01/24/94

Concentrated Extract Volume 1000 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH

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

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

SBLKW1

Lab Name ENCOTEC Contract 68-D2-0012
Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) WATER Lab Sample ID LWB0124

Sample wt/vol 1000 (g/mL) ML Lab File ID LWB0124

Level (low/med) LOW Date Received

% Moisture decanted (Y/N) Date Extracted 01/24/94

Concentrated Extract Volume 1000 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH

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

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

SBLKS1

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID LSB0127

Sample wt/vol 30 0 (g/mL) G Lab File ID LSB0127

Level (low/med) LOW Date Received

% Moisture decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH

Number TICs found 5 CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	UNKNOWN	6 92	140	J
2	UNKNOWN	7 53	90	J
3	UNKNOWN SILOXANE	8 57	140	J
4	UNKNOWN SILOXANE	11 50	80	J
5	UNKNOWN ORGANIC ACID	18 58	80	J

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

SBLKS1

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID LSB0127

Sample wt/vol 30 0 (g/mL) G Lab File ID LSB0127

Level (low/med) LOW Date Received

% Moisture decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	800	U
100-02-7	4-Nitrophenol	800	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	800	U
534-52-1	4,6-Dinitro-2-Methylphenol	800	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	800	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(A) anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	38	J
117-84-0	Di-n-Octylphthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

SBLKS1

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID LSB0127

Sample wt/vol 30 0 (g/mL) G Lab File ID LSB0127

Level (low/med) LOW Date Received

% Moisture decanted (Y/N) N Date Extracted 01/27/94

Concentrated Extract Volume 500 0 (uL) Date Analyzed 02/21/94

Injection Volume 2 0(uL) Dilution Factor 1 0

GPC Cleanup (Y/N) Y pH

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

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO -

SBLKW1

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Lab File ID LWB0124 Lab Sample ID LWB0124

Instrument ID 025 Date Extracted 01/24/94

Matrix (soil/water) WATER Date Analyzed 02/21/94

Level (low/med) LOW Time Analyzed 1805

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

	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EQG98	EQG98B	EQG98B	02/21/94

COMMENTS

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO

SBLKS1

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Lab File ID LSB0127 Lab Sample ID LSB0127

Instrument ID 025 Date Extracted 01/27/94

Matrix (soil/water) SOIL Date Analyzed 02/21/94

Level (low/med) LOW Time Analyzed 1216

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

	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EJZ18	EJZ18B	EJZ18B	02/21/94
02	EJZ19	EJZ19B	EJZ19B	02/21/94
03	EJZ20	EJZ20B	EJZ20B	02/21/94
04	EJZ21	EJZ21B	EJZ21B	02/21/94
05	EJZ22	EJZ22B	EJZ22B	02/21/94
06	EJZ23	EQZ23B	EQZ23B	02/20/94
07	EJZ23DL	EJZ23BR	EJZ23BR	02/21/94
08	EJZ24	EQZ24B	EQZ24B	02/20/94
09	EJZ25	EQZ25B	EQZ25B	02/20/94
10	EJZ26	EQZ26B	EQZ26B	02/20/94
11	EJZ27	EQZ27B	EQZ27B	02/20/94
12	EQG95	EQG95B	EQG95B	02/20/94
13	EQG97	EQG97BR	EQG97BR	02/22/94
14	EJZ20MS	EQZ20BM	EQZ20BM	02/20/94
15	EJZ20MSD	EQZ20BD	EQZ20BD	02/20/94

COMMENTS

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix Spike - EPA Sample No EJZ20 Level (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC
Phenol	2880	0	1895	66	26- 90
2-Chlorophenol	2880	0	2296	80	25-102
1,4-Dichlorobenzene	1920	0	1463	76	28-104
N-Nitroso-di-n-prop (1)	1920	0	1406	73	41-126
1,2,4-Trichlorobenzene	1920	0	1519	79	38-107
4-Chloro-3-methylphenol	2880	0	2409	84	26-103
Acenaphthene	1920	0	1571	82	31-137
4-Nitrophenol	2880	0	2726	95	11-114
2,4-Dinitrotoluene	1920	0	1496	78	28- 89
Pentachlorophenol	2880	0	2824	98	17-109
Pyrene	1920	200 4	1857	86	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
Phenol	2880	1858	65	2	35	26- 90
2-Chlorophenol	2880	2303	80	0	50	25-102
1,4-Dichlorobenzene	1920	1468	76	0	27	28-104
N-Nitroso-di-n-prop (1)	1920	1362	71	3	38	41-126
1,2,4-Trichlorobenzene	1920	1563	81	2	23	38-107
4-Chloro-3-methylphenol	2880	2417	84	0	33	26-103
Acenaphthene	1920	1599	83	1	19	31-137
4-Nitrophenol	2880	2645	92	3	50	11-114
2,4-Dinitrotoluene	1920	1536	80	3	47	28- 89
Pentachlorophenol	2880	2918	101	3	47	17-109
Pyrene	1920	1735	80	7	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 0 out of 22 outside limits

COMMENTS

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Level (low/med) LOW

	EPA SAMPLE NO	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	S7 (2CP)#	S8 (DCB)#	TOT OUT
01	EJZ18	88	82	88	82	89	71	67	77	0
02	EJZ19	91	84	91	83	87	72	66	79	0
03	EJZ20	83	76	88	74	73	70	57	65	0
04	EJZ21	92	83	88	79	81	71	65	79	0
05	EJZ22	89	85	97	83	83	71	67	78	0
06	EJZ23	79	81	87	82	86	40	73	80	0
07	EJZ23DL	92	89	93	85	85	68	69	83	0
08	EJZ24	78	80	85	79	85	50	70	77	0
09	EJZ25	77	80	77	76	78	81	68	77	0
10	EJZ26	82	83	81	80	84	85	72	80	0
11	EJZ27	81	82	78	82	87	83	74	82	0
12	EQG95	79	84	83	83	87	88	72	79	0
13	EQG97	53	84	105	54	87	148 *	67	77	1
14	EJZ20MS	79	79	80	80	86	68	70	78	0
15	EJZ20MSD	81	80	75	81	85	83	70	76	0
16	SBLKS1	92	85	77	81	85	60	67	81	0

		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(23-120)	
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)	
S3 (TPH)	= Terphenyl-d14	(18-137)	
S4 (PHL)	= Phenol-d5	(24-113)	
S5 (2FP)	= 2-Fluorophenol	(25-121)	
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)	
S7 (2CP)	= 2-Chlorophenol-d4	(20-130)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(20-130)	(advisory)

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

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

	EPA SAMPLE NO	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	S7 (2CP)#	S8 (DCB)#	TOT OUT
01	EQG98	93	79	79	80	81	78	68	72	0
02	SBLKW1	95	80	80	80	80	78	68	74	0

		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(35-114)	
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)	
S3 (TPH)	= Terphenyl-d14	(33-141)	
S4 (PHL)	= Phenol-d5	(10-110)	
S5 (2FP)	= 2-Fluorophenol	(21-110)	
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)	
S7 (2CP)	= 2-Chlorophenol-d4	(33-110)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(16-110)	(advisory)

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EQG98

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) WATER Lab Sample ID EQG98V

Sample wt/vol 5 0 (g/mL) ML Lab File ID EQG98V

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec Date Analyzed 01/26/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 0

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO -

EQG97RE

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQG97VR

Sample wt/vol 5 0 (g/mL) G Lab File ID EQG97VR

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 27 Date Analyzed 01/30/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 0

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EQG98

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) WATER Lab Sample ID EQG98V

Sample wt/vol 5 0 (g/mL) ML Lab File ID EQG98V

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec Date Analyzed 01/26/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

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

AV 3-2-94

SM 6/17/94 VOK

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EQG97

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQG97V

Sample wt/vol 5 0 (g/mL) G Lab File ID EQG97V

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 27 Date Analyzed 01/29/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 1

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1 75-69-4	TRICHLOROFLUOROMETHANE	3 20	8	JN

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EQG97RE

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQG97VR

Sample wt/vol 5 0 (g/mL) G Lab File ID EQG97VR

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 27 Date Analyzed 01/30/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Sum 6/17/94 use these results

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	22	BU
67-64-1	Acetone	10	BJU
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	14	U
75-34-3	1,1-Dichloroethane	14	U
540-59-0	1,2-Dichloroethene (total)	14	U
67-66-3	Chloroform	14	U
107-06-2	1,2-Dichloroethane	14	U
78-93-3	2-Butanone	4	BJU
71-55-6	1,1,1-Trichloroethane	14	U
56-23-5	Carbon Tetrachloride	14	U
75-27-4	Bromodichloromethane	14	U
78-87-5	1,2-Dichloropropane	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
79-01-6	Trichloroethene	14	U
124-48-1	Dibromochloromethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
71-43-2	Benzene	14	U
10061-02-6	Trans-1,3-Dichloropropene	14	U
75-25-2	Bromoform	14	U
108-10-1	4-Methyl-2-Pentanone	14	UJ
591-78-6	2-Hexanone	14	UJ
127-18-4	Tetrachloroethene	14	UJ
79-34-5	1,1,2,2-Tetrachloroethane	14	UJ
108-88-3	Toluene	7	J
108-90-7	Chlorobenzene	14	UJ
100-41-4	Ethylbenzene	2	J
100-42-5	Styrene	14	UJ
1330-20-7	Xylene (total)	10	J

AV 3-2-94

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EQG95RE

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQG95VR

Sample wt/vol 5 0 (g/mL) G Lab File ID EQG95VR

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 23 Date Analyzed 01/30/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 1

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1 624-92-0	DIMETHYL DISULFIDE	10 85	8	JN

USE RE RESULTS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EQG97

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQG97V

Sample wt/vol 5 0 (g/mL) G Lab File ID EQG97V

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 27 Date Analyzed 01/29/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

SMM 6/17/94

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	28	BU
67-64-1	Acetone	14 ~~12~~	BJU
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	14	U
75-34-3	1,1-Dichloroethane	14	U
540-59-0	1,2-Dichloroethene (total)	14	U
67-66-3	Chloroform	14	U
107-06-2	1,2-Dichloroethane	14	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	14	U
56-23-5	Carbon Tetrachloride	14	U
75-27-4	Bromodichloromethane	14	U
78-87-5	1,2-Dichloropropane	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
79-01-6	Trichloroethene	14	U
124-48-1	Dibromochloromethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
71-43-2	Benzene	14	U
10061-02-6	Trans-1,3-Dichloropropene	14	U
75-25-2	Bromoform	14	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	14	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
108-88-3	Toluene	8	J
108-90-7	Chlorobenzene	14	U
100-41-4	Ethylbenzene	3	J
100-42-5	Styrene	14	U
1330-20-7	Xylene (total)	12	J

USE EQG97RE results

All 3 -14

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EQG95

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQG95V

Sample wt/vol 5 0 (g/mL) G Lab File ID EQG95V

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 23 Date Analyzed 01/29/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 1 CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1 75-18-3	THIOBISMETHANE	3 98	7	JN

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EQG95RE

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQG95VR

Sample wt/vol 5 0 (g/mL) G Lab File ID EQG95VR

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 23 Date Analyzed 01/30/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

SAM 6/17/94 use these results

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

A-1 3-1-94

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ27

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ27VR

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ27VR

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 21 Date Analyzed 01/30/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 0

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q

USE RE RESULTS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EQG95

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EQG95V

Sample wt/vol 5 0 (g/mL) G Lab File ID EQG95V

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 23 Date Analyzed 01/29/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

SM 6/17/94 use EQG95RE results

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	18	BU
67-64-1	Acetone	13 ~~11~~	BJU
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	13	U
75-34-3	1,1-Dichloroethane	13	U
540-59-0	1,2-Dichloroethene (total)	13	U
67-66-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	~~5~~	BJU
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
78-87-5	1,2-Dichloropropane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
79-01-6	Trichloroethene	13	U
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-02-6	Trans-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
1330-20-7	Xylene (total)	13	U

AV 3-2-94

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ27

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ27VR

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ27VR

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 21 Date Analyzed 01/30/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	13 ~~7~~	BJ U
67-64-1	Acetone	17	B U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	13	U
75-34-3	1,1-Dichloroethane	13	U
540-59-0	1,2-Dichloroethene (total)	13	U
67-66-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	6	BJ U
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
78-87-5	1,2-Dichloropropane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
79-01-6	Trichloroethene	13	U
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-02-6	Trans-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-88-3	Toluene	1	J
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
1330-20-7	Xylene (total)	13	U

A1

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ26

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ26VR

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ26VR

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 25 Date Analyzed 01/30/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 0

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ26

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ26VR

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ26VR

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 25 Date Analyzed 01/30/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	13 ~~8~~	BJ
67-64-1	Acetone	16	B
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	13	U
75-34-3	1,1-Dichloroethane	13	U
540-59-0	1,2-Dichloroethene (total)	13	U
67-66-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	13 ~~5~~	BJ
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
78-87-5	1,2-Dichloropropane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
79-01-6	Trichloroethene	13	U
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-02-6	Trans-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-88-3	Toluene	13	U
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
1330-20-7	Xylene (total)	13	U

AV
3-294

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ25RE

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ25VR

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ25VR

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 15 Date Analyzed 01/30/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 0

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q

USE EJZ25

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ25RE

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ25VR

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ25VR

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 15 Date Analyzed 01/30/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	12 ~~X~~	BJU
67-64-1	Acetone	13	BU
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	Trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

Sm 6/19/94 use EJZ25 results

AV 3-2-94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EJZ25

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ25V

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ25V

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 15 Date Analyzed 01/29/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 0

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ25

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ25V

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ25V

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 15 Date Analyzed 01/29/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

SVM 6/17/94 Use these results

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	13	B
67-64-1	Acetone	12 ~~8~~	BJ
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	Trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	2	J

AV 3-7-94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ24RE

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ24VR

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ24VR

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 21 Date Analyzed 01/30/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 0

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ24RE

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ24VR

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ24VR

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 21 Date Analyzed 01/30/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

SM 6/19/94

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	13	BU
67-64-1	Acetone	14	BU
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	13	U
75-34-3	1,1-Dichloroethane	13	U
540-59-0	1,2-Dichloroethene (total)	13	U
67-66-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	13 5	BJU
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
78-87-5	1,2-Dichloropropane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
79-01-6	Trichloroethene	13	U
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-02-6	Trans-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	UJ
591-78-6	2-Hexanone	13	UJ
127-18-4	Tetrachloroethene	13	UJ
79-34-5	1,1,2,2-Tetrachloroethane	13	UJ
108-88-3	Toluene	4	J
108-90-7	Chlorobenzene	13	UJ
100-41-4	Ethylbenzene	13	UJ
100-42-5	Styrene	13	UJ
1330-20-7	Xylene (total)	2	J

use these results

AV 3-2-94

FORM I VOA 3/90

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ24

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ24V

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ24V

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 21 Date Analyzed 01/29/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 1 CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	UNKNOWN	2 20	7	J

USE RE RESULTS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ24

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ24V

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ24V

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 21 Date Analyzed 01/29/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

SM 01/17/94 Use EJZ24RE results

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	17	BU
67-64-1	Acetone	12 ~~7~~	BJU
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	13	U
75-34-3	1,1-Dichloroethane	13	U
540-59-0	1,2-Dichloroethene (total)	13	U
67-66-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	13 ~~3~~	BJU
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
78-87-5	1,2-Dichloropropane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
79-01-6	Trichloroethene	13	U
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-02-6	Trans-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-88-3	Toluene	3	J
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
1330-20-7	Xylene (total)	3	J

AV 3-2-94

FORM I VOA 3/90

USE RE RESULTS

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ23RE

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ23VR

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ23VR

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 20 Date Analyzed 01/30/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 0

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ23RE

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ23VR

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ23VR

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 20 Date Analyzed 01/30/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

SM 6/17/94 Use these results

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ23

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ23V

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ23V

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 20 Date Analyzed 01/29/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 1

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	UNKNOWN	2 18	7	J

USE RE RESULTS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ23

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ23V

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ23V

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 20 Date Analyzed 01/29/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

SM 6/17/94 USE EJZ23RE results

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

AV 3-2-94

FORM I VOA 3/90

USE RE RESULTS

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ22RE

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ22VR

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ22VR

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 19 Date Analyzed 01/30/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 1

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1 75-69-4	TRICHLOROFLUOROMETHANE	3 18	10	JN

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ22RE

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ22VR

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ22VR

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 19 Date Analyzed 01/30/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Sm 01/24/94 use these results

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	22	BU
67-64-1	Acetone	129	BJ
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	25	BJ
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	Trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	UJ
591-78-6	2-Hexanone	12	UJ
127-18-4	Tetrachloroethene	12	UJ
79-34-5	1,1,2,2-Tetrachloroethane	12	UJ
108-88-3	Toluene	6	J
108-90-7	Chlorobenzene	12	UJ
100-41-4	Ethylbenzene	12	UJ
100-42-5	Styrene	12	UJ
1330-20-7	Xylene (total)	4	J

AV 3-2-94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ22

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ22V

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ22V

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 19 Date Analyzed 01/29/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 2

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	UNKNOWN	2 18	8	J
2 75-69-4	TRICHLOROFLUOROMETHANE	3 17	9	JN

USE EJZ22-RE RESULTS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ22

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ22V

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ22V

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 19 Date Analyzed 01/29/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	21	BU
67-64-1	Acetone	12 ~~11~~	BJU
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	Trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	4	J
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	4	J

SMA 6/17/94

USE EJZ22RE results AV 3-2-94

USE EJZ22RE RESULTS

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ21

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ21VR

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ21VR

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 18 Date Analyzed 01/30/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 0

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ21

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ21VR

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ21VR

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 18 Date Analyzed 01/30/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	13	BU
67-64-1	Acetone	14	BU
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12 5	BJU
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	Trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	2	J

AV 3-2-94

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EJZ20

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ20V

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ20V

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 13 Date Analyzed 01/29/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 1 CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	UNKNOWN	2 18	35	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ20

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ20V

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ20V

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 13 Date Analyzed 01/29/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

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

AV
3 2-94

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EJZ19

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ19V

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ19V

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 32 Date Analyzed 01/29/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 1 CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	UNKNOWN	2 18	91	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ19

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ19V

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ19V

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 32 Date Analyzed 01/29/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

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

AV
3-2-94

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EJZ18

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ18V

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ18V

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 24 Date Analyzed 01/29/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 2

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q
1	UNKNOWN	2 18	130	
2 75-69-4	TIRCHLOROFLUROMETHANE	3 18	10	JN

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

EJZ18

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID EJZ18V

Sample wt/vol 5 0 (g/mL) G Lab File ID EJZ18V

Level (low/med) LOW Date Received 01/22/94

% Moisture not dec 24 Date Analyzed 01/29/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

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

AV 3-2-94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

VBLKZD

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID VSB0130Z

Sample wt/vol 5 0 (g/mL) G Lab File ID VSB0130Z

Level (low/med) LOW Date Received

% Moisture not dec Date Analyzed 01/30/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 0

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

VBLKZD

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID VSB0130Z

Sample wt/vol 5 0 (g/mL) G Lab File ID VSB0130Z

Level (low/med) LOW Date Received

% Moisture not dec Date Analyzed 01/30/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

VBLKCZ

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID VSB0129Z

Sample wt/vol 5 0 (g/mL) G Lab File ID VSB0129Z

Level (low/med) LOW Date Received

% Moisture not dec Date Analyzed 01/29/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 0

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

VBLKCZ

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) SOIL Lab Sample ID VSB0129Z

Sample wt/vol 5 0 (g/mL) G Lab File ID VSB0129Z

Level (low/med) LOW Date Received

% Moisture not dec Date Analyzed 01/29/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKZZ

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) WATER Lab Sample ID VWB0126Z

Sample wt/vol 5 0 (g/mL) ML Lab File ID VWB0126Z

Level (low/med) LOW Date Received

% Moisture not dec Date Analyzed 01/26/94

GC Column CAP ID 0 530 (mm) Dilution Factor 1 0

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

Number TICs found 0

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

VBLKZZ

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix (soil/water) WATER Lab Sample ID VWB0126Z

Sample wt/vol 5 0 (g/mL) ML Lab File ID VWB0126Z

Level (low/med) LOW Date Received

% Moisture not dec Date Analyzed 01/26/94

GC Column CAP ° ID 0 530 (mm) Dilution Factor 1 0

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

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

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO

VBLKZD

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Lab File ID VSB0130Z Lab Sample ID VSB0130Z

Date Analyzed 01/30/94 Time Analyzed 0951

GC Column CAP ID 0 530(mm) Heated Purge (Y/N) Y

Instrument ID 026

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

	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EJZ21	EJZ21VR	EJZ21VR	1023
02	EJZ22RE	EJZ22VR	EJZ22VR	1056
03	EJZ23RE	EJZ23VR	EJZ23VR	1128
04	EJZ24RE	EJZ24VR	EJZ24VR	1201
05	EJZ25RE	EJZ25VR	EJZ25VR	1247
06	EJZ26	EJZ26VR	EJZ26VR	1319
07	EJZ27	EJZ27VR	EJZ27VR	1352
08	EQG95RE	EQG95VR	EQG95VR	1424
09	EQG97RE	EQG97VR	EQG97VR	1456

COMMENTS

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO

VBLKCZ

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Lab File ID VSB0129Z Lab Sample ID VSB0129Z

Date Analyzed 01/29/94 Time Analyzed 0950

GC Column CAP ID 0 530(mm) Heated Purge (Y/N) Y

Instrument ID 026

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

	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EJZ18	EJZ18V	EJZ18V	1022
02	EJZ19	EJZ19V	EJZ19V	1054
03	EJZ20	EJZ20V	EJZ20V	1126
04	EJZ22	EJZ22V	EJZ22V	1334
05	EJZ23	EJZ23V	EJZ23V	1405
06	EJZ24	EJZ24V	EJZ24V	1437
07	EJZ25	EJZ25V	EJZ25V	1509
08	EQG95	EQG95V	EQG95V	1644
09	EQG97	EQG97V	EQG97V	1716
10	EJZ20MS	EJZ20VM	EJZ20VM	1158
11	EJZ20MSD	EJZ20VD	EJZ20VD	1230

COMMENTS

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO

VBLKZZ

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Lab File ID VWB0126Z Lab Sample ID VWB0126Z

Date Analyzed 01/26/94 Time Analyzed 1118

GC Column CAP ID 0 530(mm) Heated Purge (Y/N) N

Instrument ID 026

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

	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EQG98	EQG98V	EQG98V	1612

COMMENTS

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Matrix Spike - EPA Sample No EJZ20 Level (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC
1,1-Dichloroethene	57 50	0	63 76	111	59-172
Trichloroethene	57 50	0	55 45	96	62-137
Benzene	57 50	0	60 57	105	66-142
Toluene	57 50	3 253	67 83	112	59-139
Chlorobenzene	57 50	0	58 78	102	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
1,1-Dichloroethene	57 50	62 21	108	3	22	59-172
Trichloroethene	57 50	56 02	97	1	24	62-137
Benzene	57 50	58 02	101	4	21	66-142
Toluene	57 50	62 92	104	7	21	59-139
Chlorobenzene	57 50	59 42	103	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 0 out of 10 outside limits

COMMENTS

2B
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

Level (low/med) LOW

	EPA SAMPLE NO	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	EJZ18	110	89	102	0	0
02	EJZ19	114	89	103	0	0
03	EJZ20	111	88	102	0	0
04	EJZ21	115	86	96	0	0
05	EJZ22	108	90	105	0	0
06	EJZ22RE	118	88	96	0	0
07	EJZ23	110	95	109	0	0
08	EJZ23RE	108	92	99	0	0
09	EJZ24	108	89	110	0	0
10	EJZ24RE	123	83	97	0	0
11	EJZ25	108	87	106	0	0
12	EJZ25RE	119	93	100	0	0
13	EJZ26	114	91	97	0	0
14	EJZ27	107	90	98	0	0
15	EQG95	116	92	108	0	0
16	EQG95RE	121	88	98	0	0
17	EQG97	120	86	115	0	0
18	EQG97RE	124	84	98	0	0
19	EJZ20MS	112	88	107	0	0
20	EJZ20MSD	108	94	105	0	0
21	VBLKCZ	99	98	98	0	0
22	VBLKZD	102	95	94	0	0

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

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name ENCOTEC Contract 68-D2-0012

Lab Code ENCOT Case No 21530 SAS No SDG No EJZ18

	EPA SAMPLE NO	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	EQG98	103	102	98	0	0
02	VBLKZZ	102	101	98	0	0

	QC LIMITS
SMC1 (TOL) = Toluene-d8	(88-110)
SMC2 (BFB) = Bromofluorobenzene	(86-115)
SMC3 (DCE) = 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

4,4'-DDT on the DB-17 column The continuing calibration standard, INDAM04, required re-integration for Endosulfan I, Dieldrin, and DCB on the DB-17 column Please see all FORM I PEST's for results

Any technical questions regarding the data present in this deliverable should be addressed to the individual whose name appears at the end of this case narrative Please note that the "Run Logs" contained in the miscellaneous data section may be copies The location of the original documents, along with any other corresponding original documents, are listed on the "Run Logs"

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

Thomas H Marshall

Thomas H Marshall
CLP Project Manager
THM
75100

21530 PESTICIDE/PCB

SDG EJZ18

Client E P A (RAS)
Case # 21530
SDG # EJZ18

Sample Analysis - Pesticide/PCB

Sample analysis was performed without incident and within holding times Chain of custody was maintained, and samples were analyzed according to EPA SOW OLM01 8 Quality control results are summarized as follows

- Analyses of surrogates were performed on all samples, please see FORM II PEST-1 and FORM II PEST-2 for results

- The method blanks did not contain any target analytes at or above the CRQL's

- A matrix spike and matrix spike duplicate was analyzed on sample EJZ20 Please see FORM III PEST-2 for results

- The X flag is used to indicate the lack of confidence of a reported analyte whose retention times are within required windows on both columns, the lower concentration exceeds CRQLs, but the percent difference exceeds 75%

Summary

Target analytes were found in samples EJZ18, EJZ19, EJZ20, EJZ21, EJZ22, EJZ23, EJZ24, EJZ25, EJZ26, EJZ27, EQG95, and EQG97 above the CRQL Samples EJZ19, EJZ20, EJZ23, EQG95, and EQG97 required dilutions due to target analytes being over the linear range of the standards Sample EJZ25 required re-integration of

21530 SEMIVOLATILES

SDG# EJZ18

Client E P A (RAS)

Case # 21530

SDG # EJZ18

Sample Analysis - Semivolatile

Sample analysis was performed without incident and within holding times Chain of custody was maintained, and samples were analyzed according to EPA SOW OLM01 8 Quality control results are summarized as follows

- Analyses of surrogates were performed on all samples, please see FORM'S II SV-2 for results

- The method blanks revealed several target Compound detected at concentrations greater than the CRQL Several TICs were also identified Please see method blank FORM's I SV-1 and SV-TIC for results

-A Matrix spike and matrix spike duplicate was analyzed on sample EJZ20 Please see FORM III SV-2 for results

- All EICP areas and retention times were within QA/QC windows Please see FORM's VIII SV-1 and SV-2 for results

Summary

The samples revealed multiple Target compounds Several TIC's were detected in both samples Sample EJZ23 required reanalysis at a secondary dilution due to concentrations of detected analytes exceeding the range established by the calibration standards Please see FORM's I SV-1, SV-2, and SV-TIC for results

Summary

The samples revealed multiple positively detected Target Compounds Several Tentatively Identified Compounds were also detected in the samples Please see FORMS I VOA for results

CASE 21530 EXTRACTIONS

SDG 21530

Client E P A (RAS)
Case # 21530
SDG # EJZ18

Sample Extraction

The rinsate sample was continuous liquid-liquid extracted for Semivolatiles on January 24, 1994 The sample was separatory funnel extracted for Pesticide/PCBs on January 24, 1994 All extracts were processed according to CLP protocol without incident Final extracts were given to the GC/MS group on January 25, 1994 and to the GC group on February 1, 1994

Soil samples were sonication extracted on January 28, 1994 for Pesticide/PCBs and Semivolatiles All soil samples were screened by GC(FID) and were found be low level samples All samples were processed according to CLP protocol without incident Final extracts were given to the GC and GC/MS groups on February 3, 1994

21530 SAMPLE CUSTODY

SDG# EJZ18

Client E P A (RAS)

Case # 21530

SDG # EJZ18

Sample Login

ENCOTEC received thirteen samples from Federal Express on January 22, 1994 Standard Chain of Custody procedures were followed The samples were stored at 4°C and/or chemically preserved as required by EPA protocol The samples were scheduled for Full Organic Analysis

21530 VOLATILES

SDG# EJZ18

Client E P A (RAS)

Case # 21530

SDG # EJZ18

Sample Analysis - Volatile

Sample analysis was performed without incident and within holding times Chain of custody was maintained, and samples were analyzed according to EPA SOW OLM01 8 Quality control results are summarized as follows

- Analyses of surrogates were performed on all samples, please see FORMS II VOA-2 for results

- The method blanks, contained one or more of the following target analytes Methylene Chloride, Acetone and 2-Butanone near or below the CRQL No Tentatively Identified Compounds (TICs) were detected Please see method blank Forms I VOA for results

- A Matrix spike and matrix spike duplicate was analyzed on sample EJZ20 Please see FORM III VOA-2 for results

- All EICP areas and retention times were within QA/QC windows except samples EJZ22, EJZ23, EJZ24, EJZ25, EQG95 and EQG97 These samples were reanalyzed to verify possible matrix interferences that may have caused EICP outliers The sample reanalyses revealed similar EICP outliers Please see FORM's VIII VOA for results

NARRATIVE

CASE 21530

A total of thirteen samples were received by ENCOTEC on January 22, 1994, and were scheduled for Organics Analysis under Contract #68-D2-0012, first bid lot Please refer to the following table for vital information that pertains to this case

Table 1 0

SDG # EJZ18

	SAMPLE ANALYZED			
	Actual Samples	QC Samples	Re-Run Samples	Total Billable Analyses
Volatile Analyses	13	2	6	21
Semivolatile Analyses	13	2	1	16
Pesticide/PCB Analyses	13	2	5	20

Total Billable Analyses 16 FULL + 5 VOA + 4 PEST/PCB

This Deliverables Package is assembled in accordance with instructions in Section B, OLM01 8 revision of the Contract Laboratory Program - Statement of Work A copy of this deliverable has been distributed to the Sample Management Office (SMO), EMSL-LV and Region V In addition a sample Summary Data Package has been sent to SMO

The following is a detailed description of quality control, shipment, and/or analytical problems that were encountered in the processing of these samples

Organic Sample Collection Requirements

This form replaces both the Individual Traffic Report and EPA Chain of Custody Record If the sampling team elects to use an alternative chain of custody form cross out the bottom portion of this record and indicate that chain-of-custody information is recorded on an alternative form

Water Samples	Required Volume	Container Type
Extractable Analysis (Low Level)	1 Gallon	1 X 4 liter Amber Glass Bottle
		OR
		2 X 80-oz Amber Glass Bottle
		OR
		4 X 1-liter Amber Glass Bottles
Extractable Analysis (Medium Level)	1 Gallon	32-oz Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level)	80 ml	2 X 40-ml Glass Vials

Soil/Sediment Samples	Required Volume	Container Type
Extractable Analysis (Low or Medium Level)	6 oz	1 X 8-oz Wide Mouth Glass Jar
		OR
	240 ml	2 X 4-oz Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level*)		2 X 120 ml Wide-Mouth Glass Vials

Soil VOA Vials under study subject to change check to ensure proper sealing

All Medium and High Level Samples to be Sealed in Metal Can for Shipment

HIGH CONCENTRATION SAMPLE COLLECTION REQUIREMENTS

Liquid or Solid Samples	Required Volume	Container Type
Extractable and Volatile Analysis	6 oz	1 X 8-oz Wide-Mouth Glass Jar

1 Organic Sample Collection Requirements

- Please indicate sample to spike and/or duplicate
- Ship medium and high concentration samples in paint cans
  Aqueous samples require one triple volume sample per twenty for Matrix Spike/Matrix Spike Duplicate
  Oily samples must be analyzed under the Special Analytical Services (SAS) program
- Confirmatory analysis and Special Analytical Services (SAS) parameters may require extra volume for SAS consult specified SAS methods for requirements
- Additional sample volume not required for method OLC01

2 Cooler and Sample Documentation

- Complete all sections of the Traffic Report/Chain of Custody Form Press firmly with a ball point pen to ensure that carbon copies are legible Check the information and correct any errors
- Please remember to complete the Chain of Custody information on the form.
  Seal the two sets of laboratory Traffic Report/Chain of Custody form copies in a plastic bag Include a return address for the cooler Tape bag under cooler lid
- Overlap the lid and bottle of each sample container with custody seals
- Seal each container in a plastic bag
  Pack medium and high concentration samples in metal cans
- Cool low waters to 4 C Cooling of low soils is optional Do not cool medium or high concentration waters and soils
- Separate and surround cooler contents with vermiculite or equivalent packaging
  Seal the cooler overlapping the lid and body with custody seals
  FAX SMO a copy of the Traffic Report/Chain of Custody Form as soon as possible Send SMO the pink copy of the Traffic Report within 5 days
  In column E RAS analysis indicate number of sample bottles sent for analysis

3 Sample Shipment Reporting

- PHONE IN ALL SHIPMENTS IMMEDIATELY TO SMO (or to RSCC if instructed)
  Required information
  - Case (and/or SAS) Number
  - Date shipped
  - Number of samples by concentration and matrix
  - Carrier and airbill number
  - Next planned shipment

  Leave your name and a number where you can be reached
- Information for SATURDAY DELIVERIES must be phoned in by 3 00 PM (Eastern) the preceding FRIDAY
- Report any delays or changes of scope (i e changes in number of samples to be collected matrix changes etc)
- CALL IF YOU HAVE ANY QUESTIONS

USEPA Contract Laboratory Program
Sample Management Office
P O Box 818
Alexandria VA 22313
Phone (703) 557 2490
(703) 684 5678
FAX (703) 683 0378

EPA

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

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No (if applicable):

Case No: 21530

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

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

3 Region No: V

Sampling Co: BVWST

Sampler (Name): Miguel A Sanchez

Sampler Signature: Miguel A Sanchez

4 Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	X		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		ESI X	O&M	OIL
			NPLD	UST

5 Date Shipped: 1/21/94

Carrier: Fed Ex

Airbill Number: 8630885712

6 Ship To: Enotec
3985 Research Park Drive
Ann Arbor, MI, 48108
(_13) 761-1389
ATTN Scott Devore

7 Date Received / Received by: Scott Devore

Laboratory Contract Number: 68-D2-0012

Unit Price: 68500

8 Transfer to

Date Received

Received by

Contract Number

Price

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc Low Med High	C Sample Type Comp / Grab	D Preservative from Box 6	E RAS Analysis VOA	BNA	Pest/PCB	High ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp CLP Inorg Samp No	K Sample Condition on Rec't	L High Conc Phases (Check below) Solids	Water Mis Liq	Non Water Mis Liq
EJZ18	5	L	G	6	X	X	X		5-055386-88	PF-SS01-001	01/19/94/1450		MEQR90				
EJZ19	5	L	G	6	X	X	X		5-055390-92	PF-SS02-001	01/20/94/1518		MEQR91				
EJZ20	5	L	G	6	X	X	X		5-055394-96	PF-SS03-001	01/20/94/0900		MEQR92				
EJZ21	5	L	G	6	X	X	X		5-055399-400	PF-SS04-001	01/19/94/1345		MEQR93				
EJZ21	5	L	G	6	X				5-055398	PF-SS04-001	01/19/94/1345		MEQR93				
EJZ22	5	L	G	6	X	X	X		5-055893-95	PF-SS05-001	01/19/94/1510		MEQR94				
EJZ23	5	L	G	6	X	X	X		5-055897-99	PF-SS06-001	01/20/94/1100		MEQR95				
EJZ24	5	L	G	6	X	X	X		5-139921-~~25~~ 23	PF-SS07-001	01/20/94/1120		MEQR96				
EJZ25	5	L	G	6	X	X	X		5-139917-19	PF-SS08-001	01/20/94/0950		MEQR97				
EJZ26	5	L	G	6	X	X	X		5-139921-23	PF-SS09-001	01/20/94/1345		MEQR98				

1/21/94 MAS

Shipment for Case complete? (Y/N) MAS 1/21/94

Page 1 of 2

Sample used for a spike and/or duplicate: EJZ20

Additional Sampler Signatures: First sample EJZ18 Last sample EJZ26

Chain of Custody Seal Number: 166993-94

CHAIN OF CUSTODY RECORD

Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
Miguel A Sanchez	1/21/94 1800		SDG EJZ18 TMM	1/22/94	
Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
Relinquished by (Signature)	Date / Time	Received for Laboratory by (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	
		Scott Devore	1/22/94 1000		

Split Samples: ☐ Accepted (Signature) ☐ Declined

EPA Form 9110 2 (Rev 5 91) Replaces EPA Form (2075 7) previous edition which may be used

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SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

Org-2

Organic Sample Collection Requirements

This form replaces both the individual Traffic Report and EPA Chain of Custody Record If the sampling team elects to use an alternative chain of custody form cross out the bottom portion of this record and indicate that chain of custody information is recorded on an alternative form

Water Samples	Required Volume	Container Type
Extractable Analysis (Low Level)	1 Gallon	1 X 4-Liter Amber Glass Bottle
		OR
		2 X 80-oz Amber Glass Bottle
		OR
		4 X 1-Liter Amber Glass Bottles
Extractable Analysis (Medium Level)	1 Gallon	32-oz Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level)	80 ml	2 X 40-ml Glass Vials

Soil/Sediment Samples	Required Volume	Container Type
Extractable Analysis (Low or Medium Level)	6 oz	1 X 8-oz Wide-Mouth Glass Jar
		OR
	240 ml	2 X 4-oz Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level†)		2 X 120 ml Wide-Mouth Glass Vials†

†Soil VOA Vials under study subject to change check to ensure proper sealing

All Medium and High Level Samples to be Sealed In Metal Can for Shipment

HIGH CONCENTRATION SAMPLE COLLECTION REQUIREMENTS

Liquid or Solid Samples	Required Volume	Container Type
Extractable and Volatile Analysis	6 oz	1 X 8-oz Wide-Mouth Glass Jar

1 Organic Sample Collection Requirements

- Please indicate sample to spike and/or duplicate
- Ship medium and high concentration samples in paint cans
- Aqueous samples require one triple volume sample per twenty for Matrix Spike/Matrix Spike Duplicate
- Oily samples must be analyzed under the Special Analytical Services (SAS) program
- Confirmatory analysis and Special Analytical Services (SAS) parameters may require extra volume for SAS consult specified SAS methods for requirements
- Additional sample volume not required for method OLC01

2 Cooler and Sample Documentation

- Complete all sections of the Traffic Report/Chain of Custody Form Press firmly with a ball point pen to ensure that carbon copies are legible Check the information and correct any errors
- Please remember to complete the Chain of Custody information on the form
- Seal the two sets of laboratory Traffic Report/Chain of Custody form copies in a plastic bag Include a return address for the cooler Tape bag under cooler lid
- Overlap the lid and bottle of each sample container with custody seals
- Seal each container in a plastic bag
- Pack medium and high concentration samples in metal cans
- Cool low waters to 4 C Cooling of low soils is optional Do not cool medium or high concentration waters and soils
- Separate and surround cooler contents with vermiculite or equivalent packaging
- Seal the cooler overlapping the lid and body with custody seals
- FAX SMO a copy of the Traffic Report/Chain of Custody Form as soon as possible Send SMO the pink copy of the Traffic Report within 5 days
- In column E RAS analysis indicate number of sample bottles sent for analysis

3. Sample Shipment Reporting

- PHONE IN ALL SHIPMENTS IMMEDIATELY TO SMO (or to RSCC, if instructed)
  Required information
  - Case (and/or SAS) Number
  - Date shipped
  - Number of samples by concentration and matrix
  - Carrier and airbill number
  - Next planned shipment
- Leave your name and a number where you can be reached
- Information for SATURDAY DELIVERIES must be phoned in by 3 00 PM (Eastern) the preceding FRIDAY
- Report any delays or changes of scope (i e changes in number of samples to be collected matrix changes etc)
- CALL IF YOU HAVE ANY QUESTIONS

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EPA

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

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No (if applicable):

Case No: 21530

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

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

3 Region No: V

Sampling Co: BVWST

Sampler (Name): Miguel A Sanchez

Sampler Signature: Miguel A Sanchez

4 Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	☒		RIFS ☐	CLEM ☐
PRP	☐	PA ☐	RD ☐	REMA ☐
ST	☐	SSI ☐	RA ☐	REM ☐
FED	☐	ESI ☒	O&M ☐	OIL ☐
			NPLD ☐	UST ☐

5 Date Shipped: 1/21/94

Carrier: Fed Ex

Airbill Number: 8630885712

6 Ship To:
Encotec
3985 Research Park Drive
Ann Arbor MI 48108
(313) 761-1389
ATTN Scott Devore

7 Date Received: 1/22/94 Received by: Scott DeVore

Laboratory Contract Number: 68-D2-0012

Unit Price: 685.00

8 Transfer to:

Date Received:

Received by:

Contract Number:

Price:

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc Low Med High	C Sample Type Comp / Grab	D Preservative from Box 6	E RAS Analysis VOA	BNA	Pest/PCB	High ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp CLP Inorg Samp No	K Sample Condition on Rec'd	L High Conc Phases (Check below) Solids	Water Mis Liq	Non Water Mis Liq
EJZ27	5	L	G	6	X	X	X		5-021657-58	PF-SS10-001	01/20/94/1420		MEQR99	OK			
EJZ27	5	L	G	6	X				5-139925	PF-SS10-001	01/20/94/1420		MEQR9°				
EQG95	5	L	G	6	X	X	X		5-021486-88	PF-SS21-001	01/19/94/1600		MEQD39				
EQG97	5	L	G	6	X	X	X		5-021494-96	PF-SS23-001	01/20/94/0755		MEQD49				
* m a s 1/21/94 EQG98	4	L	G	1	X				5-059971-~~54~~ 72	PF-RB01-201	01/21/94/1630		MEQQ93				
EQG98	4	L	G	6		X	X		5-059973-74	PF-RB01-201	01/21/94/1630		MEQQ93				

First Sample: EJZ27
Last Sample: EQG98

Shipment for Case complete? (Y/N): Y

Page 2 of 2

Sample used for a spike and/or duplicate:

Additional Sampler Signatures: SDG EJZ18

Chain of Custody Seal Number: 166993-94

TDM 1/22/94

CHAIN OF CUSTODY RECORD

Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
Miguel A Sanchez	1/21/94 1800				
Relinquished by (Signature)	Date / Time	Received by (Signature)	Relinquished by (Signature)	Date / Time	Received by (Signature)
Relinquished by (Signature)	Date / Time	Received for Laboratory by (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	
		Scott DeVore	1/22/94 1000		

Split Samples ☐ Accepted (Signature)
☐ Declined

EPA Form 9110 2 (Rev 5 91) Replaces EPA Form (2075 7) previous edition which may be used

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Org-2

DATA REPORTING QUALIFIERS
(page 2)

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

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

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

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

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

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

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

DATA REPORTING QUALIFIERS
(page 1)

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

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

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

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

and df = dilution factor

$$\text{at } 24\%\ \text{moisture, } D = \frac{100 - 24}{100} = 0\ 76$$

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

For soil samples subjected to GPC clean-up procedures, the extract must be concentrated to 0 5 ml, and the sensitivity of the analysis is not compromised by the cleanup procedures Therefore, the CRQL values will apply to all samples, regardless of cleanup However, if a sample extract cannot be concentrated to the protocol-specified volume, this fact be accounted for in reporting the Sample Quantitation Limit

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

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

TABLE 4

(For Multi Media Multi Concentration Analysis)

VOLATILE INTERNAL STANDARDS WITH CORRESPONDING TCL ANALYTES ASSIGNED FOR QUANTITATION

Bromochloromethane	1,4 Difluorobenzene	Chlorobenzene d_5
Chloromethane	Bromoform	2 Hexanone
Bromomethane	1 1 1 Trichloroethane	4 Methyl 2 pentanone
Vinyl chloride	Carbon tetrachloride	Tetrachloroethene
Chloroethane	Bromodichloromethane	1 1 2 2 Tetrachloroethane
Methylene chloride	1 2 Dichloropropane	Toluene
Acetone	trans 1 3 Dichloropropene	Chlorobenzene
Carbon disulfide	Trichloroethene	Ethylbenzene
1 1 Dichloroethene	Dibromochloromethane	Styrene
1 1 Dichloroethane	1 1 2 Trichloroethane	Xylene(total)
1 2 Dichloroethene(total)	Benzene	Bromofluorobenzene(surr smc)
Chloroform	cis 1 3 Dichloropropene	Toluene d_8(surr smc)
1 2 Dichloroethane		
1 2 Dichloroethane d_4(surr smc)		
2 Butanone		

SEMIVOLATILE INTERNAL STANDARDS WITH CORRESPONDING TCL ANALYTES ASSIGNED FOR QUANTITATION

1,4 Dichlorobenzene-d_4	Naphthalene d_8	Acenaphthene d_{10}	Phenanthrene d_{10}	Chrysene d_{12}	Perylene d_{12}
Phenol	Nitrobenzene	Hexachlorocyclopentadiene	4 6 Dinitro 2 methylphenol	Pyrene	Di n octyl phthalate
bis(2 chloroethyl)ether	Isophorone	2 4 6 Trichlorophenol	N nitroso di-phenylamine	butylbenzyl phthalate	Benzo(b)fluoranthene
2 Chlorophenol	2 Nitrophenol	2 4 5 Trichlorophenol	Carbazole	3 3 Dichlorobenzidine	Benzo(k)fluoranthene
1 3 Dichlorobenzene	2 4 Dimethylphenol	2 Chloronaphthalene	4 Bromophenyl phenyl ether	Benzo(a)anthracene	Benzo(a)pyrene
1 4 Dichlorobenzene	Naphthalene	2 Nitroaniline	Hexachlorobenzene	bis(2 Ethylhexyl)phthalate	Indeno(1 2 3 cd)pyrene
2 2 Oxybis (1 chloropropane)	bis(2 Chloroethoxy)methane	Dimethylphthalate	Pentachlorophenol	Chrysene	Dibenzo(a h)anthracene
1 2 Dichlorobenzene	2 4 Dichlorophenol	Acenaphthylene	Phenanthrene	Terphenyl d_{14}(surr)	Benzo(g h i)perylene
2 Methylphenol	1 2 4 Trichlorobenzene	3 Nitroaniline	Anthracene		
bis(2 Chloroisopropyl)ether	4 Chloroaniline	Acenaphthene	Di n butyl phthalate		
4 Methylphenol	Hexachlorobutadiene	2 4 Dinitrophenol	Fluoranthene		
N nitroso-di n propylamine	4 Chloro 3 methylphenol	4 Nitrophenol			
Hexachloroethane	2 Methylnaphthalene	Dibenzofuran			
2 Fluorophenol(surr)	Nitrobenzene d_5(surr)	2 4 Dinitrotoluene			
Phenol d_5(surr)		2 6 Dinitrotoluene			
2 Chlorobenzene-d_4(surr)		Diethyl phthalate			
1 2 Dichlorobenzene-d_4(surr)		4 Chlorophenyl phenyl ether			
		Fluorene			
		4 Nitroaniline			
		2 Fluorobiphenyl(surr)			
		2 4 6 Tribromophenol(surr)			

(surr) surrogate
(smc) system monitoring compound

CALIBRATION OUTLIERS
PESTICIDE/PCB TCL COMPOUNDS

CASE\SAS#: 21530(11)

CONTRACTOR: ENCOTEC

Column: DB-1701

Site Name: Pullman Factory (IL)

Instrument#: 7400A	Initial Cal		Continue Cal.		Continue Cal		Continue Cal	
Date/Time 2-7-94	2-7-94	22'47	2-8-94	1450	2-10-94	9:21	2-11-94	2:55
2-8-94	%RSD	*	%RPD	*	%RPD	*	%RPD	*
Alpha-BHC								
Beta-BHC								
Delta-BHC								
Gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
Endrin aldehyde								
Alpha chlordane								
Gamma chlordane								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254								
Aroclor-1260								
Toxaphene								

Affected samples

		PBLKW1	
		PBLKL1	
		EJZ18	
		through	
		EJZ27	
		EJZ20MS	
		EJZ20MSD	
		EJZ19DL	
		EJZ20DL	
		EJZ23DL	
		EQC95	
		EQC97	
		EQC98	
		EQC95DL	
		EQC97DL	

Reviewer's Init/Date AV 3-3-94

ESAT-5-024 2 1/93

* These flags should be applied to the analytes on the sample data sheets

CALIBRATION OUTLIERS
PESTICIDE/PCB TCL COMPOUNDS

CASE\SAS#: 21530 CONTRACTOR: ENCOTEC

Column: DB-17 Site Name: Pullman Factory (IL)

Instrument#: 34uB	Initial Cal		Continue Cal.		Continue Cal		Continue Cal	
Date/Time 2-7-94	2-7-94	22:47	2-8-94	14:50	2-10-94	9:21	2-11-94	2:57
2-8-94	%RSD	*	%RPD	*	%RPD	*	%RPD	*
Alpha-BHC								
Beta-BHC								
Delta-BHC								
Gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan sulfate	25.6	J						
4,4'-DDT								
Methoxychlor								
Endrin ketone								
Endrin aldehyde								
Alpha chlordane								
Gamma chlordane								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254								
Aroclor-1260								
Toxaphene								

Affected samples				
			PBLKW1	
			PBLKL1	
			EQG98	
			EJZ18	
			through	
			EJZ27	
			EJZ20MS	
			EJZ20MSD	
			EQG95	
			EQG97	
			EJZ19DL	
			EJZ20DL	
			EJZ23DL	
			EQG95DL	
			EQG97DL	

Reviewer's Init/Date AV 3-3-94

ESAT-5-024 2 1/93

* These flags should be applied to the analytes on the sample data sheets.

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 2 of 2)

CASE\SAS# 21530(1)
COLUMN —

CONTRACTOR ENCOTEC
SITE NAME Pullman Factory (IL)

Instrument#	025	Initial Cal			Contin Cal			Contin Cal			Contin Cal			Contin Cal		
Date/Time	2-22-94	2-22-94 10 35														
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0 01															
4 Chlorophenyl phenylether	0 40															
Fluorene	0 90															
4 Nitroaniline	0 01															
4,6-Dinitro 2 methylphenol	0 01															
N nitrosodiphenylamine	0 01															
4 Bromophenyl phenylether	0 10															
Hexachlorobenzene	0 10															
Pentachlorophenol	0 05															
Phenanthrene	0 70															
Anthracene	0 70															
Carbazole																
Di n butylphthalate	0 01															
Fluoranthene	0 60															
Pyrene	0 60															
Butylbenzylphthalate	0 01															
3,3 Dichlorobenzidine	0 01		35.1	J												
Benzo(a)anthracene	0 80															
Chrysene	0 70															
bis(2 Ethylhexyl)phthalate	0 01															
Di n octyl phthalate	0 01															
Benzo(b)fluoranthene	0 70															
Benzo(k)fluoranthene	0 70															
Benzo(a)pyrene	0 70															
Indeno(1,2,3 cd)pyrene	0 50															
Dibenz(a,h)anthrancene	0 40															
Benzo(g,h,i)perylene	0 50															
Nitrobenzene-d5	0 01															
2 Fluorobiphenyl	0 70															
Terphenyl d14	0 50															
Phenol d5	0 80															
2 Fluorophenol	0 60															
2,4,6-Tribromophenol	0 01															
2 Chlorophenol d4																
1,2 Dichlorobenzene-d4																

Reviewer s Initials/Date AV 3 2-94

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

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 1 of 2)

CASE\SAS# 21530(1)
COLUMN —

CONTRACTOR ENCOTEC
SITE NAME Pullman Textile (IL)

Instrument#	C25	Initial Cal			Contin Cal			Contin Cal			Contin Cal			Contin Cal		
Date/Time	2-22-94	2-22-94 10 35														
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0 80															
bis(2-chloroethyl) Ether	0 70															
2 Chlorophenol	0 70															
1,3 Dichlorobenzene																
1,4 Dichlorobenzene																
1,2 Dichlorobenzene																
2 Methylphenol	0 70															
2,2 -Oxybis(1-chloropropane)	0 01															
4 Methylphenol	0 60															
N nitroso-di n propylamine	0 50															
Hexachloroethane	0 30															
Nitrobenzene	0 20															
Isophorone	0 40															
2 Nitrophenol	0 10															
2,4-Dimethylphenol	0 20															
bis (2-chloroethoxy) methane	0 30															
2,4 Dichlorophenol	0 20															
1,2,4 Trichlorobenzene	0 20															
Naphthalene	0 70															
4-Chloroaniline	0 01															
Hexachlorobutadiene	0 01															
4-Chloro 3 methylphenol	0 20															
2 Methylnaphthalene	0 [illegible]															
Hexachlorocyclopentadiene	0 01															
2 4,6-Trichlorophenol	0 20															
2,4,5 Trichlorophenol	0 20															
2 Chloronaphthalene	0 80															
2 Nitroaniline	0 01															
Dimethylphthlate	0 01															
Acenaphthylene	1 30															
2,6-Dinitrotoluene	0 20															
3 Nitroaniline	0 01															
Acenaphthene	0 30															
2,4 Dinitrophenol	0 01															
4 Nitrophenol	0 01															
Dibenzofuran	[illegible]															
2,4-Dinitrotoluene	0 20															

Affected samples

EQG97

Reviewer s Init/Date AV 3 2-94

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Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 2 of 2)

CASE\SAS# 21530 (1)
COLUMN —

CONTRACTOR ENCOTEC
SITE NAME Pullman Factory (IL)

Instrument#	C25	Initial Cal			Contin Cal			Contin Cal			Contin Cal			Contin Cal		
Date/Time	2-19-94	2-19-94 22:23			2-20-94 3:32			2-21-94 10:35								
	#	rf	% rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0.01															
4 Chlorophenyl phenylether	0.40															
Fluorene	0.90															
4 Nitroaniline	0.01															
4,6-Dinitro 2 methylphenol	0.01															
N nitrosodiphenylamine	0.01															
4 Bromophenyl phenylether	0.10															
Hexachlorobenzene	0.10															
Pentachlorophenol	0.05	.120			.084	30.0	J	.076	36.7	J						
Phenanthrene	0.70															
Anthracene	0.70															
Carbazole																
Di n butylphthalate	0.01															
Fluoranthene	0.60															
Pyrene	0.60															
Butylbenzylphthalate	0.01															
3,3 Dichlorobenzidine	0.01															
Benzo(a)anthracene	0.80															
Chrysene	0.70															
bis(2 Ethylhexyl)phthalate	0.01															
Di n octyl phthalate	0.01															
Benzo(b)fluoranthene	0.70															
Benzo(k)fluoranthene	0.70	1.029			1.300	26.3	J	1.234								
Benzo(a)pyrene	0.70															
Indeno(1,2,3-cd)pyrene	0.50															
Dibenz(a,h)anthrancene	0.40															
Benzo(g,h,i)perylene	0.50															
Nitrobenzene-d5	0.01															
2 Fluorobiphenyl	0.70															
Terphenyl d14	0.50															
Phenol d5	0.80															
2 Fluorophenol	0.60															
2,4,6-Tribromophenol	0.01															
2 Chlorophenol d4																
1,2 Dichlorobenzene d4																

Reviewer s Initials/Date AV 3-2-94

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\# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 1 of 2)

CASE\SAS# 21530(1)
COLUMN —

CONTRACTOR ENCOTEC
SITE NAME Pullman Plating (IL)

Instrument#	025	Initial Cal			Contin Cal			Contin Cal			Contin Cal			Contin Cal		
Date/Time	2-19-94	2-19-94 22'23			2-20-94 3.32			2-21-94 10'35								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0.80															
bis(2-chloroethyl) Ether	0.70															
2 Chlorophenol	0.70															
1,3 Dichlorobenzene																
1,4 Dichlorobenzene																
1,2 Dichlorobenzene																
2 Methylphenol	0.70															
2,2 -Oxybis(1-chl propane)	0.01	1.764			1.586			1.085	38.5	J						
4 Methylphenol	0.60															
N nitroso-di n propylamine	0.50															
Hexachloroethane	0.30															
Nitrobenzene	0.20															
Isophorone	0.40															
2 Nitrophenol	0.10															
2,4-Dimethylphenol	0.20															
bis (2-chloroethoxy)meth ne	0.30															
2,4 Dichlorophenol	0.20															
1,2,4 Trichlorobenzene	0.20															
Naphthalene	0.70															
4-Chloroaniline	0.01															
Hexachlorobutadiene	0.01															
4-Chloro 3 methylphenol	0.20															
2 Methylnaphthalene	0.40															
Hexachlorocyclopentadiene	0.01	.341			.351			.233	31.7	J						
2,4,6-Trichlorophenol	0.20															
2,4,5 Trichlorophenol	0.20															
2 Chloronaphthalene	0.80															
2 Nitroaniline	0.01															
Dimethyl phthlate	0.01															
Acenaphthylene	1.30															
2,6-Dinitrotoluene	0.20															
3 Nitroaniline	0.01															
Acenaphthene	0.30															
2,4 Dinitrophenol	0.01	.222			.167			.147	33.8	J						
4 Nitrophenol	0.01	.230			.167	27.4	J	.145	32.0	J						
Dibenzofuran	0.80															
2,4-Dinitrotoluene	0.20															

Affected samples

EJZ20MS	SBLKS1
EJZ20MSD	EJZ18
EJZ23	through
EJZ24	EJZ22
EJZ25	EJZ23DL
EJZ26	SBLKW1
EJZ27	EQG98
EQC95	

Reviewer's Init/Date AV 3-2-94

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

CALIBRATION OUTLIERS
VOLATILE TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS# 21530(1)
COLUMN CAP"

CONTRACTOR ENCOTEC
SITE NAME Fullman Factory (IL)

Instrument#	C 26	Initial Cal			Contin Cal			Contin Cal			Contin Cal			Contin Cal		
Date/Time	1-26-94	1-26-94 21 41			1-29 94 5:46			1 30 94 5:47								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0 01															
Bromomethane	0 10															
Vinyl chloride	0 10															
Chloroethane	0 01															
Methylene chloride	0 01															
Acetone	0 01															
Carbon disulfide	0 01															
1,1 Dichloroethene	0 10															
1,1 Dichloroethane	0 20															
1,2 Dichloroethene (total)																
Chloroform	0 20															
1,2 Dichloroethane	0 10															
2 Butanone	0 01															
1,1,1 Trichloroethane	0 10															
Carbon tetrachloride	0 10															
Bromodichloromethane	0 20															
1,2 Dichloropropane																
cis 1,3 Dichloropropene	0 20															
Trichloroethene	0 30															
Dibromochloromethane	0 10															
1,1,2 Trichloroethane	0 10															
Benzene	0 50															
tran 1,3 Dichloropropene	0 10															
Bromoform	0 10															
4 Methyl 2 pentanone	0 01															
2 Hexanone	0 01															
Tetrachloroethene	0 20															
1,1,2,2 Tetrachloroethane	0 50															
Toluene	0 40															
Chlorobenzene	0 50															
Ethylbenzene	0 10															
Styrene	0 30															
Xylene (total)	0 30															
Toluene-d8																
Bromofluorobenzene																
1,2 Dichloroethane-d4																

Samples affected

VBLKCZ	VBLKZD
EJZ18	EJZ21
EJZ19	EJZ22RE
EJZ20	through
EJZ20MS	EJZ25RE
EJZ20MSD	EJZ26
EJZ22	EJZ27
through	EQC95RE
EJZ25	EQC97RE
EQG95	
EQG97	

Reviewer s Init/Date AV 3 2-94

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

CALIBRATION OUTLIERS
VOLATILE TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS# 21530 (1)
COLUMN "CAP"

CONTRACTOR ENCOTEC
SITE NAME Pullman Factory (IL)

Instrument#		Initial Cal			Contin Cal			Contin Cal			Contin Cal			Contin Cal		
Date/Time		1-25-94	1402		1-26-94	1013										
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0.01															
Bromomethane	0.10															
Vinyl chloride	0.10															
Chloroethane	0.01															
Methylene chloride	0.01															
Acetone	0.01		305	J												
Carbon disulfide	0.01															
1,1 Dichloroethene	0.10															
1,1 Dichloroethane	0.20															
1,2 Dichloroethene (total)																
Chloroform	0.20															
1,2 Dichloroethane	0.10															
2 Butanone	0.01															
1,1,1 Trichloroethane	0.10															
Carbon tetrachloride	0.10															
Bromodichloromethane	0.20															
1,2 Dichloropropane																
cis 1,3 Dichloropropene	0.20															
Trichloroethene	0.30															
Dibromochloromethane	0.10															
1,1,2 Trichloroethane	0.10															
Benzene	0.50															
tran 1,3 Dichloropropene	0.10															
Bromoform	0.10															
4-Methyl 2 pentanone	0.01															
2 Hexanone	0.01	.266			.346	30.1	J									
Tetrachloroethene	0.20															
1,1,2,2 Tetrachloroethane	0.50															
Toluene	0.40															
Chlorobenzene	0.50															
Ethylbenzene	0.10															
Styrene	0.30															
Xylene (total)	0.30															
Toluene-d8																
Bromofluorobenzene																
1,2 Dichloroethane-d4																

Samples affected: VBLKZZ, EQG98

Reviewer s Init/Date AV 3-2-94

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

Case 21530
Site Fullerton Factory (IL)

9 Compound Identifications

The compound identifications for all fractions appear to be satisfactory

10 Compound Quantitation and Reported Detection Limits

The correct limits were used and proper adjustments were made for sample size, percent moisture (soils) and dilutions

11 System Performance

All aspects of the system performance appear to be satisfactory

12 Additional Case-Specific Problems

The pesticide fractions of several sample were reanalyzed at dilutions because the results for one or more analytes exceeced the calibration ranges in the initial analyses The values for those analytes which exceeded the calibration ranges should therefore be taken from the corresponding diluted analyses for all other analytes, the values from the initial analyses should be used

Al Venuto (Lockheed/ESAT)
4 March 1994

Case 21530(1)
Site Sullivan Factory (IL)

5 Surrogate Recoveries

All volatile surrogate recoveries were well within the Q C limits

All semi-volatile surrogate recoveries were well within the Q C limits except for the recovery of 2,4,6-tribromophenol in EJZ20MS, which was above the upper limit, one outlier per sample is permitted for this fraction

For all soil samples except EJZ19DL and EJZ20MS, the recoveries of tetrachloro-m-xylene on column 1 were slightly below the lower limit, no action is recommended on this basis alone However, in all samples and method blanks (including waters), the rcoveries of decachlorobiphenyl (DCB) on both columns were below the Q C limits with the following exceptions the DCB recoveries were satisfactory on both columns for EJZ19DL, EJZ23DL and EQG95DL, but on column 2 only for EJZ25 and EJZ26 On this basis, the pesticide results for all samples except EJZ19DL, EJZ23DL and EJZ95DL should be considered J, estimated, for positive results or UJ, estimated quantitation limits, for non-detects

Bias ↓

6 Matrix Spikes and Matrix Spike Duplicates

All MS and MSD recoveries and RPDs for all fractions were well within the Q C limits

7 Field Duplicates and Field Blanks

No samples in this case were identified as duplicates, but the water sample (EQG98) was identified as a field blank it was completely clean except for method blank contaminants and the volatile target compound chloroform (found at a level far below CRQL)

8 Internal Standards Performance

For the volatile fraction, the areas for 1,4-difluorobenzene (IS#2) and chlorobenzene-d_5 (IS#3) in samplesEJZ22, EJZ23, EJZ24, EQG95 and EQG97 were below the lower limit, but upon reanalysis of these samples, only the areas for IS#3 remained below the limits Only the areas for IS#3 in EJZ20MS and EJZ25 were below the limits EJZ20MS was not reanalyzed since all IS areas in EJZ20 and EJZ20MSD were satisfactory, all IS areas for EJZ25RE were below the lower limit It is therefore recommended that the volatile results for samples EJZ20MS, EJZ22RE, EJZ23RE, EJZ24RE EJZ25, EQG95RE and EQG97RE be used, but compounds quantitated on IS #3 (see attached Table 4) should be considered estimated, J or UJ, as above

Rd AR ↓

All semi-volatile IS areas were within the Q C limits

Al Venuto
4 March 1994

Case 21530 (1)
Site Sherman Factory (IL)

1 Holding Times

All samples were analyzed for volatiles well within the fourteen day holding times from date of sampling for soils and preserved water samples

All soil samples were extracted for both semi-volatiles and pesticides/PCBs well within the fourteen day holding times for these fractions and the water sample was extracted for both fractions within the seven day holding times All extracts were very promptly analyzed

2 GC/MS Tuning and GC Instrument Performance

The GC tuning and mass calibration were all within the required Q C limits All pesticide breakdown results were below the maximum permissible limits All pesticide resolution checks were at or very near the ideal 100%

3 Calibration

The few calibration outliers for all fractions are listed on the outliers forms All RPDs in the pesticide calibration verification summaries (Pest-1) were well below the maximum permissible 25%

4 Method Blanks

Each of the three volatile method blanks contained only the three common contaminants methylene chloride, acetone and butanone (none at levels above CRQL) all of the samples also contained both methylene chloride and acetone and most also contained butanone

Both the water and soil semi-volatile method blanks contained the common phthalate ester bis(2-ethylhexyl) phthalate, each of the samples also contained this phthalate In addition, the soil semi-volatile method blank contained five unknown TICs, most of these TICs (especially the two earliest eluting) were also found in the soil samples

Neither the soil nor the water pesticide method blanks contained any target analytes

Al Venuto
4 March 1994