US EPA RECORDS CENTER REGION 5
407259

SPECIAL STUDY REPORT
FOR
U.S. SCRAP
CHICAGO, ILLINOIS

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PAN: FIL0102VA

VOLUME 3 OF 6

OCTOBER 10, 1990

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International Specialists in the Environment

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I ANALYTICAL RESULTS OF FIT-COLLECTED SAMPLES 1987-1988 (Cont.)

APPENDIX I

ANALYTICAL RESULTS OF FIT-COLLECTED SAMPLES
1987-1988 (Cont.)

ecology and environment, inc.

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International Specialists in the Environment

CRL Receipt Date 10-8-87 FIT Receipt Date 12-8-87 Review Completed 12-10-87

TO: Jeff CARMAN

FROM: Jim Mertes

SUBJECT: U.S. SCRAP

PAN: IL0102 CASE # ~~7964~~ 7927

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
# 11	Low Soil at 1 Med. Soil	# _____	Low Soil
_____	Low Water	_____	Low Water
_____	Drinking Water	_____	Drinking Water
_____	Other	_____	Other

Project Data Status X Completed!!

_____ Incomplete, awaiting: _____

FIT Data Review Findings: HRS usable Data enclosed.
To find detection limits, go back to original OADS form for each "hit." to see if it is >5x the concentration recorded in the DATA SUMMARY SHEETS.

Check Data Sheets for Transcription Errors

X Compounds were detected in sample(s); see enclosed sheet.

Book No. 6 Page No. 267 Date Sampled 8-18-87

26U:001

I have charged to above Q pan week ending 12-12-87
Jim.

104 pages

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 12/4/87

SUBJECT: Review of Region V CLP Data
Received for Review on 10-8-87

FROM: Curtis Ross, Director (5SCRL) Patrick J. Chuilla for
Central Regional Laboratory

TO: Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME: U.S. SCRAP SMO case No. 7424

EPA Data Set No. GF 4346 No. of Samples: 12 D.U./Activity Numbers Y905/C7210C

CRL No. 87FC16535 - 546

SMO Traffic No. EJ490-494; EL337, 338; EH436-438; E4786 ET104

CLP Laboratory: CAL. WATER LABS Hrs. Required for Review: 1.5

Following are our findings:

SEE ATTACHED REVIEW

-PJC
12-4-87

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Duane Geuder, Quality Assurance Officer, EPA Support Services
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

EPA FORM 1320-6 (Rev. 5/87)

U.S. ENVIRONMENTAL PROTECTION AGENCY
Contract Laboratory Program

E & F Corp.

SAMPLE MANAGEMENT OFFICE

MEMORANDUM

DATE: November 24, 1987

TO: Patrick Churilla
USEPA Region V

FROM: Peter Isaacson
SMO Data Review Team

SUBJECT: QA/QC Compliance Review Summary for a Contract Laboratory Program Organic Sample Data Package: Case No. 7924

As requested, quality control and performance measures for the data packages noted have been examined and compared to EPA standards for compliance. Measures for the following general areas were evaluated:

Data Completeness	Blanks
Spectra Matching Quality	DFTPP and BFB Tuning
Surrogate Spikes	Chromatography
Matrix Spikes/Duplicates	Holding Times
Calibration	Compound ID (HSL, TIC)

Any statistical measures used to support the following conclusions are attached so that the review may be reviewed by others.

Summary of Results

	I Volatiles	II B/N/A	III Pesticide
Acceptable as Submitted			
Acceptable with Comments	✓	✓	✓
Unacceptable, Action Pending			
Unacceptable			

Data Reviewed by: William P. Eckel Date: 11/19/87
Review Authorized By: Peter Isaacson Date: 11/23/87
Signature: Peter Isaacson
Area Code/Phone No.: 703 684 5678
FTS Line: 557 2490

NARRATIVE

CASE NO. 7924

SITE NAME	U.S. Scrap Chicago, IL
LABORATORY NAME	California Water

Laboratory

The laboratory's portion of this Case consisted of twelve soil samples collected on August 17 to 19, 1987.

The laboratory reported no problems with the receipt of these samples.

The laboratory reported several problems with the analyses of pesticide and PCB compounds. The laboratory narrative discussed problems in the identification of chlordane, aroclor-1254 and aroclor-1260.

The evaluator has commented on the criteria specified under each fraction heading. All criteria have been assessed, but no discussion is given where the evaluator has determined that criteria were adequately performed or require no comment. Details relevant to these comments are given on the forms in Appendix A. Amounts of detected compounds are summarized in Appendix B.

Evaluation by Fraction

I. Volatiles (VOAs)

____	Holding Times
____	GC/MS Tuning
XX	Calibration, Initial
XX	Calibration, Continuing
XX	Blank
XX	Surrogate Recovery
XX	MS/MSD
____	Compound ID (TCL, TIC)
____	Spectra Quality
____	Standards
____	Chromatography
____	Data Completeness

Comments:

Thirteen TCL compounds were reported. Most of these were chlorinated ethanes and ethenes. Aromatics, ketones and carbon disulfide were also reported.

Toluene-d_8 surrogate recoveries were 5-10% over the QC limit in most samples, causing many reruns. High MS/MSD results for toluene along with the surrogate results, cause low soil data for toluene to be estimated (J).

Data for 2-butanone and 2-chloroethyl vinyl ether are unusable (R) due to RF's below 0.050.

Data for the 3 ketones (acetone, 4-methyl-2-pentanone and 2-hexanone) should be used as detection limits (UJ) due to blank contamination.

Compounds marked J on Appendix B are estimated due to calibration problems.

Nine TIC compounds were reported (see Appendix B).

II. Base/Neutral/Acids (BNAs)

____	Holding Times
____	GC/MS Tuning
XX	Calibration, Initial
XX	Calibration, Continuing
____	Blank
XX	Surrogate Recovery
XX	MS/MSD
XX	Compound ID (TCL, TIC)
____	Standards
____	Chromatography
____	Data Completeness

Comments:

Eighteen TCL compounds were reported; mostly these were polyaromatic hydrocarbons. No acid compounds were reported.

Low acid surrogate recoveries (including 2 blanks) and high acid MS/MSD recoveries for low soils indicate that some acid compound detection limits may be higher than reported (UJ-all acid compounds, low soils).

Data for 3,3'-dichlorobenzidine are unusable (R) due to RFs below 0.050.

Compounds marked 'J' on Appendix B are estimated due to calibration problems; note that this includes several of the reported compounds.

Up to 62 different TIC compounds were reported. Many of these were alkylbenzenes, PAHs and hydrocarbons. Isophorone may have coeluted with 1,2,3,4-tetrachlorobenzene, preventing its identification as a TCL in many samples.

III. Pesticides/PCBs

____	Holding Times
____	Instrument Performance
____	DDT RT/12 Minute?
____	Retention Time Window
____	Analytical Sequence
____	DDT/Endrin Degradation
____	RT Check for DBC
____	Resolution Check
____	Calibration Linearity
____	Calibration. Continuing
XX	Blank
XX	Surrogate Recovery
XX	MS/MSD
XX	Compound ID (TCL, TIC)
____	Standards
____	Chromatography
____	Data Completeness

Comments:

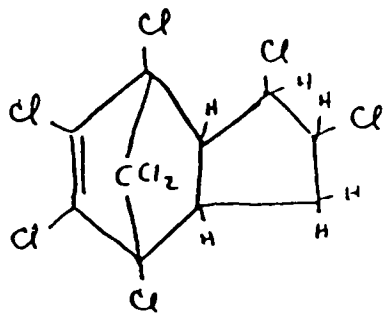
Endrin, chlordane, aroclor-1254 and aroclor-1260 were reported in the samples. Dilutions of 1:10, 1:100 or 1:1000 were required to avoid saturation of the detector for most samples. Usually chlordane was reported at a different dilution than the aroclors. The laboratory noted that several peaks were missing from the chlordane pattern, and that the two aroclors were difficult to distinguish. In most instances, the peak used to confirm chlordane was later than the RT window on the confirmation column.

Interestingly, no PCBs were reported as TICs in the BNA fraction, even though the reported concentrations (from GC/ECD) were higher than the reported BNA detection limits (from GC/MS), for many samples. The concentrations reported (2060 to 13,300 ug/kg) certainly are normally high enough for GC/MS confirmation.

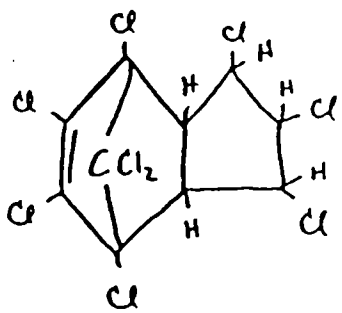
Chlordane, although reported at 1300-20,400 ug/kg was also not found as a TIC. A related compound, seen at scan 1879 in EL338 (the highest sample), is shown in Appendix A. It bears 1 more chlorine atom than chlordane, and 2 fewer hydrogens than nonachlor. This may be the compound reported as chlordane. Check marks on Appendix B indicate where peaks were seen near scan 1879 in other samples. Apparently these were too small to qualify as TICs.

Identification of the two aroclors is regarded as questionable, due to the failure of GC/MS confirmation, and because confirmation peaks were outside the RT windows on the confirmation column. These peaks may be part of the mixture containing the nonachlor-like compound.

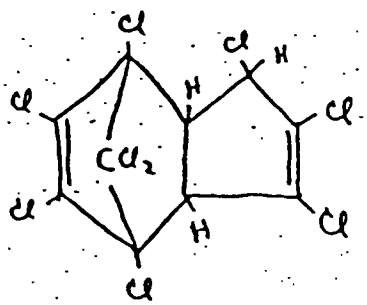
APPENDIX A
CASE 7924



CHLORDANE
$C_{10}H_6Cl_8$

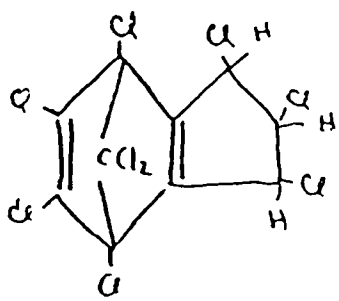


NONACHLOR
$C_{10}H_5Cl_9$



Scan # 1879
$C_{10}H_3Cl_9$

or



$C_{10}H_3Cl_9$

REVIEW MATRIX

APPENDIX B - VOA COMPOUNDS

Case No. 7924

Laboratory Name California Water

Compounds		Samples								Blanks		
		E 4786	EH 436	EH 437	EH 437 RE	EH 438	EH 439 RE	EJ 490	EJ 491	8/25	8/2	8/
Chloromethane	J											
Bromomethane	J											
Vinyl Chloride												
Chloroethane												
Methylene Chloride												
Acetone	UJ	45	25 B	16 B	24 B	210	19	15000 B	19 B	6.7	14	5
Carbon Disulfide							16					
1,1-Dichloroethene						110 DL						
1,1-Dichloroethane		16										
Trans-1,2-Dichloroethene	J	16										
Chloroform	J											
1,2-Dichloroethane	J											
2-Butanone	R											
1,1,1-Trichloroethane	J	24										
Carbon Tetrachloride	J											
Vinyl Acetate	J											
Bromodichloromethane												
1,2-Dichloropropane			HRS									
Trans-1,3-Dichloropropene			D.L. = 6.3									
Trichloroethene		150										
Dibromochloromethane												
1,1,2-Trichloroethane		17										
Benzene								6800				
cis-1,3-Dichloropropene	J											
2-Chloroethylvinylether	R											
Bromoform	J											
4-Methyl-2-Pentanone	UJ		17							4.2		
2-Hexanone	UJ		21 B							6.9		
Tetrachloroethene		110										
1,1,2,2-Tetrachloroethane	J								>5X			
Toluene	J	19	HRS					300 000	HRS	16,000	D.L.	
Chlorobenzene												
Ethylbenzene		9.9						190 000				
Styrene	J											
Total Xylenes		35	D.L. = 6.3					920 000				

Sample/Blank Association

REVIEW MATRIX

APPENDIX B - VOA COMPOUNDS

Case No. 7924

Laboratory Name California Water

Compounds	Samples								Blanks		
	EJ491 RE	EJ492	EJ492 RE	EJ493	EJ493 RE	EJ494	EL 337	EL 338			
Chloromethane											
Bromomethane											
Vinyl Chloride											
Chloroethane											
Methylene Chloride											
Acetone	20 B	19 B	18 B	22 B	17 B	27 B	33 B	27 B			
Carbon Disulfide											
1,1-Dichloroethene											
1,1-Dichloroethane											
Trans-1,2-Dichloroethene											
Chloroform											
1,2-Dichloroethane											
2-Butanone											
1,1,1-Trichloroethane											
Carbon Tetrachloride											
Vinyl Acetate											
Bromodichloromethane											
1,2-Dichloropropane											
Trans-1,3-Dichloropropene											
Trichloroethene		2.8	4.4			2.7		19			
Dibromochloromethane											
1,1,2-Trichloroethane								5.6			
Benzene											
cis-1,3-Dichloropropene											
2-Chloroethylvinylether											
Bromoform											
4-Methyl-2-Pentanone							16				
2-Hexanone							18 B				
Tetrachloroethene		4.4	7.8	5.0	5.2			24			
1,1,2,2-Tetrachloroethane											
Toluene		(3.8)	3.4			3.5					
Chlorobenzene						3.7					
Ethylbenzene											
Styrene											
Total Xylenes											
	Sample/Blank Association										

REVIEW MATRIX

APPENDIX B - VOA COMPOUNDS

Case No. 7924

Laboratory Name California Water

Compounds	Samples									Blanks
	ET 104	ET 104 RE								
Chloromethane										
Bromomethane										
Vinyl Chloride										
Chloroethane										
Methylene Chloride										
Acetone	25	28								
Carbon Disulfide	(13)	24								
1,1-Dichloroethene										
1,1-Dichloroethane										
Trans-1,2-Dichloroethene										
Chloroform										
1,2-Dichloroethane										
2-Butanone										
1,1,1-Trichloroethane										
Carbon Tetrachloride										
Vinyl Acetate										
Bromodichloromethane										
1,2-Dichloropropane										
Trans-1,3-Dichloropropene										
Trichloroethene										
Dibromochloromethane										
1,1,2-Trichloroethane										
Benzene										
cis-1,3-Dichloropropene										
2-Chloroethylvinylether										
Bromoform										
4-Methyl-2-Pentanone										
2-Hexanone										
Tetrachloroethene	(.7)	5.2								
1,1,2,2-Tetrachloroethane										
Toluene	6.1	12								
Chlorobenzene										
Ethylbenzene										
Styrene										
Total Xylenes										
	Sample/Blank Association									

REVIEW MATRIX

APPENDIX B BNA-COMPOUNDS

Case No. 7924

Laboratory Name California Wate

Compounds	Samples								Blanks	
	E 4786	EH 436	EH-137	EH 438	EJ 490	EJ 491	EJ 492	EJ 493	8/27	8/28
Phenol										
bis(2-Chloroethyl)Ether										
2-Chlorophenol										
1,3-Dichlorobenzene										
1,4-Dichlorobenzene										
Benzyl Alcohol J										
1,2-Dichlorobenzene										
2-Methylphenol										
bis(2-Chloropropyl)Ether J										
4-Methylphenol										
N-Nitroso-Di-n-Propylamine										
Hexachloroethane J										
Nitrobenzene										
Isophorone	1800 J							4200		
2-Nitrophenol										
2,4-Dimethylphenol										
Benzoic Acid J										
bis(2-Chloroethoxy)Methane										
2,4-Dichlorophenol										
1,2,4-Trichlorobenzene										
Naphthalene	860 J				18,000			2800		
4-Chloroaniline J										
Hexachlorobutadiene										
4-Chloro-3-Methylphenol										
2-Methylnaphthalene J	570 J							1300		
Hexachlorocyclopentadiene J										
2,4,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2-Chloronaphthalene										
2-Nitroaniline										
Dimethyl Phthalate										
Acenaphthylene	580 J							4900		
3-Nitroaniline J										
Acenaphthene										
2,4-Dinitrophenol J										
4-Nitrophenol J										
Dibenzofuran								890		
2,4-Dinitrotoluene J										
2,6-Dinitrotoluene										
Diethylphthalate										
4-Chlorophenyl-phenylether										
Fluorene								1100		
4-Nitroaniline J										
4,6-Dinitro-2-Methylphenol										
N-Nitrosodiphenylamine(1)										
4-Bromophenyl-phenylether										
Hexachlorobenzene										
Pentachlorophenol J										
Phenanthrene J		3800						9400		
Anthracene J								2700		
Di-n-Butylphthalate								1100		
Fluoranthene	4500	8900				2700		16 000	1400	
Pyrene	3700	9700				3000		12 000		
Butylbenzylphthalate										
3,3-Dichlorobenzidiene (R)										
Benzo(a)Anthracene		5800						8000		
bis(2-Ethylhexyl)Phthalate J	17 000	5900	32 000	49 000	67 000 B	3300		8600	7600	
Chrysene	2400	5600						6700		
Di-n-Octyl Phthalate										
Benzo(b)Fluoranthene J	4900	7400				2700		11,000		
Benzo(b)Fluoranthene (K) J										
Benzo(a)Pyrene	3300	4400						8500		
Indeno(1,2,3-cd)Pyrene								9000		
Dibenz(a-h)Anthracene										
Benzo(g,h,i)Perylene						1,3200		13,000		

Sample/Blank Association

REVIEW MATRIX

APPENDIX B BNA-COMPOUNDS

Case No. 7924

Laboratory Name California Water

Compounds	Samples									Blanks	
	ES 494	EL 337	EL 338	ET104							
Phenol											
bis(2-Chloroethyl)Ether											
2-Chlorophenol											
1,3-Dichlorobenzene											
1,4-Dichlorobenzene											
Benzyl Alcohol											
1,2-Dichlorobenzene											
2-Methylphenol											
bis(2-Chloroisopropyl)Ether											
4-Methylphenol											
N-Nitroso-Di-n-Propylamine											
Hexachloroethane											
Nitrobenzene											
Isophorone	2300	4000	3800								
2-Nitrophenol											
2,4-Dimethylphenol											
Benzoic Acid											
bis(2-Chloroethoxy)Methane											
2,4-Dichlorophenol											
1,2,4-Trichlorobenzene											
Naphthalene	530										
4-Chloroaniline											
Hexachlorobutadiene											
4-Chloro-3-Methylphenol											
2-Methylnaphthalene											
Hexachlorocyclopentadiene											
2,4,6-Trichlorophenol											
2,4,5-Trichlorophenol											
2-Chloronaphthalene											
2-Nitroaniline											
Dimethyl Phthalate											
Acenaphthylene	610										
3-Nitroaniline											
Acenaphthene											
2,4-Dinitrophenol											
4-Nitrophenol											
Dibenzofuran											
2,4-Dinitrotoluene											
2,6-Dinitrotoluene											
Diethylphthalate											
4-Chlorophenyl-phenylether											
Fluorene											
4-Nitroaniline											
4,6-Dinitro-2-Methylphenol											
N-Nitrosodiphenylamine(1)											
4-Bromophenyl-phenylether											
Hexachlorobenzene											
Pentachlorophenol											
Phenanthrene	2000	11 000	3200								
Anthracene		11 000	3200								
Di-n-Butylphthalate	900	—	2200								
Fluoranthene	2700	14 000	4300								
Pyrene	2600	15 000	4700								
Butylbenzylphthalate											
3,3-Dichlorobenzidine											
Benzo(a)Anthracene		9200	2800								
bis(2-Ethylhexyl)Phthalate	4500	11 000	11 000	47 000							
Chrysene	1900	6500	2600								
Di-n-Octylphthalate											
Benzo(b)Fluoranthene	2700	11 000	4500								
Benzo(k)Fluoranthene (1)											
Benzo(a)Pyrene		6300	2400								
Indeno(1,2,3-cd)Pyrene		6000	3500								
Dibenzo(a,h)Anthracene											
Benzo(ghi)Perylene	3500	11 000	6200								

Sample/Blank Association

REVIEW MATRIX

APPENDIX B - PESTICIDE/PCB COMPOUNDS

Page 6 of 10

Case No. 7924

Laboratory Name California Water

Compounds	Samples								Blanks		
	E 4786	EH 436	EH 437	EH 437 (dil)	EH 438	EH 438 (dil)	EJ 490	EJ 490 (dil)			
Alpha-BHC											
Beta-BHC											
Delta-BHC											
Gamma-BHC											
Heptachlor											
Aldrin											
Heptachlor Epoxide											
Endosulfan I											
Dieldrin											
4,4-DDE											
Endrin				1634							
Endosulfan II											
4,4-DDD											
Endosulfan Sulfate											
4,4-DDT											
Methoxychlor											
Endrin Ketone											
Chlordane	12,800			4380		2420		1300			
Toxaphene											
Aroclor-1016											
Aroclor-1221											
Aroclor-1232											
Aroclor-1242											
Aroclor-1248											
Aroclor-1254	11,500						2060J				
Aroclor-1260			1460		7310						
	Sample/Blank Association										

SEE NARRATIVE REGARDING CHLORDANE AND AROCLORS

REVIEW MATRIX

APPENDIX B - PESTICIDE/PCB COMPOUNDS

Case No. 7924

Laboratory Name California Wate

Compounds	Samples								Blanks	
	(dil) EJ 491	EJ 492 (dil)	EJ 493 (1:10 dil)	EJ 493 (1:100 dil)	(1:100 dil) EJ 494	EL 337 (1:100 dil)	EL 338 (1:100 dil)	ET 104 (1:10 dil)		
Alpha-BHC										
Beta-BHC										
Delta-BHC										
Gamma-BHC										
Heptachlor										
Aldrin										
Heptachlor Epoxide										
Endosulfan I										
Dieldrin										
4,4-DDE										
Endrin								650		
Endosulfan II										
4,4-DDD										
Endosulfan Sulfate										
4,4-DDT										
Methoxychlor										
Endrin Ketone										
Chlordane	10 900	13,000		12,200	10,600		20,400	5600		
Toxaphene										
Aroclor-1016										
Aroclor-1221										
Aroclor-1232										
Aroclor-1242										
Aroclor-1248										
Aroclor-1254	13 300	10,200	4810	9340	8010	10 800	10,100			
Aroclor-1260										
	Sample/Blank Association									

REVIEW MATRIX

APPENDIX B - TIC COMPOUNDS

Case No. 7924

Laboratory Name California Water

Scan #	BNA TIC Compd.	E4786	EH436	EH437	EH438	E5490	E5491	E5492	E5493	E5494	EL337	EL338	ET104	BLANK
413-25	5-methyl-2-hexanone (110-12-3)								1850	2200				
436	ortho-xylene or isomer								2700					
440	UNKNOWN (UK)	2.25 x10^4												
480-560	xylene or styrene (probably both)					1.1 x10^5			2000	1300	2100	2300		
533-67	1-methylethyl benzene (98-86-2)				3300						1100			
617	1-ethyl-2-methyl-benzene (611-14-3)					2.5 x10^4								
629	1,2,3-trimethyl-benzene (526-73-8)					1.29 x10^4								
663	1,3,5-trimethyl-benzene (108-67-8)								1750					
671	1,2,4-trimethyl-benzene (95-63-6)					5.06 x10^4								
684.	decane (124-18-5)					1.29 x10^4								
717	trimethylbenzene isomer					2.18 x10^4								
735-43	3,3,5-trimethyl-cyclohexanone (873-94-9)		1600				1500		2600					
763	1-methyl-4-propyl-benzene (1074-55-1)					1.29 x10^4								
774	1-methyl-3-(1-methylethyl)-benzene (535-77-3)					1.49 x10^4								
780-90	1-phenylethanone (98-86-2)									1400	2700	2700		
807	1-methyl-4-(1-methylethyl)-benzene (99-87-6)								3000					
812	UK					2.02 x10^4								
820	α,α-dimethyl benzene methanol (617-94-7)										2500			
857	1-ethyl-2,3-dimethylbenzene (933-98-2)					2.45 x10^4								
862-3	Isophorone or 1,2,3,4-tetramethyl-benzene (488-23-3)		2200			2.6 x10^4	2100					4000		
907	2-ethyl-1,4-dimethylbenzene (1758-88-9)					1300								
1085-7	UK	1100				1.3 x10^4								
1195-9	hydrocarbon					1.43 x10^4			1900					
1224	2,3-dimethyl-naphthalene (581-40-8)								2350					

REVIEW MATRIX

APPENDIX B - TIC COMPOUNDS

Case No. 7924 Laboratory Name California Wate

Scan #	BNA TIC Compound	EJ498C	EN436	EN437	EN438	EJ450	EJ451	EJ452	EJ453	EJ454	c. 337	EC338	EF104	BLANK
1303	hydrocarbon					1.89×10^4								
1373	PAH : $C_{16}H_{12}$	2550												
1399-1402	hydrocarbon		1500			1.35×10^5				950		1600		
1404	hydrocarbon					1.53×10^4								
1435	2-methylbenzenesulfonamide (88-19-7)	3000												
1473	4-methylbenzenesulfonamide (70-55-3)	6000												
1492	Hydrocarbon								2200	1100				
1498-1500	hydrocarbon					1.23×10^4			3000	1400				
1668-73	UK (PAH?)	7000	2000				1500		2.4×10^4	7500	8300	1.8×10^4		
1688	2-methylphenanthrene (2531-84-2)										2200			
1703	9-methylphenanthrene (832-69-9)										2600			
1721-4.	phthalate ester	3950					1600				2600			
1742-3	PAH										9600	3300		
1745	hydrocarbon		1500											
1779	6-phenyl-1,3,5-triazine-2,4-diamine (benzoguanamine) (91-76-9)	6500												
1801-9	hydrocarbon					2.37×10^5		6.75×10^4						4.5×10^4
1810-3	UK			1.27×10^4									1.12×10^4	
1859	PAH				660									
1879	Monochlor-[illegible] compt. $C_{10}H_9Cl_3$ (21654-70-3)	✓	✓			✓	✓		✓	✓	✓	2500		
1928	11H-benzo(a) fluorene (238-84-11)								2300					
1931	1-methylpyrene (2381-21-7)										3300			
1952	benzoic acid ester									3600	2500			
1970	PAH chlorobenzene?		1900											
2065	PAH	3950												
2069	2-ethylhexyl diphenyl ester, phosphoric acid (1241-94-7)											2500		
2089	tris(2-ethylhexyl) ester, phosphoric acid (78-42-2)	3300												
2167-71	PAH	3600	3200				[illegible]00		3050	28[illegible]500		[illegible]		

REVIEW MATRIX

APPENDIX B - TIC COMPOUNDS

Case No. 7924

Laboratory Name California Water

Scan #	BNA TIC Compound	E4786	EH436	EH437	EH438	EJ490	EJ491	EJ492	EJ493	EJ494	EL737	EL338	ET104	BLANK
2254-7	phthalate ester	3650								2200	4200			
(B) 2305-8	PNA? C_6H_2?		9600	3400	3600	4.55 x10⁴	3600	4.64 x10⁴					5200	4600
2319-22	benz(e)acephenanthrylene (205-99-2)	3000	2500				2000		5500					
2349-58	benzo(j)fluoranthene (205-82-3)	4000	5500				3000		7500	2600	7300			
2361-3	benz(e)acephenanthrene (205-99-2)	4350								2400				
2401	hydrocarbon?	3350												
2580-5	HC + PNA?	2650							1700					
2597	PNA								1950					
2628	dibenzo(def, mno) Chrysene (191-26-4)	2650												
2663	UK								2200					
2702	isomer of scan # 2628	3000												
2732	PNA								1950					
Scan #	VOA TIC Cmpd.													
(B) 54-66	Isocyanomethane or Acetonitrile		7.2	8.4	14		10.8 22.8	14.6 12	20 7.6		12	16		8.9 9.2
104	acetone (see TCL's)		7.9											
120	HS-COOH?				5.5									
136	UK				5.5									
161	tetrahydrofuran (109-99-9)												6.6	
282	$C_3O_{2-3}H_x$	9.5												
446-7	(Z)-5,5-dimethyl-2-hexene (19761-61-0)		12	6 16			10 16.8	14.7 10	18 11		10			1.7
522	UK	12	6.8											
531	C_8H_{16}?		7.4											
512	trimethylcyclopentane (C_5H_{16})		8.5											

California Water Labs
A Division of Condor Laboratories Inc

Modesto.....(209) 527-4050
Fresno.....(209) 291-5900
Sacramento.....(916) 448-5560
San Jose.....(408) 984-7999
Stockton.....(209) 465-0229

CASE NARRATIVE 7924

SAMPLES: EL-337, EL-338, EH-436, EH-437, EJ-490, EJ-491
EJ-492, EJ-493, EJ-494, EH-438, ET-104, & E-4786.

THE PESTICIDE ANALYSIS OF ALL THE LOW LEVEL SOILS IN THIS CASE INDICATE THE PRESENCE OF A MIXTURE OF PCB'S AND CHLORDANE. THE PREDOMINANT PCB IN EACH SAMPLE IS AR-1254 WITH SMALLER AMOUNTS OF AR-1260. ONLY AR-1254 IS REPORTED BECAUSE THE TWO AROCHLORS OVERLAP IN THE CHROMATOGRAM AND FOR PURPOSES OF QUANTITATION 50% OF THE PEAKS FORM ONLY THE MORE CONCENTRATED PCB COULD BE USED. THERE IS GOOD EVIDENCE FOR THE PRESENCE OF CHLORDANE. ALTHOUGH TWO PEAKS ARE MISSING IN THE SAMPLE CHROMATOGRAM COMPARED TO OUR STANDARD CHROMATOGRAM THE OVERALL CHROMATOGRAPHIC PATTERN OF CHLORDANE IS EVIDENT. THE DIFFERENCE COULD BE DUE TO THE ABSENCE OF CERTAIN ISOMERS IN THE SAMPLES. THE TIC SPECTRA FOR THE VOA RE-ANALYSIS OF SAMPLE EJ-492 ARE NOT INCLUDED BECAUSE THE DATA FILE WAS ACCIDENTALLY OVERWRITTEN IN THE SYSTEM COMPUTER. THE DIBUTYLCHLORENDATE WAS MASKED BY THE PCB'S IN SEVERAL OF THE SAMPLES, DILUTIONS OF THESE SAMPLES WAS REQUIRED WHICH RESULTED IN DILUTION OF THE DIBUTYLCHLORENDATE TO NON DETECTABLE LEVELS.

Bennett J Tyson 9/31/87

P.O. BOX 4249, MODESTO, CALIFORNIA 95352

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. 7924 Contract Laboratory CALIFORNIA WATER LABS. Contract No. 68-01-7277

Low _____ Medium X

	VOLATILE			SEMI-VOLATILE								PESTICIDE**
SMO TRAFFIC NO.	TOLUENE-D8 (81-117)	BFB (74-121)	1,2 DICHLORO-ETHANE-D4 (70-121)	NITRO-BENZENE-D5 (23-120)	2-FLUORO-BIPHENYL (30-115)	TERPHENYL-D14 (18-137)			PHENOL-D5 (24-113)	2-FLUORO-PHENOL (25-121)	2,4,6 TRIBROMO-PHENOL (19-122)	DIBUTYL-CHLORENDATE (20-150)
EH437				41	51	58			33	48	53	
EH438				40	48	55			36	45	53	
EJ490	104	120	99	88	82	94			82	77	82	
EJ490MS	102	116	107	44	81	83			93	48	88	
EJ490MSD	99	107	105	45	88	80			82	55	101	
EJ492				67	87	76			56	59	69	
ET104				42	52	61			36	48	60	
BLANK 0827				73	88	104			46	85	96	
BLANK 0829	104	108	98									

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: 0 out of 12 ; outside of QC limits

Semi-Volatiles: 0 out of 48 ; outside of QC limits

Pesticides: N/A out of N/A ; outside of QC limits

7/85

Comments:

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. 7924 Contract Laboratory CALIFORNIA WATER LABS. Contract No. 68-01-7277

Low X Medium _____

	VOLATILE			SEMI-VOLATILE								PESTICIDE
SMO TRAFFIC NO.	TOLUENE-D8 (81-117)	BFB (74-121)	1,2 DICHLORO-ETHANE-D4 (70-121)	NITRO-BENZENE-D5 (23-120)	2-FLUORO-BIPHENYL (30-115)	TERPHENYL-D14 (18-137)			PHENOL-D5 (24-113)	2-FLUORO-PHENOL (25-121)	2,4,6 TRIBROMO-PHENOL (19-122)	DIBUTYL-CHLORENDATE** (20-150)
EH 436												INT*
EH436/10												INT*
EH436/100												DL*
EH786/100												DL*
EJ 491												INT*
EJ 491/10												INT*
EJ491/100												DL*
EJ 491MS/10												INT*
EJ491MS/100												~~INT*~~ DL DLM
EJ491MSD/10												INT*
EJ491MSD/100												DL*
EJ 493												INT*
EJ 493/10												INT*
EJ 493/100												DL*
EJ493/1000												DL*
EJ494												INT*
EJ 494/10												128
EJ 494/100												DL*
EJ494/1000												DL*
~~EL 337~~												INT*
~~EL 337/10~~												93
~~EL 337/100~~												~~INT*~~
~~EL 337/1000~~												~~DL*~~

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 1 out of 1 ; outside of QC limits

Semi-Volatiles: 1 out of 1 ; outside of QC limits

Pesticides: 21 out of 23 ; outside of QC limits

7/88

Comments: DL* - DBC diluted out of sample.
INT* - DBC interfered with by PCB's contained in the sample.

FORM II

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. 7924 Contract Laboratory CALIFORNIA WATER LABS. Contract No. 68-01-7277

Low X Medium _____

	VOLATILE			SEMI-VOLATILE								PESTICIDE
EMO TRAFFIC NO.	TOLUENE-D8 (81-117)	BFB (74-121)	1,2 DICHLORO-ETHANE-D4 (70-121)	NITRO-BENZENE-D5 (23-120)	2-FLUORO-BIPHENYL (30-115)	TERPHENYL-D14 (18-137)			PHENOL-D5 (24-113)	2-FLUORO-PHENOL (25-121)	2,4,6 TRIBROMO-PHENOL (19-122)	DIBUTYL-CHLORENDATE** (20-150)
EL338												INT*
EL338/10												198*
EL338/100												DL*
EL338/1000												DL*
BLANK:LOW												49

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: _____ out of _____ ; outside of QC limits

Semi-Volatiles: _____ out of _____ ; outside of QC limits

Pesticides: 4 out of 5 ; outside of QC limits

7/86

Comments: DL*- DBC diluted out of sample

INT*- DBC interfered with by PCB's contained in sample. DCM

FORM III

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. 7924 Contract Laboratory CALIFORNIA WATER LABS. Contract No. 68-01-7277

Low _____ Medium X

SMO TRAFFIC NO.	VOLATILE: TOLUENE-D8 (81-117)	VOLATILE: BFB (74-121)	VOLATILE: 1,2 DICHLORO-ETHANE-D4 (70-121)	SEMI-VOLATILE: NITRO-BENZENE-D5 (23-120)	SEMI-VOLATILE: 2-FLUORO-BIPHENYL (30-115)	SEMI-VOLATILE: TERPHENYL-D14 (18-137)	SEMI-VOLATILE:	SEMI-VOLATILE:	SEMI-VOLATILE: PHENOL-D5 (24-113)	SEMI-VOLATILE: 2-FLUORO-PHENOL (25-121)	SEMI-VOLATILE: 2,4,6 TRIBROMO-PHENOL (19-122)	PESTICIDE: DIBUTYL-CHLORENDATE ** (20-150)
EH 437												121
EH437/10												114
EH438												183 **
EH 438/10												195 **
EJ 490												107
EJ 490/10												117
EJ 490/100												DL *
EJ490 MS												130
EJ490MS/10												145
EJ490MS/100												DL *
EJ490MSD												128
EJ490MSD/10												150
EJ490MSD/100												DL *
EJ492												148
EJ492/10												117
EJ492/100												DL *
ET104/10												170 **
ET104/100												DL *
BLANK:MED												98

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: — out of — ; outside of QC limits

Semi-Volatiles: — out of — ; outside of QC limits

Pesticides: 8 out of 19 ; outside of QC limits

7/86

Comments: DL - Dibutyl Chlorendate diluted out of sample.

FORM II

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 7924 **Contractor** California Water Labs **Contract No.** 68-01-7277

Low Level ✓ **Medium Level** _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. EJ-492	1,1-Dicholorethene	65	Ø	93	143	83	127	12	22	59-172
	Trichloroethene		2.8	84	124	75	111	11	24	62-137
	Chlorobenzene		Ø	77	118	75	115	2	21	60-133
	Toluene			100	154*	89	137	12	21	59-139
	Benzene			88	135	82	126	7	21	66-142
B/N SMO SAMPLE NO. EJ-491	1,2,4-Trichlorobenzene	8400	Ø	7100	84	6500	77	9	23	38-107
	Acenaphthene			7500	89	6500	77	14	19	31-137
	2,4 Dinitrotoluene			7600	90*	6900	82	9	47	28-89
	Pyrene		3000	14000	130	13000	119	9	36	35-142
	N-Nitrosodi-n-Propylamine		Ø	7400	88	6100	73	19	38	41-126
	1,4-Dichlorobenzene			6100	73	5000	60	20	27	28-104
ACID SMO SAMPLE NO. EJ-491	Pentachlorophenol	17,000	Ø	23000	135*	21000	124*	8	47	17-109
	Phenol			18000	106*	14000	82	25	35	26-90
	2-Chlorophenol			18000	106*	15000	88	18	50	25-102
	4-Chloro-3-Methylphenol			21000	124*	19000	112*	10	33	26-103
	4-Nitrophenol			20000	118*	18000	106	11	50	11-114
PEST SMO SAMPLE NO. EJ-491	Lindane **	67	Ø	145	216*	150	224*	4	50	46-127
	Heptachlor **			169	252*	95	141*	56*	31	35-130
	Aldrin **			199	297*	206	307*	3	43	34-132
	Dieldrin **	133		190	135*	150	112	18	52	31-134
	Endrin **			520	390*	500	376*	4	45	42-139
	4,4'-DDT **			570	428*	570	428*	0	50	30-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5 : outside QC limits
B/N 0 out of 6 : outside QC limits
ACID 0 out of 5 : outside QC limits
PEST 1 out of 6 : outside QC limits

RECOVERY: VOAs 1 out of 10 : outside QC limits
B/N 1 out of 12 : outside QC limits
ACID 7 out of 10 : outside QC limits
PEST 11 out of 12 : outside QC limits

Comments: ** - Pesticide MS/MSD Compounds are affected by PCB's contained in sample.

FORM III 8/85

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 7924 Contractor CALIFORNIA WATER LAB Contract No. 68-01-7277

Low Level _____ Medium Level X

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS * RPD	QC LIMITS * RECOVERY
VOA SMO SAMPLE NO. EJ-490	1,1-Dichloroethene	102000	Ø	91000	89	87000	85	5	22	59-172
	Trichloroethene		Ø	98000	96	95000	93	3	24	62-137
	Chlorobenzene		Ø	100000	98	94000	92	6	21	60-133
	Toluene		300000	380000	78	360000	59	28 *	21	59-139
	Benzene		6800	98000	89	96000	87	2	21	66-142
B/N SMO SAMPLE NO. EJ490	1,2,4-Trichlorobenzene	164000	Ø	130000	79	140000	85	7	23	38-107
	Acenaphthene			98000	60	100000	61	2	19	31-137
	2,4 Dinitrotoluene			110000	67	100000	61	9	47	28-89
	Pyrene			120000	73	110000	67	8	36	35-142
	N-Nitrosodi-n-Propylamine			69000	42	83000	51	19	38	41-126
	1,4-Dichlorobenzene			83000	51	95000	58	13	27	28-104
ACID SMO SAMPLE NO. EJ-490	Pentachlorophenol	327000		98000	30	0	0 *	100 *	47	17-109
	Phenol			270000	83	240000	73	13	35	26-90
	2-Chlorophenol			114000	35	140000	43	20	50	25-102
	4-Chloro-3-Methylphenol			320000	98	270000	83	16	33	26-103
	4-Nitrophenol			200000	62	160000	49	23	50	11-114
DW 2980 → PEST SMO SAMPLE NO. EJ490/100	Lindane	3300	Ø	2970	90	3150	95	5	50	46-127
	Heptachlor			3220	98	3500	106	8	31	35-130
	Aldrin			3170	96	3210	97	1	43	34-132
	Dieldrin	8200		6690	82	7120	87	6	38	31-134
	Endrin			7250	88	7660	93	6	46	42-139
	4,4'-DDT			7590	92	8400	102	10	50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 1 out of 5; outside QC limits
B/N 0 out of 6; outside QC limits
ACID ____ out of 5; outside QC limits
PEST ____ out of ____; outside QC limits

RECOVERY: VOAs 0 out of 10; outside QC limits
B/N 0 out of 12; outside QC limits
ACID ____ out of 10; outside QC limits
PEST ____ out of ____; outside QC limits

Comments: Pentachlorophenol was not found in the MSD

FORM III

METHOD BLANK SUMMARY

Case No. 7924 Region 5 Contractor CALIFORNIA WATER LABS. Contract No. 68-01-7277

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (NSL, TIC OR UNKNOWN)	CONC.	UNITS	CRDL
BLANK 0825	8/25/87	VOA	SOIL	L	#1	67-64-1	ACETONE	6.7	UG/KG	10.0
						108-10-1	4-METHYL-2-PENTANONE	4.2	↓	↓
						593-75-9	ISOCYANO-METHANE	9.2	↓	—
BLANK 0826	8/26/87	VOA	SOIL	L	#1	67-64-1	ACETONE	14.	UG/KG	10.0
						3996-61-0	(Z)-5,5 DIMETHYL-2-HEXENE	1.7	↓	—
						593-75-9	ISOCYANO METHANE	8.9	↓	—
BLANK 0829	8/29/87	VOA	SOIL	M	#1	67-64-1	ACETONE	590	UG/KG	1000
BLANK 0830	8/30/87	VOA	SOIL	L	#1	—	NONE FOUND	—	—	—
BLANK 0827	8/28/87	BNA	SOIL	M	#2	117-81-7	bis(2-ETHYLHEXYL) PHTHALATE	7600	UG/KG	19800.
						—	UNKNOWN HYDROCARBON	48000	↓	—
						—	UNKNOWN	4600	↓	—
BLANK 0828	8/28/87	BNA	SOIL	L	#2	2216-34-4	4-METHYL OCTANE	370	UG/KG	—
						3178-29-8	4-PROPYL HEPTANE	580	↓	—

Comments:

METHOD BLANK SUMMARY

Case No. 7924 Region 5 Contractor CALIFORNIA WATER LABS Contract No. 68-01-7277

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (HSL, TIC OR UNKNOWN)	CONC.	UNITS	CRQL
BLANK: LOW	9/25/87	PEST	SOIL	L	3740-7440	—	NONE FOUND	—	UG/KG	—
BLANK: MED	9/3/87	PEST	SOIL	M	3740-7440	—	NONE FOUND	—	UG/KG	—

Comments:

Sample Number
E-4786

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: CAL WATER LABS
Case No: 7924
Lab Sample ID No: C00286VOA
QC Report No:
Sample Matrix: SOIL
Contract No: 68-01-7277
Data Release Authorized By: Ben Tyson
Date Sample Received: 08/20/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared:
Date Analyzed: 08/30/87
Conc/Dil Factor: 1. pH 8.01
Percent Moisture: (Not Decanted) 20.8

CAS Number		ug/kg	CAS Number		ug/kg
74-87-3	Chloromethane	13. U	78-87-5	1,2-Dichloropropane	6.3U
74-83-9	Bromomethane	13. U	10061-02-6	Trans-1,3-Dichloropropene	6.3U
75-01-4	Vinyl Chloride	13. U	79-01-6	Trichloroethene	150.
75-00-3	Chloroethane	13. U	124-48-1	Dibromochloromethane	6.3U
75-09-2	Methylene Chloride	6.3U	79-00-5	1,1,2-Trichloroethane	17.
67-64-1	Acetone	45 DL17	71-43-2	Benzene	6.3U
75-15-0	Carbon Disulfide	6.3U	10061-01-5	cis-1,3-Dichloropropene	6.3U
75-35-4	1,1-Dichloroethene	6.3U	110-75-8	2-Chloroethylvinylether	13. U
75-35-3	1,1-Dichloroethane	16. >DL	75-25-2	Bromoform	6.3U
156-60-5	Trans-1,2-Dichloroethene	16.	591-78-6	2-Hexanone	13. U
67-66-3	Chloroform	6.3U	108-10-1	4-Methyl-2-Pentanone	13. U
107-06-2	1,2-Dichloroethane	6.3U	127-18-4	Tetrachloroethene	110
78-93-3	2-Butanone	13. U	79-34-5	1,1,2,2-Tetrachloroethane	13. U
71-55-6	1,1,1-Trichloroethane	24 >3DL	108-88-3	Toluene	19
56-23-5	Carbon Tetrachloride	6.3U	108-90-7	Chlorobenzene	6.3U
108-05-4	Vinyl Acetate	13. U	100-41-4	Ethylbenzene	9.9
75-27-4	Bromodichloromethane	6.3U	100-42-5	Styrene	6.3U
				Total Xylenes	35.

U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

Form 1

Laboratory Name: CAL WATER LABS
Case No: 7924

Sample Number
E-4786

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 08/28/87
Date Analyzed: 09/04/87
Dil Factor: 5.556
Percent Moisture: (Decanted)

GPC Cleanup X Yes ___ No
Separatory Funnel Extraction ___ Yes
Continuous Liquid-Liquid Extraction ___ Yes

CAS Number		UG/KG	CAS Number		UG/KG
108-95-2	Phenol	2300. U	83-32-9	Acenaphthene	2300. U
111-44-4	bis(2-Chloroethyl)Ether	2300. U	51-28-5	2,4-Dinitrophenol	11000. U
95-57-8	2-Chlorophenol	2300. U	100-02-7	4-Nitrophenol	11000. U
541-73-1	1,3-Dichlorobenzene	2300. U	132-64-9	Dibenzofuran	2300. U
106-46-7	1,4-Dichlorobenzene	2300. U	121-14-2	2,4-Dinitrotoluene	2300. U
100-51-6	Benzyl Alcohol	2300. U	606-20-2	2,6-Dinitrotoluene	2300. U
95-50-1	1,2-Dichlorobenzene	2300. U	84-66-2	Diethylphthalate	2300. U
95-48-7	2-Methylphenol	2300. U	7005-72-3	4-Chlorophenyl-phenylether	2300. U
39638-32-9	bis(2-Chloroisopropyl)Ether	2300. U	86-73-7	Fluorene	2300. U
106-44-5	4-Methylphenol	2300. U	100-10-6	4-Nitroaniline	11000. U
621-64-7	N-Nitroso-Di-n-Propylamine	2300. U	534-52-1	4,6-Dinitro-2-Methylphenol	11000. U
67-72-1	Hexachloroethane	2300. U	86-30-6	N-Nitrosodiphenylamine (1)	2300. U
98-95-3	Nitrobenzene	2300. U	101-55-3	4-Bromophenyl-phenylether	2300. U
78-59-1	Isophorone	1800. J	118-74-1	Hexachlorobenzene	2300. U
88-75-5	2-Nitrophenol	2300. U	87-86-5	Pentachlorophenol	11000. U
105-67-9	2,4-Dimethylphenol	2300. U	85-01-8	Phenanthrene	2300. U
65-85-0	Benzoic Acid	11000. U	120-12-7	Anthracene	2300. U
111-91-1	bis(2-Chloroethoxy)Methane	2300. U	84-74-2	Di-n-Butylphthalate	2300. U
120-83-2	2,4-Dichlorophenol	2300. U	206-44-0	Fluoranthene	4500.
120-82-1	1,2,4-Trichlorobenzene	2300. U	129-00-0	Pyrene	3700.
91-20-3	Naphthalene	860. J	85-68-7	Butylbenzylphthalate	2300. U
106-47-8	4-Chloroaniline	2300. U	91-94-1	3,3'-Dichlorobenzidine	4600. U
87-68-3	Hexachlorobutadiene	2300. U	56-55-3	Benzo(a)Anthracene	2300. U
59-50-7	4-Chloro-3-Methylphenol	2300. U	117-81-7	bis(2-Ethylhexyl)Phthalate	17000.
91-57-6	2-Methylnaphthalene	570. J	218-01-9	Chrysene	2400.
77-47-4	Hexachlorocyclopentadiene	2300. U	117-84-0	Di-n-Octyl Phthalate	2300. U
88-06-2	2,4,6-Trichlorophenol	2300. U	205-99-2	Benzo(b)Fluoranthene	4900.
95-95-4	2,4,5-Trichlorophenol	11000. U	207-08-9	Benzo(k)Fluoranthene	2300. U
91-58-7	2-Chloronaphthalene	2300. U	50-32-8	Benzo(a)Pyrene	3300.
88-74-4	2-Nitroaniline	11000. U	193-39-5	Indeno(1,2,3-cd)Pyrene	2300. U
131-11-3	Dimethyl Phthalate	2300. U	53-70-3	Dibenz(a,h)Anthracene	2300. U
208-96-8	Acenaphthylene	580. J	191-24-2	Benzo(g,h,i)Perylene	2300. U
99-09-2	3-Nitroaniline	11000. U			

(1) - Cannot be separated from diphenylamine

Form I

Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EH 7861/100

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed 9/14/87

Conc/Dil Factor: 100

Percent Moisture (decanted) _____

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	1000.U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	2000.U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	10000.U
53494-70-5	Endrin Ketone	2000.U
57-74-9	Chlordane	12800.~~7000~~U
8001-35-2	Toxaphene	20000.U
12674-11-2	Aroclor-1016	10000.U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	11500.
11096-82-5	Aroclor-1260	20000.U

20000 D.L.

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.00 g V_t 2000 µl V_i 5 µl

Laboratory Name: CALIFORNIA WATER LABS

Case No: 7924

Sample Number: E-4786

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. —	UNKNOWN	VOA	282	9.5
2. —	↓		522	12
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10. —	UNKNOWN	BNA	440	22500
11. —	↓		1085	1100
12. —			1373	2550
13. 88-19-7	2-METHYL-BENZENE SULFONAMIDE		1435	3000
14. 70-55-3	4-METHYL-BENZENE SULFONAMIDE		1473	6000
15. —	UNKNOWN		1670	7000
16. 17851-53-5	BUTYL 2-METHOXYPROPYL ESTER -		1721	3150
17.	1,2-BENZENEDICARBOXYLIC ACID			
18. 91-76-9	6-AZIDO-1,3,5-TRIAZINE-2,4-DIAMINE		1779	6500
19. 78-42-2	TRIS(2-ETHYLHEXYL)ESTER PHOSPHORIC ACID		2089	4300
20. —	UNKNOWN		2065	3750
21. —	↓		2168	4000
22. —	UNKNOWN PHTALATE		2256	3650
23. —	UNKNOWN		2320	3000
24. 205-82-3	BENZO [J] FLUORANTHENE		2353	4000
25. 205-99-2	BENZ [E] ACEPHENANTHRENE		2363	4350
26. —	UNKNOWN		2401	3350
27. —	↓		2585	2650
28. 191-26-4	DIBENZO [DE,MNO] CHRYSENE		2628	2650
29. —	UNKNOWN	↓	2702	3000
30.				

Sample Number
EH-436

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: CAL WATER LABS
Case No: 7924
Lab Sample ID No: C00277V0
QC Report No:
Sample Matrix: SOIL
Contract No: 68-01-7277
Data Release Authorized By: Ben Tyson
Date Sample Received: 08/19/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared:
Date Analyzed: 08/25/87
Conc/Dil Factor: 1. pH 8.43
Percent Moisture: (Not Decanted) 15.9

CAS Number		ug/kg	CAS Number		ug/kg
74-87-3	Chloromethane	12. U	78-87-5	1,2-Dichloropropane	5.9U
74-83-9	Bromomethane	12. U	10061-02-6	Trans-1,3-Dichloropropene	5.9U
75-01-4	Vinyl Chloride	12. U	79-01-6	Trichloroethene	5.9U
75-00-3	Chloroethane	12. U	124-48-1	Dibromochloromethane	5.9U
75-09-2	Methylene Chloride	5.9U	79-00-5	1,1,2-Trichloroethane	5.9U
67-64-1	Acetone	25. B	71-43-2	Benzene	5.9U
75-15-0	Carbon Disulfide	5.9U	10061-01-5	cis-1,3-Dichloropropene	5.9U
75-35-4	1,1-Dichloroethene	5.9U	110-75-8	2-Chloroethylvinylether	12.U
75-35-3	1,1-Dichloroethane	5.9U	75-25-2	Bromoform	5.9U
156-60-5	Trans-1,2-Dichloroethene	5.9U	108-10-1	4-Methyl-2-Pentanone	12.U
67-66-3	Chloroform	5.9U	591-78-6	2-Hexanone	21. B
107-06-2	1,2-Dichloroethane	5.9U	127-18-4	Tetrachloroethene	5.9U
78-93-3	2-Butanone	12. U	79-34-5	1,1,2,2-Tetrachloroethane	12.U
71-55-6	1,1,1-Trichloroethane	5.9U	108-88-3	Toluene	5.9U
56-23-5	Carbon Tetrachloride	5.9U	108-90-7	Chlorobenzene	5.9U
108-05-4	Vinyl Acetate	12. U	100-41-4	Ethylbenzene	5.9U
75-27-4	Bromodichloromethane	5.9U	100-42-5	Styrene	5.9U
				Total Xylenes	5.9U

B - Compound was detected in the QC blank.
U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

Form I

Laboratory Name: CAL WATER LABS
Case No: 7924

Sample Number
EH-436

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 08/28/87
Date Analyzed: 09/02/87
Dil Factor: 5.556
Percent Moisture: (Decanted) _____

GPC Cleanup X Yes ___ No
Separatory Funnel Extraction ___ Yes
Continuous Liquid-Liquid Extraction ___ Yes

CAS Number		UG/KG	CAS Number		UG/KG
108-95-2	Phenol	2200. U	83-32-9	Acenaphthene	2200. U
111-44-4	bis(2-Chloroethyl)Ether	2200. U	51-28-5	2,4-Dinitrophenol	11000. U
95-57-8	2-Chlorophenol	2200. U	100-02-7	4-Nitrophenol	11000. U
541-73-1	1,3-Dichlorobenzene	2200. U	132-64-9	Dibenzofuran	2200. U
106-46-7	1,4-Dichlorobenzene	2200. U	121-14-2	2,4-Dinitrotoluene	2200. U
100-51-6	Benzyl Alcohol	2200. U	606-20-2	2,6-Dinitrotoluene	2200. U
95-50-1	1,2-Dichlorobenzene	2200. U	84-66-2	Diethylphthalate	2200. U
95-48-7	2-Methylphenol	2200. U	7005-72-3	4-Chlorophenyl-phenylether	2200. U
39638-32-9	bis(2-Chloroisopropyl)Ether	2200. U	86-73-7	Fluorene	2200. U
106-44-5	4-Methylphenol	2200. U	100-10-6	4-Nitroaniline	11000. U
621-64-7	N-Nitroso-Di-n-Propylamine	2200. U	534-52-1	4,6-Dinitro-2-Methylphenol	11000. U
67-72-1	Hexachloroethane	2200. U	86-30-6	N-Nitrosodiphenylamine (1)	2200. U
98-95-3	Nitrobenzene	2200. U	101-55-3	4-Bromophenyl-phenylether	2200. U
78-59-1	Isophorone	2200. U	118-74-1	Hexachlorobenzene	2200. U
88-75-5	2-Nitrophenol	2200. U	87-86-5	Pentachlorophenol	11000. U
105-67-9	2,4-Dimethylphenol	2200. U	85-01-8	Phenanthrene	3800.
65-85-0	Benzoic Acid	11000. U	120-12-7	Anthracene	2200. U
111-91-1	bis(2-Chloroethoxy)Methane	2200. U	84-74-2	Di-n-Butylphthalate	2200. U
120-83-2	2,4-Dichlorophenol	2200. U	206-44-0	Fluoranthene	8900.
120-82-1	1,2,4-Trichlorobenzene	2200. U	129-00-0	Pyrene	9700.
91-20-3	Naphthalene	2200. U	85-68-7	Butylbenzylphthalate	2200. U
106-47-8	4-Chloroaniline	2200. U	91-94-1	3,3'-Dichlorobenzidine	4400. U
87-68-3	Hexachlorobutadiene	2200. U	56-55-3	Benzo(a)Anthracene	5800.
59-50-7	4-Chloro-3-Methylphenol	2200. U	117-81-7	bis(2-Ethylhexyl)Phthalate	5900.
91-57-6	2-Methylnaphthalene	2200. U	218-01-9	Chrysene	5500.
77-47-4	Hexachlorocyclopentadiene	2200. U	117-84-0	Di-n-Octyl Phthalate	2200. U
88-06-2	2,4,6-Trichlorophenol	2200. U	205-99-2	Benzo(b)Fluoranthene	7400.
95-95-4	2,4,5-Trichlorophenol	11000. U	207-08-9	Benzo(k)Fluoranthene	2200. U
91-58-7	2-Chloronaphthalene	2200. U	50-32-8	Benzo(a)Pyrene	4400.
88-74-4	2-Nitroaniline	11000. U	193-39-5	Indeno(1,2,3-cd)Pyrene	2200. U
131-11-3	Dimethyl Phthalate	2200. U	53-70-3	Dibenz(a,h)Anthracene	2200. U
208-96-8	Acenaphthylene	2200. U	191-24-2	Benzo(g,h,i)Perylene	2200. U
99-09-2	3-Nitroaniline	11000. U			

(1) - Cannot be separated from diphenylamine

Laboratory Name CALIFORNIA WATER LABS

Case No 7724

Sample Number EH 436

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed: 9/18/87

Conc/Dil Factor: 1

Percent Moisture (decanted) _____

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	10.U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	↓
60-57-1	Dieldrin	20.U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	↓
72-43-5	Methoxychlor	100.U
53494-70-5	Endrin Ketone	20.U
57-74-9	Chlordane	100.U
8001-35-2	Toxaphene	200.U
12674-11-2	Aroclor-1016	100.U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	↓
11097-69-1	Aroclor-1254	200.U
11096-82-5	Aroclor-1260	↓

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 29.94 V_t 2000 µl V_i 5 µl

Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EH436/10

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed: 9/17/87

Conc/(Dil Factor): 10

Percent Moisture (decanted) _____

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	95.U
319-85-7	Beta-BHC	↓
319-86-8	Delta-BHC	↓
58-89-9	Gamma-BHC (Lindane)	↓
76-44-8	Heptachlor	↓
309-00-2	Aldrin	↓
1024-57-3	Heptachlor Epoxide	↓
959-98-8	Endosulfan I	↓
60-57-1	Dieldrin	190.U
72-55-9	4, 4'-DDE	↓
72-20-8	Endrin	↓
33213-65-9	Endosulfan II	↓
72-54-8	4, 4'-DDD	↓
1031-07-8	Endosulfan Sulfate	↓
50-29-3	4, 4'-DDT	↓
72-43-5	Methoxychlor	950.U
53494-70-5	Endrin Ketone	190.U
57-74-9	Chlordane	950.U
8001-35-2	Toxaphene	1900.U
12674-11-2	Aroclor-1016	950.U
11104-28-2	Aroclor-1221	↓
11141-16-5	Aroclor-1232	↓
53469-21-9	Aroclor-1242	↓
12672-29-6	Aroclor-1248	↓
11097-69-1	Aroclor-1254	1900.U
11096-82-5	Aroclor-1260	↓

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 29.94 V_t 2000 µl V_i 5 µl

Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EH 436/100

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared: 8/28/87

Date Analyzed: 9/24/87

Conc/Dil Factor: 100

Percent Moisture (decanted) _____

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	1000.U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	2000.U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	~~400.J~~ 2000.U
33213-65-9	Endosulfan II	2000.U
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	10000.U
53494-70-5	Endrin Ketone	2000.U
57-74-9	Chlordane	(6180.) 5000 D.L.
8001-35-2	Toxaphene	20000.U
12674-11-2	Aroclor-1016	10000.U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	15030.J 20000 D.L.
11096-82-5	Aroclor-1260	20000.U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ W_s 29.96 V_t 2000 µl V_i 5 µl

Laboratory Name: CALIFORNIA WATER LABS

Case No: 7924

Sample Number: EH-436

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	593-75-9	Isocyano-Methane	VOA	66	7.2
2.	—	unknown		104	7.9
3.	—			447	12
4.	—			522	6.8
5.	—			531	7.4
6.	16883-48-0	(1.Alpha,2.Beta.,4.Alpha.)-		542	8.5
7.		1,2,4-Trimethyl-cyclopentane			
8.					
9.					
10.					
11.	873-94-9	3,3,5-Trimethyl-Cyclohexanone	BNA	743	1600
12.	—	unknown		863	2200
13.	—	unknown hydrocarbon		1402	1500
14.	—			1668	2000
15.	—			1749	1900
16.	—	unknown		1970	1900
17.	—			2170	2600
18.	—			2305	9600
19.	205-99-2	Benz[E]Acepheranthrylene		2322	2500
20.	205-82-3	Benzo[J]Fluoranthene		2354	5500
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

2210

Sample Number
EH-437

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: CAL WATER LABS
Case No: 7924
Lab Sample ID No: C00278V0
QC Report No:
Sample Matrix: SOIL
Contract No: 68-01-7277
Data Release Authorized By: Ben Tyson
Date Sample Received: 08/19/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared:
Date Analyzed: 08/25/87
Conc/Dil Factor: 1. pH 8.54
Percent Moisture: (Not Decanted) 16.5

CAS Number		µg/Kg	CAS Number		µg/Kg
74-87-3	Chloroethane	12. U	78-87-5	1,2-Dichloropropane	6.0U
74-83-9	Bromoethane	12. U	10061-02-6	Trans-1,3-Dichloropropene	6.0U
75-01-4	Vinyl Chloride	12. U	79-01-6	Trichloroethene	6.0U
75-00-3	Chloroethane	12. U	124-48-1	Dibromochloromethane	6.0U
75-09-2	Methylene Chloride	~~6.0U~~	79-00-5	1,1,2-Trichloroethane	6.0U
67-64-1	Acetone	16. B	71-43-2	Benzene	6.0U
75-15-0	Carbon Disulfide	6.0U	10061-01-5	cis-1,3-Dichloropropene	6.0U
75-35-4	1,1-Dichloroethene	6.0U	110-75-8	2-Chloroethylvinylether	12. U
75-35-3	1,1-Dichloroethane	6.0U	75-25-2	Bromoform	6.0U
156-60-5	Trans-1,2-Dichloroethene	6.0U	108-10-1	4-Methyl-2-Pentanone	12. U
67-66-3	Chloroform	6.0U	591-78-6	2-Hexanone	12 U
107-06-2	1,2-Dichloroethane	6.0U	127-18-4	Tetrachloroethene	6.0U
78-93-3	2-Butanone	12. U	79-34-5	1,1,2,2-Tetrachloroethane	12. U
71-55-6	1,1,1-Trichloroethane	6.0U	108-88-3	Toluene	6.0U
56-23-5	Carbon Tetrachloride	6.0U	108-90-7	Chlorobenzene	6.0U
108-05-4	Vinyl Acetate	12. U	100-41-4	Ethylbenzene	6.0U
75-27-4	Bromodichloromethane	6.0U	100-42-5	Styrene	6.0U
				Total Xylenes	6.0U

B - Compound was detected in the QC blank.
U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

Form I

Sample Number
EH-437 RE

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: CAL WATER LABS
Lab Sample ID No: C00278V02
Sample Matrix: SOIL
Data Release Authorized By: Bill Tyson

Case No: 7924
QC Report No:
Contract No: 68-01-7277
Date Sample Received: 08/19/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared:
Date Analyzed: 08/25/87
Conc/Dil Factor: 1. pH 8.54
Percent Moisture: (Not Decanted) 16.5

CAS Number		µg/kg	CAS Number		µg/kg
74-87-3	Chloromethane	12. U	78-87-5	1,2-Dichloropropane	6.0U
74-83-9	Bromomethane	12. U	10061-02-6	Trans-1,3-Dichloropropene	6.0U
75-01-4	Vinyl Chloride	12. U	79-01-6	Trichloroethene	6.0U
75-00-3	Chloroethane	12. U	124-48-1	Dibromochloromethane	6.0U
75-09-2	Methylene Chloride	6.0U	79-00-5	1,1,2-Trichloroethane	6.0U
67-64-1	Acetone	24. B	71-43-2	Benzene	6.0U
75-15-0	Carbon Disulfide	6.0U	10061-01-5	cis-1,3-Dichloropropene	6.0U
75-35-4	1,1-Dichloroethene	6.0U	110-75-8	2-Chloroethylvinylether	12. U
75-35-3	1,1-Dichloroethane	6.0U	75-25-2	Bromoform	6.0U
156-60-5	Trans-1,2-Dichloroethene	6.0U	108-10-1	4-Methyl-2-Pentanone	12. U
67-66-3	Chloroform	6.0U	591-78-6	2-Hexanone	12 ~~UEU~~ Bj
107-06-2	1,2-Dichloroethane	6.0U	127-18-4	Tetrachloroethene	6.0U
78-93-3	2-Butanone	12. U	79-34-5	1,1,2,2-Tetrachloroethane	12. U
71-55-6	1,1,1-Trichloroethane	6.0U	108-88-3	Toluene	6.0U
56-23-5	Carbon Tetrachloride	6.0U	108-90-7	Chlorobenzene	6.0U
108-05-4	Vinyl Acetate	12. U	100-41-4	Ethylbenzene	6.0U
75-27-4	Bromodichloromethane	6.0U	100-42-5	Styrene	6.0U
				Total Xylenes	6.0U

B - Compound was detected in the QC blank.
U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

Form I

Laboratory Name: CAL WATER LABS

Case No: 7924

Sample Number
EH437

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: MEDIUM

Date Extracted/Prepared: 08/27/87

Date Analyzed: 09/01/87

Dil Factor: 4.000

Percent Moisture: (Decanted) _____

GPC Cleanup ___ Yes _X_ No

Separatory Funnel Extraction ___ Yes

Continuous Liquid-Liquid Extraction ___ Yes

CAS Number		ug/kg	CAS Number		ug/kg
108-95-2	Phenol	95000.U	83-32-9	Acenaphthene	95000.U
111-44-4	Bis(2-Chloroethyl)Ether	95000.U	51-28-5	2,4-Dinitrophenol	460000U
95-57-8	2-Chlorophenol	95000.U	100-02-7	4-Nitrophenol	460000U
541-73-1	1,3-Dichlorobenzene	95000.U	132-64-9	Dibenzofuran	95000.U
106-46-7	1,4-Dichlorobenzene	95000.U	121-14-2	2,4-Dinitrotoluene	95000.U
100-51-6	Benzyl Alcohol	95000.U	606-20-2	2,6-Dinitrotoluene	95000.U
95-50-1	1,2-Dichlorobenzene	95000.U	84-66-2	Diethylphthalate	95000.U
95-48-7	2-Methylphenol	95000.U	7005-72-3	4-Chlorophenyl-phenylether	95000.U
108-60-1	Bis(2-Chloroisopropyl)Ether	95000.U	86-73-7	Fluorene	95000.U
106-44-5	4-Methylphenol	95000.U	100-10-6	4-Nitroaniline	460000U
621-64-7	N-Nitroso-Di-n-Propylamine	95000.U	534-52-1	4,6-Dinitro-2-Methylphenol	460000U
67-72-1	Hexachloroethane	95000.U	86-30-6	N-Nitrosodiphenylamine (1)	95000.U
98-95-3	Nitrobenzene	95000.U	101-55-3	4-Bromophenyl-phenylether	95000.U
78-59-1	Isophorone	95000.U	118-74-1	Hexachlorobenzene	95000.U
88-75-5	2-Nitrophenol	95000.U	87-86-5	Pentachlorophenol	460000U
105-67-9	2,4-Dimethylphenol	95000.U	85-01-8	Phenanthrene	95000.U
65-85-0	Benzoic Acid	460000U	120-12-7	Anthracene	95000.U
111-91-1	Bis(2-Chloroethoxy)Methane	95000.U	84-74-2	Di-n-Butylphthalate	95000.U
120-83-2	2,4-Dichlorophenol	95000.U	206-44-0	Fluoranthene	95000.U
120-82-1	1,2,4-Trichlorobenzene	95000.U	129-00-0	Pyrene	95000.U
91-20-3	Naphthalene	95000.U	85-68-7	Butylbenzylphthalate	95000.U
106-47-8	4-Chloroaniline	95000.U	91-94-1	3,3'-Dichlorobenzidine	190000U
87-68-3	Hexachlorobutadiene	95000.U	56-55-3	Benzo(a)Anthracene	95000.U
59-50-7	4-Chloro-3-Methylphenol	95000.U	117-81-7	bis(2-Ethylhexyl)Phthalate	32000.J
91-57-6	2-Methylnaphthalene	95000.U	218-01-9	Chrysene	95000.U
77-47-4	Hexachlorocyclopentadiene	95000.U	117-84-0	Di-n-Octyl Phthalate	95000.U
88-06-2	2,4,6-Trichlorophenol	95000.U	205-99-2	Benzo(b)Fluoranthene	95000.U
95-95-4	2,4,5-Trichlorophenol	460000U	207-08-9	Benzo(k)Fluoranthene	95000.U
91-58-7	2-Chloronaphthalene	95000.U	50-32-8	Benzo(a)Pyrene	95000.U
88-74-4	2-Nitroaniline	460000U	193-39-5	Indeno(1,2,3-cd)Pyrene	95000.U
131-11-3	Dimethyl Phthalate	95000.U	53-70-3	Dibenz(a,h)Anthracene	95000.U
208-96-8	Acenaphthylene	95000.U	191-24-2	Benzo(g,h,i)Perylene	95000.U
99-09-2	3-Nitroaniline	460000U			

(1) - Cannot be separated from diphenylamine

Laboratory Name CALIFORNIA WATER LABS.

Case No 7424

Sample Number EH 437

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8/28/87

Date Analyzed: 9/3/87

Conc/Dil Factor: 1

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	140. U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	280. U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	1400. U
53494-70-5	Endrin Ketone	280. U
57-74-9	Chlordane	1400. U
8001-35-2	Toxaphene	2800. U
12674-11-2	Aroclor-1016	1400. U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	2800. U
11096-82-5	Aroclor-1260	1460. J

2800 D.L.

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ W_s 2.00 g V_t 2000 µl V_i 5 µl

Laboratory Name CALIFORNIA WATER LABS.

Case No. 7724

Sample Number EH437/10

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8/28/87

Date Analyzed: 9/3/87

Conc/Dil Factor: 10

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/kg (Circle One)
319-84-6	Alpha-BHC	1400. U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	2900 U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	1634. J
33213-65-9	Endosulfan II	2900 U
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	14000. U
53494-70-5	Endrin Ketone	2900. U
57-74-9	Chlordane	4380 J
8001-35-2	Toxaphene	29000. U
12674-11-2	Aroclor-1016	14000. U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	29000. U
11096-82-5	Aroclor-1260	

14500 D.L.

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 2.0 V_t 2000 µl V_i 5 µl

Laboratory Name: CALIFORNIA WATER LABS

Case No: 7924

Sample Number: EH-437

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 593-75-9	ISOCYANO METHANE	VOA	465	8.4
2. 39761-61-0	(Z)-5,5-DIMETHYL-2-HEXANE	↓	446	6
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.	UNKNOWN	BNA	1840	12700
12.	↓	↓	2306	3400
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Laboratory Name: CALIFORNIA WATER LABS

Case No: 7924

Sample Number
EH-437RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 39761-61-0	(Z)-5,5-Dimethyl-2-Hexene	VOA	446	16
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Sample Number
EH-438

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: CAL WATER LABS
Lab Sample ID No: C00284VOA
Sample Matrix: SOIL
Data Release Authorized By: Ben Tyson

Case No: 7924
QC Report No:
Contract No: 68-01-7277
Date Sample Received: 08/20/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared:
Date Analyzed: 08/30/87
Conc/Dil Factor: 1. pH 8.11
Percent Moisture: (Not Decanted) 12.4

CAS Number		ug/kg	CAS Number		ug/kg
74-87-3	Chloromethane	11. U	78-87-5	1,2-Dichloropropane	5.7U
74-83-9	Bromomethane	11. U	10061-02-6	Trans-1,3-Dichloropropene	5.7U
75-01-4	Vinyl Chloride	11. U	79-01-6	Trichloroethene	5.7U
75-00-3	Chloroethane	11. U	124-48-1	Dibromochloromethane	5.7U
75-09-2	Methylene Chloride	5.7U	79-00-5	1,1,2-Trichloroethane	5.7U
67-64-1	Acetone	210.	71-43-2	Benzene	5.7U
75-15-0	Carbon Disulfide	5.7U	10061-01-5	cis-1,3-Dichloropropene	5.7U
75-35-4	1,1-Dichloroethene	5.7U	110-75-8	2-Chloroethylvinylether	11. U
75-34-3	1,1-Dichloroethane	5.7U	75-25-2	Bromoform	5.7U
156-60-5	Trans-1,2-Dichloroethene	5.7U	591-78-6	2-Hexanone	11. U
67-66-3	Chloroform	5.7U	108-10-1	4-Methyl-2-Pentanone	11. U
107-06-2	1,2-Dichloroethane	5.7U	127-18-4	Tetrachloroethene	5.7U
78-93-3	2-Butanone	11. U	79-34-5	1,1,2,2-Tetrachloroethane	11. U
71-55-6	1,1,1-Trichloroethane	5.7U	108-88-3	Toluene	5.7U
56-23-5	Carbon Tetrachloride	5.7U	108-90-7	Chlorobenzene	5.7U
108-05-4	Vinyl Acetate	11. U	100-41-4	Ethylbenzene	5.7U
75-27-4	Bromodichloromethane	5.7U	100-42-5	Styrene	5.7U
				Total Xylenes	5.7U

U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

Form I

ZDDDDDDDDDDDDDD?
3 Sample Number 3
3 EH-438 RE 3
@DDDDDDDDDDDDDDY

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: CAL WATER LABS
Lab Sample ID No: C00284V06
Sample Matrix: SOIL
Data Release Authorized By: Ben Tyson

Case No: 7924
QC Report No:
Contract No: 68-01-7277
Date Sample Received: 08/20/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared:
Date Analyzed: 08/30/87
Conc/Dil Factor: 1. pH 8.11
Percent Moisture: (Not Decanted) 12.4

CAS Number		ug/kg	CAS Number		ug/kg
74-87-3	Chloromethane	11. U	78-87-5	1,2-Dichloropropane	5.7U
74-83-9	Bromomethane	11. U	10061-02-6	Trans-1,3-Dichloropropene	5.7U
75-01-4	Vinyl Chloride	11. U	79-01-6	Trichloroethene	5.7U
75-00-3	Chloroethane	11. U	124-48-1	Dibromochloromethane	5.7U
75-09-2	Methylene Chloride	5.7U	79-00-5	1,1,2-Trichloroethane	5.7U
67-64-1	Acetone	19.	71-43-2	Benzene	5.7U
75-15-0	Carbon Disulfide	16 ~~5.7U~~	10061-01-5	cis-1,3-Dichloropropene	5.7U
75-35-4	1,1-Dichloroethene	5.7U	110-75-8	2-Chloroethylvinylether	11. U
75-34-3	1,1-Dichloroethane	5.7U	75-25-2	Bromoform	5.7U
156-60-5	Trans-1,2-Dichloroethene	5.7U	591-78-6	2-Hexanone	11. U
67-66-3	Chloroform	5.7U	108-10-1	4-Methyl-2-Pentanone	11. U
107-06-2	1,2-Dichloroethane	5.7U	127-18-4	Tetrachloroethene	5.7U
78-93-3	2-Butanone	11. U	79-34-5	1,1,2,2-Tetrachloroethane	11. U
71-55-6	1,1,1-Trichloroethane	5.7U	108-88-3	Toluene	5.7U
56-23-5	Carbon Tetrachloride	5.7U	108-90-7	Chlorobenzene	5.7U
108-05-4	Vinyl Acetate	11. U	100-41-4	Ethylbenzene	5.7U
75-27-4	Bromodichloromethane	5.7U	100-42-5	Styrene	5.7U
				Total Xylenes	5.7U

U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

Form I

Laboratory Name: CAL WATER LABS
Case No: 7924

Sample Number
EH438

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: MEDIUM
Date Extracted/Prepared: 08/27/87
Date Analyzed: 09/01/87
Dil Factor: 4.000
Percent Moisture: (Decanted) _____

GPC Cleanup ___ Yes _X_ No
Separatory Funnel Extraction ___ Yes
Continuous Liquid-Liquid Extraction ___ Yes

CAS Number		ug/kg	CAS Number		ug/kg
108-95-2	Phenol	90000.U	83-32-9	Acenaphthene	90000.U
111-44-4	bis(2-Chloroethyl)Ether	90000.U	51-28-5	2,4-Dinitrophenol	440000U
95-57-8	2-Chlorophenol	90000.U	100-02-7	4-Nitrophenol	440000U
541-73-1	1,3-Dichlorobenzene	90000.U	132-64-9	Dibenzofuran	90000.U
106-46-7	1,4-Dichlorobenzene	90000.U	121-14-2	2,4-Dinitrotoluene	90000.U
100-51-6	Benzyl Alcohol	90000.U	606-20-2	2,6-Dinitrotoluene	90000.U
95-50-1	1,2-Dichlorobenzene	90000.U	84-66-2	Diethylphthalate	90000.U
95-48-7	2-Methylphenol	90000.U	7005-72-3	4-Chlorophenyl-phenylether	90000.U
39638-32-9	bis(2-Chloroisopropyl)Ether	90000.U	86-73-7	Fluorene	90000.U
106-44-5	4-Methylphenol	90000.U	100-10-6	4-Nitroaniline	440000U
621-64-7	N-Nitroso-Di-n-Propylamine	90000.U	534-52-1	4,6-Dinitro-2-Methylphenol	440000U
67-72-1	Hexachloroethane	90000.U	86-30-6	N-Nitrosodiphenylamine (1)	90000.U
98-95-3	Nitrobenzene	90000.U	101-55-3	4-Bromophenyl-phenylether	90000.U
78-59-1	Isophorone	90000.U	118-74-1	Hexachlorobenzene	90000.U
88-75-5	2-Nitrophenol	90000.U	87-86-5	Pentachlorophenol	440000U
105-67-9	2,4-Dimethylphenol	90000.U	85-01-8	Phenanthrene	90000.U
65-85-0	Benzoic Acid	440000U	120-12-7	Anthracene	90000.U
111-91-1	bis(2-Chloroethoxy)Methane	90000.U	84-74-2	Di-n-Butylphthalate	90000.U
120-83-2	2,4-Dichlorophenol	90000.U	206-44-0	Fluoranthene	90000.U
120-82-1	1,2,4-Trichlorobenzene	90000.U	129-00-0	Pyrene	90000.U
91-20-3	Naphthalene	90000.U	85-68-7	Butylbenzylphthalate	90000.U
106-47-8	4-Chloroaniline	90000.U	91-94-1	3,3'-Dichlorobenzidine	180000U
87-68-3	Hexachlorobutadiene	90000.U	56-55-3	Benzo(a)Anthracene	90000.U
59-50-7	4-Chloro-3-Methylphenol	90000.U	117-81-7	bis(2-Ethylhexyl)Phthalate	49000.J
91-57-6	2-Methylnaphthalene	90000.U	218-01-9	Chrysene	90000.U
77-47-4	Hexachlorocyclopentadiene	90000.U	117-84-0	Di-n-Octyl Phthalate	90000.U
88-06-2	2,4,6-Trichlorophenol	90000.U	205-99-2	Benzo(b)Fluoranthene	90000.U
95-95-4	2,4,5-Trichlorophenol	440000U	207-08-9	Benzo(k)Fluoranthene	90000.U
91-58-7	2-Chloronaphthalene	90000.U	50-32-8	Benzo(a)Pyrene	90000.U
88-74-4	2-Nitroaniline	440000U	193-39-5	Indeno(1,2,3-cd)Pyrene	90000.U
131-11-3	Dimethyl Phthalate	90000.U	53-70-3	Dibenz(a,h)Anthracene	90000.U
208-96-8	Acenaphthylene	90000.U	191-24-2	Benzo(g,h,i)Perylene	90000.U
99-09-2	3-Nitroaniline	440000U			

(1) - Cannot be separated from diphenylamine

Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EH 438

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8/28/87

Date Analyzed: 9/25/87

Conc/Dil Factor: 1

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	140. U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	280. U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	1400. U
53494-70-5	Endrin Ketone	280. U
57-74-9	Chlordane	1400. U
8001-35-2	Toxaphene	2800. U
12674-11-2	Aroclor-1016	1400. U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	2800. U
11096-82-5	Aroclor-1260	7310.

2800 D.L

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 2.00 g V_t 2000 µl V_i 5 µl

Laboratory Name CALIFORNIA WATER LABS.

Case No 7924

Sample Number EH 438/10

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8/28/87

Date Analyzed: 9/3/87

Conc/Dil Factor: 10

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	1370.U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	2700.U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	13700.U
53494-70-5	Endrin Ketone	2700.U
57-74-9	Chlordane	12420.J
8001-35-2	Toxaphene	27000.U
12674-11-2	Aroclor-1016	13700.U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	27000.U
11096-82-5	Aroclor-1260	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 2.0 g V_t 2000 V_i 5 µl

Laboratory Name: CALIFORNIA WATER LABS

Case No: 7924

Sample Number: EH-348

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	UNKNOWN	VOA	57	14
2.	↓	↓	120	5.5
3.			136	5.5
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.	1-METHETHYL BENZENE	BNA	533	3300
12.	UNKNOWN	↓	1859	6600
13.	↓	↓	2307	3600
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Laboratory Name: CALIFORNIA WATER LABS

Case No: 7924

Sample Number: EH-438 RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. —	None Found	VOA	—	—
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Sample Number
EJ-490

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: CAL WATER LABS
Lab Sample ID No: C00279V02
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: 7924
QC Report No:
Contract No: 68-01-7277
Date Sample Received: 08/19/87

VOLATILE COMPOUNDS

Concentration: MEDIUM
Date Extracted/Prepared:
Date Analyzed: 08/29/87
Dil Factor: 10.000 pH 8.00
Percent Moisture: (Not Decanted) 38.9

CAS Number		ug/kg	CAS Number		ug/kg
74-87-3	Chloromethane	16000.U	78-87-5	1,2-Dichloropropane	8200. U
74-83-9	Bromomethane	16000.U	10061-02-6	Trans-1,3-Dichloropropene	8200. U
75-01-4	Vinyl Chloride	16000.U	79-01-6	Trichloroethene	8200. U
75-00-3	Chloroethane	16000.U	124-48-1	Dibromochloromethane	8200. U
75-09-2	Methylene Chloride	8200. U	79-00-5	1,1,2-Trichloroethane	8200. U
67-64-1	Acetone	15000.BJ	71-43-2	Benzene	6800. J
75-15-0	Carbon Disulfide	8200. U	10061-01-5	cis-1,3-Dichloropropene	8200. U
75-35-4	1,1-Dichloroethene	8200. U	110-75-8	2-Chloroethylvinylether	16000. U
75-34-3	1,1-Dichloroethane	8200. U	75-25-2	Bromoform	8200. U
156-60-5	Trans-1,2-Dichloroethene	8200. U	591-78-6	2-Hexanone	16000. U
67-66-3	Chloroform	8200. U	108-10-1	4-Methyl-2-Pentanone	16000. U
107-06-2	1,2-Dichloroethane	8200. U	127-18-4	Tetrachloroethene	8200. U
78-93-3	2-Butanone	16000.U	79-34-5	1,1,2,2-Tetrachloroethane	16000. U
71-55-6	1,1,1-Trichloroethane	8200. U	108-88-3	Toluene	300000
56-23-5	Carbon Tetrachloride	8200. U	108-90-7	Chlorobenzene	8200. U
108-05-4	Vinyl Acetate	16000.U	100-41-4	Ethylbenzene	190000
75-27-4	Bromodichloromethane	8200. U	100-42-5	Styrene	8200. U
				Total Xylenes	8200. U

1000 D.L

B - Compound was detected in the QC blank.
J - Reported value is less than the detection limit.
U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 14 for complete definitions of the data reporting qualifiers.

Form I

Laboratory Name: CAL WATER LABS
Case No: 7924

Sample Number
EJ-490

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: MEDIUM
Date Extracted/Prepared: 08/27/87
Date Analyzed: 08/28/87
Conc/Dil Factor: 1.
Percent Moisture: (Decanted)

GPC Cleanup ___ Yes _X_ No
Separatory Funnel Extraction ___ Yes
Continuous Liquid-Liquid Extraction ___ Yes

CAS Number		UG/KG	CAS Number		UG/KG
108-95-2	Phenol	32000.U	83-32-9	Acenaphthene	32000.U
111-44-4	bis(2-Chloroethyl)Ether	32000.U	51-28-5	2,4-Dinitrophenol	160000U
95-57-8	2-Chlorophenol	32000.U	100-02-7	4-Nitrophenol	160000U
541-73-1	1,3-Dichlorobenzene	32000.U	132-64-9	Dibenzofuran	32000.U
106-46-7	1,4-Dichlorobenzene	32000.U	121-14-2	2,4-Dinitrotoluene	32000.U
100-51-6	Benzyl Alcohol	32000.U	606-20-2	2,6-Dinitrotoluene	32000.U
95-50-1	1,2-Dichlorobenzene	32000.U	84-66-2	Diethylphthalate	32000.U
95-48-7	2-Methylphenol	32000.U	7005-72-3	4-Chlorophenyl-phenylether	32000.U
108-32-9	bis(2-Chloroisopropyl)Ether	32000.U	86-73-7	Fluorene	32000.U
106-44-5	4-Methylphenol	32000.U	100-10-6	4-Nitroaniline	160000U
621-64-7	N-Nitroso-Di-n-Propylamine	32000.U	534-52-1	4,6-Dinitro-2-Methylphenol	160000U
67-72-1	Hexachloroethane	32000.U	86-30-6	N-Nitrosodiphenylamine (1)	32000.U
98-95-3	Nitrobenzene	32000.U	101-55-3	4-Bromophenyl-phenylether	32000.U
78-59-1	Isophorone	32000.U	118-74-1	Hexachlorobenzene	32000.U
88-75-5	2-Nitrophenol	32000.U	87-86-5	Pentachlorophenol	160000U
105-67-9	2,4-Dimethylphenol	32000.U	85-01-8	Phenanthrene	32000.U
65-85-0	Benzoic Acid	160000U	120-12-7	Anthracene	32000.U
111-91-1	bis(2-Chloroethoxy)Methane	32000.U	84-74-2	Di-n-Butylphthalate	32000.U
120-83-2	2,4-Dichlorophenol	32000.U	206-44-0	Fluoranthene	32000.U
120-82-1	1,2,4-Trichlorobenzene	32000.U	129-00-0	Pyrene	32000.U
91-20-3	Naphthalene	18000.J	85-68-7	Butylbenzylphthalate	32000.U
106-47-8	4-Chloroaniline	32000.U	91-94-1	3,3'-Dichlorobenzidine	65000.U
87-68-3	Hexachlorobutadiene	32000.U	56-55-3	Benzo(a)Anthracene	32000.U
59-50-7	4-Chloro-3-Methylphenol	32000.U	117-81-7	bis(2-Ethylhexyl)Phthalate	67000.B
91-57-6	2-Methylnaphthalene	32000.U	218-01-9	Chrysene	32000.U
77-47-4	Hexachlorocyclopentadiene	32000.U	117-84-0	Di-n-Octyl Phthalate	32000.U
88-06-2	2,4,6-Trichlorophenol	32000.U	205-99-2	Benzo(b)Fluoranthene	32000.U
95-95-4	2,4,5-Trichlorophenol	160000U	207-08-9	Benzo(k)Fluoranthene	32000.U
91-58-7	2-Chloronaphthalene	32000.U	50-32-8	Benzo(a)Pyrene	32000.U
88-74-4	2-Nitroaniline	160000U	193-39-5	Indeno(1,2,3-cd)Pyrene	32000.U
131-11-3	Dimethyl Phthalate	32000.U	53-70-3	Dibenz(a,h)Anthracene	32000.U
208-96-8	Acenaphthylene	32000.U	191-24-2	Benzo(g,h,i)Perylene	32000.U
99-09-2	3-Nitroaniline	160000U			

(1) - Cannot be separated from diphenylamine

Laboratory Name CALIFORNIA WATER LABS.

Case No 7924

Sample Number EJ490

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8/28/87

Date Analyzed: 9/29/87

Conc/Dil Factor: 1

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	200.U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	400.U
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	2000.U
53494-70-5	Endrin Ketone	400.U
57-74-9	Chlordane	~~2602~~ 2000U
8001-35-2	Toxaphene	4000.U
12674-11-2	Aroclor-1016	2000.U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	2060.J
11096-82-5	Aroclor-1260	4000.U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 2.06 V_t 2000 µl V_i 5 µl

Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EJ 490/10

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8/28/87

Date Analyzed: 9/3/87

Conc/Dil Factor: 10

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	2000. U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	4000. U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	20000. U
53494-70-5	Endrin Ketone	~~4000. U~~ 4000 U. 00
57-74-9	Chlordane	~~20000. U~~ 1300 J
8001-35-2	Toxaphene	40000. U
12674-11-2	Aroclor-1016	~~20000 U~~
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	~~40000. U~~
11096-82-5	Aroclor-1260	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 206 V_t 2000 µl V_i 5 µl

Laboratory Name CALIFORNIA WATER LABS.

Case No 7924

Sample Number EJ 490/100

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed: 9/4/87

Conc/Dil Factor: 100

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	20000.U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	40000.U
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-6	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	200000.U
53494-70-5	Endrin Ketone	40000.U
57-74-9	Chlordane	200000.U
8001-35-2	Toxaphene	400000.U
12674-11-2	Aroclor-1016	200000.U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	400000.U
11096-82-5	Aroclor-1260	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 2.0 V_t 2000 µl V_i 5 µl

Laboratory Name: CALIFORNIA WATER LABS

Case No: 7924

Sample Number: EJ-490

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	—	NONE FOUND	VOA	—	—
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.	95-47-6	1,2-DIMETHYL BENZENE	BNA	491	110,000.
11.	611-54-3	1-ETHYL-2-METHYL-BENZENE		617	25000.
12.	526-73-8	1,2,3-TRIMETHYL BENZENE		629	12900
13.	95-63-6	1,2,4-TRIMETHYL BENZENE		671	50600
14.	124-18-5	DECANE		684	12900
15.	98-82-8	(1-METHYLETHYL)-BENZENE		717	21800
16.	1074-55-1	1-METHYL-4-PROPYL-BENZENE		763	12900
17.	535-77-3	1-METHYL-3-(1-METHYLETHYL)-BENZENE		774	14900.
18.	—	UNKNOWN		812	70200
19.	933-98-2	1-ETHYL-2,3-DIMETHYL-BENZENE		857	24500
20.	488-23-3	1,2,3,4-TETRAMETHYL-BENZENE		863	26000
21.	1758-88-9	2-ETHYL-1,4-DIMETHYL-BENZENE		907	13000
22.	—	UNKNOWN		1087	13000
23.	62238-13	2,3,5-TRIMETHYL DECANE		1199	14300.
24.	—	UNKNOWN HYDROCARBON		1303	18410
25.	629-78-7	HEPTADECANE		1404	15300
26.	—	UNKNOWN HYDROCARBON		1401	13800
27.	3563-25-5	TETRAMETHYL PENTADECANE		1500	12300
28.	—	UNKNOWN HYDROCARBON		1801	237000
29.	—	↓	↓	2308	49900
30.					

Sample Number
EJ-491

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: CAL WATER LABS
Lab Sample ID No: C00250V0
Sample Matrix: SOIL
Data Release Authorized By: Ben Tyson

Case No: 7924
QC Report No:
Contract No: 68-01-7277
Date Sample Received: 08/19/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared:
Date Analyzed: 08/25/87
Conc/Dil Factor: 1. pH 8.71
Percent Moisture: (Not Decanted) 20.7

CAS Number		µg/kg	CAS Number		µg/kg
74-87-3	Chloromethane	13. U	78-87-5	1,2-Dichloropropane	6.3U
74-83-9	Bromomethane	13. U	10061-02-6	Trans-1,3-Dichloropropene	6.3U
75-01-4	Vinyl Chloride	13. U	79-01-6	Trichloroethene	6.3U
75-00-3	Chloroethane	13. U	124-48-1	Dibromochloromethane	6.3U
75-09-2	Methylene Chloride	6.3U	79-00-5	1,1,2-Trichloroethane	6.3U
67-64-1	Acetone	19. B	71-43-2	Benzene	6.3U
75-15-0	Carbon Disulfide	6.3U	10061-01-5	cis-1,3-Dichloropropene	6.3U
75-35-4	1,1-Dichloroethene	6.3U	110-75-8	2-Chloroethylvinylether	13. U
75-35-3	1,1-Dichloroethane	6.3U	75-25-2	Bromoform	6.3U
156-60-5	Trans-1,2-Dichloroethene	6.3U	108-10-1	4-Methyl-2-Pentanone	13. U
67-66-3	Chloroform	6.3U	591-78-6	2-Hexanone	13 U ~~6.3U~~ 47
107-06-2	1,2-Dichloroethane	6.3U	127-18-4	Tetrachloroethene	6.3U
78-93-3	2-Butanone	13. U	79-34-5	1,1,2,2-Tetrachloroethane	13. U
71-55-6	1,1,1-Trichloroethane	6.3U	108-88-3	Toluene	6.3U
56-23-5	Carbon Tetrachloride	6.3U	108-90-7	Chlorobenzene	6.3U
108-05-4	Vinyl Acetate	13. U	100-41-4	Ethylbenzene	6.3U
75-27-4	Bromodichloromethane	6.3U	100-42-5	Styrene	6.3U
				Total Xylenes	6.3U

B - Compound was detected in the QC blank.
U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

Form I

Sample Number
EJ-491 RE

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: CAL WATER LABS
Lab Sample ID No: C00280V02
Sample Matrix: SOIL
Data Release Authorized by: Ben Tyson

Case No: 7924
QC Report No:
Contract No: 68-01-7277
Date Sample Received: 08/19/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared:
Date Analyzed: 08/25/87
Conc/Dil Factor: 1. pH 8.71
Percent Moisture: (Not Decanted) 20.7

CAS Number		µg/kg	CAS Number		µg/kg
74-87-3	Chloromethane	13. U	78-87-5	1,2-Dichloropropane	6.3U
74-83-9	Bromomethane	13. U	10061-02-6	Trans-1,3-Dichloropropene	6.3U
75-01-4	Vinyl Chloride	13. U	79-01-6	Trichloroethene	6.3U
75-00-3	Chloroethane	13. U	124-48-1	Dibromochloromethane	6.3U
75-09-2	Methylene Chloride	6.3U	79-00-5	1,1,2-Trichloroethane	6.3U
67-64-1	Acetone	20. B	71-43-2	Benzene	6.3U
75-15-0	Carbon Disulfide	6.3U	10061-01-5	cis-1,3-Dichloropropene	6.3U
75-35-4	1,1-Dichloroethene	6.3U	110-75-8	2-Chloroethylvinylether	13. U
75-35-3	1,1-Dichloroethane	6.3U	75-25-2	Bromoform	6.3U
156-60-5	Trans-1,2-Dichloroethene	6.3U	108-10-1	4-Methyl-2-Pentanone	13. U
67-66-3	Chloroform	6.3U	591-78-6	2-Hexanone	13.U
107-06-2	1,2-Dichloroethane	6.3U	127-18-4	Tetrachloroethene	6.3U
78-93-3	2-Butanone	13. U	79-34-5	1,1,2,2-Tetrachloroethane	13. U
71-55-6	1,1,1-Trichloroethane	6.3U	108-88-3	Toluene	6.3U
56-23-5	Carbon Tetrachloride	6.3U	108-90-7	Chlorobenzene	6.3U
108-05-4	Vinyl Acetate	13. U	100-41-4	Ethylbenzene	6.3U
75-27-4	Bromodichloromethane	6.3U	100-42-5	Styrene	6.3U
				Total Xylenes	6.3U

B - Compound was detected in the QC blank.
U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

Form I

Laboratory Name: CAL WATER LABS
Case No: 7924

Sample Number
EJ-491

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 08/28/87
Date Analyzed: 09/02/87
Dil Factor: 5.556
Percent Moisture: (Decanted) _____

GPC Cleanup X Yes ___ No
Separatory Funnel Extraction ___ Yes
Continuous Liquid-Liquid Extraction ___ Yes

CAS Number		UG/KG	CAS Number		UG/KG
108-95-2	Phenol	2300. U	83-32-9	Acenaphthene	2300. U
111-44-4	bis(2-Chloroethyl)Ether	2300. U	51-28-5	2,4-Dinitrophenol	11000.U
95-57-8	2-Chlorophenol	2300. U	100-02-7	4-Nitrophenol	11000.U
541-73-1	1,3-Dichlorobenzene	2300. U	132-64-9	Dibenzofuran	2300. U
106-46-7	1,4-Dichlorobenzene	2300. U	121-14-2	2,4-Dinitrotoluene	2300. U
100-51-6	Benzyl Alcohol	2300. U	606-20-2	2,6-Dinitrotoluene	2300. U
95-50-1	1,2-Dichlorobenzene	2300. U	84-66-2	Diethylphthalate	2300. U
95-48-7	2-Methylphenol	2300. U	7005-72-3	4-Chlorophenyl-phenylether	2300. U
39638-32-9	bis(2-Chloroisopropyl)Ether	2300. U	86-73-7	Fluorene	2300. U
106-44-5	4-Methylphenol	2300. U	100-10-6	4-Nitroaniline	11000.U
621-64-7	N-Nitroso-Di-n-Propylamine	2300. U	534-52-1	4,6-Dinitro-2-Methylphenol	11000.U
67-72-1	Hexachloroethane	2300. U	86-30-6	N-Nitrosodiphenylamine (1)	2300. U
98-95-3	Nitrobenzene	2300. U	101-55-3	4-Bromophenyl-phenylether	2300. U
78-59-1	Isophorone	2300. U	118-74-1	Hexachlorobenzene	2300. U
88-75-5	2-Nitrophenol	2300. U	87-86-5	Pentachlorophenol	11000.U
105-67-9	2,4-Dimethylphenol	2300. U	85-01-8	Phenanthrene	2300. U
65-85-0	Benzoic Acid	11000.U	120-12-7	Anthracene	2300. U
111-91-1	bis(2-Chloroethoxy)Methane	2300. U	84-74-2	Di-n-Butylphthalate	2300. U
120-83-2	2,4-Dichlorophenol	2300. U	206-44-0	Fluoranthene	2700.
120-82-1	1,2,4-Trichlorobenzene	2300. U	129-00-0	Pyrene	3000.
91-20-3	Naphthalene	2300. U	85-68-7	Butylbenzylphthalate	2300. U
106-47-8	4-Chloroaniline	2300. U	91-94-1	3,3'-Dichlorobenzidine	4600. U
87-68-3	Hexachlorobutadiene	2300. U	56-55-3	Benzo(a)Anthracene	2300. U
59-50-7	4-Chloro-3-Methylphenol	2300. U	117-81-7	bis(2-Ethylhexyl)Phthalate	3300.
91-57-6	2-Methylnaphthalene	2300. U	218-01-9	Chrysene	2300. U
77-47-4	Hexachlorocyclopentadiene	2300. U	117-84-0	Di-n-Octyl Phthalate	2300. U
88-06-2	2,4,6-Trichlorophenol	2300. U	205-99-2	Benzo(b)Fluoranthene	2700.
95-95-4	2,4,5-Trichlorophenol	11000.U	207-08-9	Benzo(k)Fluoranthene	2300. U
91-58-7	2-Chloronaphthalene	2300. U	50-32-8	Benzo(a)Pyrene	2300. U
88-74-4	2-Nitroaniline	11000.U	193-39-5	Indeno(1,2,3-cd)Pyrene	2300. U
131-11-3	Dimethyl Phthalate	2300. U	53-70-3	Dibenz(a,h)Anthracene	2300. U
208-96-8	Acenaphthylene	2300. U	191-24-2	Benzo(g,h,i)Perylene	3200.
99-09-2	3-Nitroaniline	11000.U			

(1) - Cannot be separated from diphenylamine

Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EJ491

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed 9/28/87

Conc/Dil Factor 1

Percent Moisture (decanted) _____

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	10.U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	↓
60-57-1	Dieldrin	20.U
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	↓
72-43-5	Methoxychlor	100.U
53494-70-5	Endrin Ketone	20.U
57-74-9	Chlordane	100.U
8001-35-2	Toxaphene	200.U
12674-11-2	Aroclor-1016	100.U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	↓
11097-69-1	Aroclor-1254	200.U
11096-82-5	Aroclor-1260	↓

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 29.9 µl V_t 2000 µl V_i 5 µl

Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EJ 491/10

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed 9/17/87

Conc/Dil Factor: 10

Percent Moisture (decanted) _____

GPC Cleanup ☒Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	100 U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	200 U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	1000. U
53494-70-5	Endrin Ketone	200. U
57-74-9	Chlordane	1000. U
8001-35-2	Toxaphene	2000. U
12674-11-2	Aroclor-1016	1000. U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	2000. U
11096-82-5	Aroclor-1260	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 29.91 V_t 2000 ul V_i 5 ul

Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EJ491/100

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed 9/24/14/87 DCM

Conc/Dil Factor: 100

Percent Moisture (decanted)

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	1000.U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	2000.U
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	10000.U
53494-70-5	Endrin Ketone	~~2000.U~~
57-74-9	Chlordane	10900
8001-35-2	Toxaphene	20000.U
12674-11-2	Aroclor-1016	10000.U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	13300.J
11096-82-5	Aroclor-1260	20000.U

10 000 D.L.

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 29.91 V_t 2000 µl V_i 5 µl

Laboratory Name: CALIFORNIA WATER LABS

Case No: 7924

Sample Number: EJ-491

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. —	unknown	VOA	54	10.8
2. ~~3976-1~~ 3761-61-0	(Z)-5,5-Dimethyl-2Hexene	↓	446	10
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11. 873-94-9	3,3,5-Trimethyl-Cyclohexanone	BNA	~~471~~ 741 PH	1500
12. —	unknown		862	2100
13. —	↓		1671	1500
14. 117-82-8	Bis(2-Methoxyethyl) Ester		1722	1600
15.	1,2-Benzenedicarboxylic Acid			
16. —	unknown		2168	3400
17. —	↓		2305	3600
18. —	↓		2319	2000
19. 205-82-3	Benzo[J]Fluoranthene	↓	2352	3000
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Laboratory Name: CALIFORNIA WATER LABS

Case No: 7924

Sample Number: ES-49/RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
23	1. 593-75-9	Isocyano-Methane	VOA	62	22.8
24	2. 39761-41-0	(Z)-5,5-Dimethyl-2-Hexene	↓	446	16.8
	3.				
	4.				
	5.				
	6.				
	7.				
	8.				
	9.				
	10.				
	11.				
	12.				
	13.				
	14.				
	15.				
	16.				
	17.				
	18.				
	19.				
	20.				
	21.				
	22.				
	23.				
	24.				
	25.				
	26.				
	27.				
	28.				
	29.				
	30.				

Sample Number
EJ-492

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: CAL WATER LABS
Case No: 7924
Lab Sample ID No: C9028IV0
QC Report No:
Sample Matrix: SOIL
Contract No: 68-01-7277
Data Release Authorized By: Ben Tyson
Date Sample Received: 08/19/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared:
Date Analyzed: 08/25/87
Conc/Dil Factor: 1. pH 8.62
Percent Moisture: (Not Decanted) 22.5

CAS Number		ug/kg	CAS Number		ug/kg
74-87-3	Chloromethane	13. U	78-87-5	1,2-Dichloropropane	6.5U
74-83-9	Bromomethane	13. U	10061-02-6	Trans-1,3-Dichloropropene	6.5U
75-01-4	Vinyl Chloride	13. U	79-01-6	Trichloroethene	2.8J
75-00-3	Chloroethane	13. U	124-48-1	Dibromochloromethane	6.5U
75-09-2	Methylene Chloride	6.5U	79-00-5	1,1,2-Trichloroethane	6.5U
67-64-1	Acetone	19. B	71-43-2	Benzene	6.5U
75-15-0	Carbon Disulfide	6.5U	10061-01-5	cis-1,3-Dichloropropene	6.5U
75-35-4	1,1-Dichloroethene	6.5U	110-75-8	2-Chloroethylvinylether	13. U
75-35-3	1,1-Dichloroethane	6.5U	75-25-2	Bromoform	6.5U
156-60-5	Trans-1,2-Dichloroethene	6.5U	108-10-1	4-Methyl-2-Pentanone	13. U
67-66-3	Chloroform	6.5U	591-78-6	2-Hexanone	13U
107-06-2	1,2-Dichloroethane	6.5U	127-18-4	Tetrachloroethene	4.4J
78-93-3	2-Butanone	13. U	79-34-5	1,1,2,2-Tetrachloroethane	13. U
71-55-6	1,1,1-Trichloroethane	6.5U	108-88-3	Toluene	6.5U
56-23-5	Carbon Tetrachloride	6.5U	108-90-7	Chlorobenzene	6.5U
108-05-4	Vinyl Acetate	13. U	100-41-4	Ethylbenzene	6.5U
75-27-4	Bromodichloromethane	6.5U	100-42-5	Styrene	6.5U
				Total Xylenes	6.5U

B - Compound was detected in the QC blank.
U - Reported value is less than the detection limit.
J - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

Form I

Sample Number
EJ-492 RE

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: CAL WATER LABS
Lab Sample ID No: C00281V02
Sample Matrix: SOIL
Data Release Authorized By: Ben Tyson

Case No: 7924
QC Report No:
Contract No: 68-01-7277
Date Sample Received: 08/19/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared:
Date Analyzed: 08/25/87
Conc/Dil Factor: 1. pH 8.62
Percent Moisture: (Not Decanted) 22.5

CAS Number			CAS Number		
-87-3	Chloromethane	13. U	78-87-5	1,2-Dichloropropane	6.5U
-83-9	Bromomethane	13. U	10061-02-6	Trans-1,3-Dichloropropene	6.5U
5-01-4	Vinyl Chloride	13. U	79-01-6	Trichloroethene	4.4J
75-00-3	Chloroethane	13. U	124-48-1	Dibromochloromethane	6.5U
75-09-2	Methylene Chloride	6.5U	79-00-5	1,1,2-Trichloroethane	6.5U
67-64-1	Acetone	18. B	71-43-2	Benzene	6.5U
75-15-0	Carbon Disulfide	6.5U	10061-01-5	cis-1,3-Dichloropropene	6.5U
-35-4	1,1-Dichloroethene	6.5U	110-75-8	2-Chloroethylvinylether	13. U
-35-3	1,1-Dichloroethane	6.5U	75-25-2	Bromoform	6.5U
5-60-5	Trans-1,2-Dichloroethene	6.5U	108-10-1	4-Methyl-2-Pentanone	13. U
-66-3	Chloroform	6.5U	591-78-6	2-Hexanone	13U
07-06-2	1,2-Dichloroethane	6.5U	127-18-4	Tetrachloroethene	7.8
-93-3	2-Butanone	13. U	79-34-5	1,1,2,2-Tetrachloroethane	13. U
71-55-6	1,1,1-Trichloroethane	6.5U	108-88-3	Toluene	3.4J
56-23-5	Carbon Tetrachloride	6.5U	108-90-7	Chlorobenzene	6.5U
08-05-4	Vinyl Acetate	13. U	100-41-4	Ethylbenzene	6.5U
-27-4	Bromodichloromethane	6.5U	100-42-5	Styrene	6.5U
				Total Xylenes	6.5U

B - Compound was detected in the QC blank.
J - Reported value is less than the detection limit.
U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

Form I

Laboratory Name: CAL WATER LABS
Case No: 7924

Sample Number
EJ-492

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: MEDIUM
Date Extracted/Prepared: 08/27/87
Date Analyzed: 08/28/87
Dil Factor: 4.000
Percent Moisture: (Decanted) _____

GPC Cleanup ___ Yes X No
Separatory Funnel Extraction ___ Yes
Continuous Liquid-Liquid Extraction ___ Yes

CAS Number		UG/KG	CAS Number		UG/KG
[illegible]-95-2	Phenol	100000U	83-32-9	Acenaphthene	100000U
[illegible]-44-4	bis(2-Chloroethyl)Ether	100000U	51-28-5	2,4-Dinitrophenol	500000U
[illegible]-57-8	2-Chlorophenol	100000U	100-02-7	4-Nitrophenol	500000U
[illegible]-73-1	1,3-Dichlorobenzene	100000U	132-64-9	Dibenzofuran	100000U
[illegible]-46-7	1,4-Dichlorobenzene	100000U	121-14-2	2,4-Dinitrotoluene	100000U
[illegible]-51-6	Benzyl Alcohol	100000U	606-20-2	2,6-Dinitrotoluene	100000U
[illegible]50-1	1,2-Dichlorobenzene	100000U	84-66-2	Diethylphthalate	100000U
[illegible]-48-7	2-Methylphenol	100000U	7005-72-3	4-Chlorophenyl-phenylether	100000U
39638-32-9	bis(2-Chloroisopropyl)Ether	100000U	86-73-7	Fluorene	100000U
[illegible]-44-5	4-Methylphenol	100000U	100-10-6	4-Nitroaniline	500000U
[illegible]-64-7	N-Nitroso-Di-n-Propylamine	100000U	534-52-1	4,6-Dinitro-2-Methylphenol	500000U
[illegible]-72-1	Hexachloroethane	100000U	86-30-6	N-Nitrosodiphenylamine (1)	100000U
[illegible]95-3	Nitrobenzene	100000U	101-55-3	4-Bromophenyl-phenylether	100000U
[illegible]-59-1	Isophorone	100000U	118-74-1	Hexachlorobenzene	100000U
[illegible]-75-5	2-Nitrophenol	100000U	87-86-5	Pentachlorophenol	500000U
[illegible]-67-9	2,4-Dimethylphenol	100000U	85-01-8	Phenanthrene	100000U
[illegible]-85-0	Benzoic Acid	500000U	120-12-7	Anthracene	100000U
[illegible]1-91-1	bis(2-Chloroethoxy)Methane	100000U	84-74-2	Di-n-Butylphthalate	100000U
[illegible]0-83-2	2,4-Dichlorophenol	100000U	206-44-0	Fluoranthene	100000U
[illegible]0-82-1	1,2,4-Trichlorobenzene	100000U	129-00-0	Pyrene	100000U
[illegible]-20-3	Naphthalene	100000U	85-68-7	Butylbenzylphthalate	100000U
[illegible]06-47-8	4-Chloroaniline	100000U	91-94-1	3,3'-Dichlorobenzidine	200000U
[illegible]7-68-3	Hexachlorobutadiene	100000U	56-55-3	Benzo(a)Anthracene	100000U
[illegible]9-50-7	4-Chloro-3-Methylphenol	100000U	117-81-7	bis(2-Ethylhexyl)Phthalate	100000U
[illegible]57-6	2-Methylnaphthalene	100000U	218-01-9	Chrysene	100000U
[illegible]-47-4	Hexachlorocyclopentadiene	100000U	117-84-0	Di-n-Octyl Phthalate	100000U
[illegible]-06-2	2,4,6-Trichlorophenol	100000U	205-99-2	Benzo(b)Fluoranthene	100000U
[illegible]-95-4	2,4,5-Trichlorophenol	500000U	207-08-9	Benzo(k)Fluoranthene	100000U
[illegible]-58-7	2-Chloronaphthalene	100000U	50-32-8	Benzo(a)Pyrene	100000U
[illegible]-74-4	2-Nitroaniline	500000U	193-39-5	Indeno(1,2,3-cd)Pyrene	100000U
[illegible]1-11-3	Dimethyl Phthalate	100000U	53-70-3	Dibenz(a,h)Anthracene	100000U
[illegible]8-96-8	Acenaphthylene	100000U	191-24-2	Benzo(g,h,i)Perylene	100000U
[illegible]-09-2	3-Nitroaniline	500000U			

(1) - Cannot be separated from diphenylamine

Form I

Laboratory Name CALIFORNIA WATER LABS.

Case No 7924

Sample Number EJ492

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed: 9/4/87

Conc/Dil Factor: 1

Percent Moisture (decanted) _____

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	150.U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	310.U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	1500.U
53494-70-5	Endrin Ketone	310.U
57-74-9	Chlordane	1500.U
8001-35-2	Toxaphene	3100.U
12674-11-2	Aroclor-1016	1500.U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	3100.U
11096-82-5	Aroclor-1260	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 205 V_t 2,000 µl V_i 5 µl

Laboratory Name CALIFORNIA WATER LABS.

Case No 7924

Sample Number EJ 492/10

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8/28/87

Date Analyzed: 9/3/87

Conc/Dil Factor: 10

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	1500.U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	3100.U
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	15000.U
53494-70-5	Endrin Ketone	3100.U
57-74-9	Chlordane	13020.J
8001-35-2	Toxaphene	~~31000.U~~
12674-11-2	Aroclor-1016	15000.U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	10200.J
11096-82-5	Aroclor-1260	31000 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 2.05 V_t 2000 µl V_i 5 µl

Laboratory Name CALIFORNIA WATER LABS.

Case No 7924

Sample Number EJ 492/100

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8/28/87

Date Analyzed: 9/4/87

Conc/Dil Factor: 100

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	15000. U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	31000. U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	150000 U
53494-70-5	Endrin Ketone	31000. U
57-74-9	Chlordane	150000. U
8001-35-2	Toxaphene	310000. U
12674-11-2	Aroclor-1016	150000. U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	310000. U
11096-82-5	Aroclor-1260	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 2.05g V_t 2000 µl V_i 5 µl

Laboratory Name: CALIFORNIA WATER LABS

Case No: 7924

Sample Number: EJ-492

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
23 1.	593-75-9	Isocyano-Methane	VOA	63	14.6
2213 2.	39761-41-0	(Z)-5,5-Dimethyl-2-Hexene	↓	447	14.7
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.	—	UNKNOWN HYDROCARBON	BNA	1809	67,800
12.	—	UNKNOWN		2308	46,400
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Laboratory Name: CALIFORNIA WATER LABS

Case No: 7924

Sample Number: EJ-492AE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. —	★	VOA	56	12
2. —	★	↓	446	10
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
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30.				

★ FILE FOR C0038IV02 WAS OVERWRITTEN; UNABLE TO OBTAIN TIC SPECTRA

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Sample Number
EJ-493

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: CAL WATER LABS
Lab Sample ID No: C00282V0
Sample Matrix: SOIL
Data Release Authorized By: Ben Tyson

Case No: 7924
QC Report No:
Contract No: 68-01-7277
Date Sample Received: 08/19/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared:
Date Analyzed: 09/25/87
Conc/Dil Factor: 1. pH 8.00
Percent Moisture: (Not Decanted) 16.5

CAS Number			CAS Number		
74-87-3	Chloromethane	12. U	78-87-5	1,2-Dichloropropane	6.0U
74-83-9	Bromomethane	12. U	10061-02-6	Trans-1,3-Dichloropropene	6.0U
75-01-4	Vinyl Chloride	12. U	79-01-6	Trichloroethene	6.0U
75-00-3	Chloroethane	12. U	124-48-1	Dibromochloromethane	6.0U
75-09-2	Methylene Chloride	6.0U	79-00-5	1,1,2-Trichloroethane	6.0U
67-64-1	Acetone	22. B	71-43-2	Benzene	6.0U
75-15-0	Carbon Disulfide	6.0U	10061-01-5	cis-1,3-Dichloropropene	6.0U
75-35-4	1,1-Dichloroethene	6.0U	110-75-8	2-Chloroethylvinylether	12. U
75-35-3	1,1-Dichloroethane	6.0U	75-25-2	Bromoform	6.0U
156-60-5	Trans-1,2-Dichloroethene	6.0U	108-10-1	4-Methyl-2-Pentanone	12. U
67-66-3	Chloroform	6.0U	591-78-6	2-Hexanone	12.U
107-06-2	1,2-Dichloroethane	6.0U	127-18-4	Tetrachloroethene	5.0J
78-93-3	2-Butanone	12. U	79-34-5	1,1,2,2-Tetrachloroethane	12. U
71-55-6	1,1,1-Trichloroethane	6.0U	108-88-3	Toluene	6.0U
56-23-5	Carbon Tetrachloride	6.0U	108-90-7	Chlorobenzene	6.0U
108-05-4	Vinyl Acetate	12. U	100-41-4	Ethylbenzene	6.0U
75-27-4	Bromodichloromethane	6.0U	100-42-5	Styrene	6.0U
				Total Xylenes	6.0U

B - Compound was detected in the QC blank.
J - Reported value is less than the detection limit.
U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

Form I

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Sample Number
EJ-493 RE

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: CAL WATER LABS
Lab Sample ID No: C00282V02
Sample Matrix: SOIL
Data Release Authorized By: Ben Tyson

Case No: 7924
QC Report No:
Contract No: 68-01-7277
Date Sample Received: 08/19/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared:
Date Analyzed: 09/25/87
Conc/Dil Factor: 1. pH 8.00
Percent Moisture: (Not Decanted) 16.5

CAS Number			CAS Number		
74-87-3	Chloromethane	12. U	78-87-5	1,2-Dichloropropane	6.0U
74-83-9	Bromomethane	12. U	10061-02-6	Trans-1,3-Dichloropropene	6.0U
75-01-4	Vinyl Chloride	12. U	79-01-6	Trichloroethene	6.0U
75-00-3	Chloroethane	12. U	124-48-1	Dibromochloromethane	6.0U
75-09-2	Methylene Chloride	6.0U	79-00-5	1,1,2-Trichloroethane	6.0U ~~1.0U~~ bf
67-64-1	Acetone	17. B	71-43-2	Benzene	6.0U
75-15-0	Carbon Disulfide	6.0U	10061-01-5	cis-1,3-Dichloropropene	6.0U
75-35-4	1,1-Dichloroethene	6.0U	110-75-8	2-Chloroethylvinylether	12. U
75-35-3	1,1-Dichloroethane	6.0U	75-25-2	Bromoform	6.0U
156-60-5	Trans-1,2-Dichloroethene	6.0U	108-10-1	4-Methyl-2-Pentanone	12. U
67-66-3	Chloroform	6.0U	591-78-6	2-Hexanone	12U ~~2.0U~~ bf
107-06-2	1,2-Dichloroethane	6.0U	127-18-4	Tetrachloroethene	5.2J
78-93-3	2-Butanone	12. U	79-34-5	1,1,2,2-Tetrachloroethane	12. U
71-55-6	1,1,1-Trichloroethane	6.0U	108-88-3	Toluene	6.0U ~~1.0U~~ bf
56-23-5	Carbon Tetrachloride	6.0U	108-90-7	Chlorobenzene	6.0U
108-05-4	Vinyl Acetate	12. U	100-41-4	Ethylbenzene	6.0U
75-27-4	Bromodichloromethane	6.0U	100-42-5	Styrene	6.0U
				Total Xylenes	6.0U

B - Compound was detected in the QC blank.
J - Reported value is less than the detection limit.
U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

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Laboratory Name: CAL WATER LABS
Case No: 7924

Sample Number
EJ-493

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 08/28/87
Date Analyzed: 09/04/87
Dil Factor: 5.556
Percent Moisture: (Decanted) _____

GPC Cleanup X Yes ___ No
Separatory Funnel Extraction ___ Yes
Continuous Liquid-Liquid Extraction ___ Yes

CAS Number		UG/KG	CAS Number		UG/KG
108-95-2	Phenol	2200. U	83-32-9	Acenaphthene	2200. U
111-44-4	bis(2-Chloroethyl)Ether	2200. U	51-28-5	2,4-Dinitrophenol	11000.U
95-57-8	2-Chlorophenol	2200. U	100-02-7	4-Nitrophenol	11000.U
541-73-1	1,3-Dichlorobenzene	2200. U	132-64-9	Dibenzofuran	890. J
106-46-7	1,4-Dichlorobenzene	2200. U	121-14-2	2,4-Dinitrotoluene	2200. U
100-51-6	Benzyl Alcohol	2200. U	606-20-2	2,6-Dinitrotoluene	2200. U
95-50-1	1,2-Dichlorobenzene	2200. U	84-66-2	Diethylphthalate	2200. U
95-48-7	2-Methylphenol	2200. U	7005-72-3	4-Chlorophenyl-phenylether	2200. U
39638-32-9	bis(2-Chloroisopropyl)Ether	2200. U	86-73-7	Fluorene	1100. J
106-44-5	4-Methylphenol	2200. U	100-10-6	4-Nitroaniline	11000.U
621-64-7	N-Nitroso-Di-n-Propylamine	2200. U	534-52-1	4,6-Dinitro-2-Methylphenol	11000.U
67-72-1	Hexachloroethane	2200. U	86-30-6	N-Nitrosodiphenylamine (1)	2200. U
98-95-3	Nitrobenzene	2200. U	101-55-3	4-Bromophenyl-phenylether	2200. U
78-59-1	Isophorone	4200	118-74-1	Hexachlorobenzene	2200. U
88-75-5	2-Nitrophenol	2200. U	87-86-5	Pentachlorophenol	11000.U
105-67-9	2,4-Dimethylphenol	2200. U	85-01-8	Phenanthrene	9400.
65-85-0	Benzoic Acid	11000.U	120-12-7	Anthracene	2700
111-91-1	bis(2-Chloroethoxy)Methane	2200. U	84-74-2	Di-n-Butylphthalate	1100. J
120-83-2	2,4-Dichlorophenol	2200. U	206-44-0	Fluoranthene	16000.
120-82-1	1,2,4-Trichlorobenzene	2200. U	129-00-0	Pyrene	12000.
91-20-3	Naphthalene	2800	85-68-7	Butylbenzylphthalate	2200. U
106-47-8	4-Chloroaniline	2200. U	91-94-1	3,3'-Dichlorobenzidine	4400. U
87-68-3	Hexachlorobutadiene	2200. U	56-55-3	Benzo(a)Anthracene	8000.
59-50-7	4-Chloro-3-Methylphenol	2200. U	117-81-7	bis(2-Ethylhexyl)Phthalate	8600.
91-57-6	2-Methylnaphthalene	1300. J	218-01-9	Chrysene	6700.
77-47-4	Hexachlorocyclopentadiene	2200. U	117-84-0	Di-n-Octyl Phthalate	2200. U
88-06-2	2,4,6-Trichlorophenol	2200. U	205-99-2	Benzo(b)Fluoranthene	11000.
95-95-4	2,4,5-Trichlorophenol	11000.U	207-08-9	Benzo(k)Fluoranthene	2200. U
91-58-7	2-Chloronaphthalene	2200. U	50-32-8	Benzo(a)Pyrene	8500.
88-74-4	2-Nitroaniline	11000.U	193-39-5	Indeno(1,2,3-cd)Pyrene	9000.
131-11-3	Dimethyl Phthalate	2200. U	53-70-3	Dibenz(a,h)Anthracene	2200. U
208-96-8	Acenaphthylene	4900.	191-24-2	Benzo(g,h,i)Perylene	13000.
99-09-2	3-Nitroaniline	11000.U			

(1). - Cannot be separated from diphenylamine

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Laboratory Name CALIFORNIA WATER LABS

Case No 7424

Sample Number EJ 493

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed 9/18/87

Conc/Dil Factor 1

Percent Moisture (decanted)

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	10. U
319-85-7	Beta-BHC	↓
319-86-8	Delta-BHC	↓
58-89-9	Gamma-BHC (Lindane)	↓
76-44-8	Heptachlor	↓
309-00-2	Aldrin	↓
1024-57-3	Heptachlor Epoxide	↓
959-98-8	Endosulfan I	↓
60-57-1	Dieldrin	19. U
72-55-9	4, 4'-DDE	↓
72-20-8	Endrin	↓
33213-65-9	Endosulfan II	↓
72-54-8	4, 4'-DDD	↓
1031-07-8	Endosulfan Sulfate	↓
50-29-3	4, 4'-DDT	↓
72-43-5	Methoxychlor	100. U
53494-70-5	Endrin Ketone	19. U
57-74-9	Chlordane	100. U
8001-35-2	Toxaphene	200. U
12674-11-2	Aroclor-1016	100. U
11104-28-2	Aroclor-1221	↓
11141-16-5	Aroclor-1232	↓
53469-21-9	Aroclor-1242	↓
12672-29-6	Aroclor-1248	↓
11097-69-1	Aroclor-1254	200. U
11096-82-5	Aroclor-1260	↓

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 29.91 V_t 2000 µl V_i 5 µl

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Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EJ493/10

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 8/25/87

Date Analyzed 9/17/87

Conc/Dil Factor 10

Percent Moisture (decanted)

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	96. U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	190. U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	960. U
53494-70-5	Endrin Ketone	190. U
57-74-9	Chlordane	960. U
8001-35-2	Toxaphene	1900. U
12674-11-2	Aroclor-1016	960. U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	(4810.)
11096-82-5	Aroclor-1260	1900. U

1900 D.2.

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 29.91 V_t 2000 µl V_i 5 µl

Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EJ 493/100

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed 9/14/87

Conc/(Dil) Factor: 100

Percent Moisture (decanted) _____

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	1000.U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	2000.U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	10000.U
53494-70-5	Endrin Ketone	2000.U
57-74-9	Chlordane	12200
8001-35-2	Toxaphene	20000.U
12674-11-2	Aroclor-1016	10000.U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	19340
11096-82-5	Aroclor-1260	20000.U

10 000 D.L.

20,000 D.L

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 29.91 V_t 2000ul V_i 5ul

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Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number E5493/1000

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed 9/17/87

Conc/(Dil) Factor: 1000

Percent Moisture (decanted) _____

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	9600U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	19000U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	96000U
53494-70-5	Endrin Ketone	19000U
57-74-9	Chlordane	960000U
8001-35-2	Toxaphene	1900000U
12674-11-2	Aroclor-1016	96000U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	1900000U
11096-82-5	Aroclor-1260	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 29.91 V_t 2000 ul V_i 5 ul

Laboratory Name CALIFORNIA WATER LABS

Case No. 7924

Sample Number EJ-493

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 593-75-9	ISOCYANO METHANE	VOA	56	20
2. 39761-61-0	(Z)-5,5 DIMETHYL-2-HEXENE	↓	447	18
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10. 110-12-3	5-METHYL-2-HEXANONE	BNA	413	1850
11. 95-47-6	1,2-DIMETHYL BENZENE		436	2700
12. 108-38-3	1,3-DIMETHYL BENZENE		480	2000
13. 108-67-8	1,3,5-TRIMETHYL BENZENE		663	1750
14. 873-94-9	3,3,5-TRIMETHYL-CYCLOHEXANONE		735	2600
15. 99-87-6	1-METHYL-4-(1-METHYLETHYL)BENZENE		807	3000
16. 1120-21-4	UNDECANE		1195	1900
17. 581-40-8	2,3-DIMETYL NAPHTHALENE		1224	2350
18. 629-50-5	TRIDECANE		1492	2200
19. —	UNKNOWN HYDROCARBON		1498	3000
20. —	UNKNOWN		1669	24000
21. 238-84-6	11H-BENZO[A]FLUORENE		1928	2300
22. —	UNKNOWN		2166	3050
23. 205-99-2	BENZ[E]ACEPHENANTHRYLENE		2318	5500
24. 205-82-3	BENZO[J]FLUORANTHENE		2349	7500
25. ~~205-82~~	UNKNOWN		2580	1700
26. —			2597	1950
27. —			2663	2200
28. —	↓	↓	2782	1950
29.				
30.				

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Laboratory Name: CALIFORNIA WATER LABS

Case No: 7924

Sample Number: EJ-493RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
23	1. 593-75-9	Isocyano-Methane	VOA	61	7.6
2213	2. 38761-61-0	(Z)-5-5-Dimethyl-2-Hexene	↓	447	11
	3.				
	4.				
	5.				
	6.				
	7.				
	8.				
	9.				
	10.				
	11.				
	12.				
	13.				
	14.				
	15.				
	16.				
	17.				
	18.				
	19.				
	20.				
	21.				
	22.				
	23.				
	24.				
	25.				
	26.				
	27.				
	28.				
	29.				
	30.				

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Sample Number
EJ-494

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: CAL WATER LABS
Lab Sample ID No: C00283V0
Sample Matrix: SOIL
Data Release Authorized By: Ben Tyson

Case No: 7924
QC Report No:
Contract No: 68-01-7277
Date Sample Received: 08/19/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared:
Date Analyzed: 08/26/87
Conc/Dil Factor: 1. pH 8.89
Percent Moisture: (Not Decanted) 11.9

CAS Number		ug/Kg	CAS Number		ug/Kg
74-87-3	Chloromethane	11. U	78-87-5	1,2-Dichloropropane	5.7U
74-83-9	Bromomethane	11. U	10061-02-6	Trans-1,3-Dichloropropene	5.7U
75-01-4	Vinyl Chloride	11. U	79-01-6	Trichloroethene	2.7J
75-00-3	Chloroethane	11. U	124-48-1	Dibromochloromethane	5.7U
75-09-2	Methylene Chloride	5.7U	79-00-5	1,1,2-Trichloroethane	5.7U
67-64-1	Acetone	27. B	71-43-2	Benzene	5.7U
75-15-0	Carbon Disulfide	5.7U	10061-01-5	cis-1,3-Dichloropropene	5.7U
75-35-4	1,1-Dichloroethene	5.7U	110-75-8	2-Chloroethylvinylether	11. U
75-35-3	1,1-Dichloroethane	5.7U	75-25-2	Bromoform	5.7U
156-60-5	Trans-1,2-Dichloroethene	5.7U	591-78-6	2-Hexanone	11. U
67-66-3	Chloroform	5.7U	108-10-1	4-Methyl-2-Pentanone	11. U
107-06-2	1,2-Dichloroethane	5.7U	127-18-4	Tetrachloroethene	5.7U
78-93-3	2-Butanone	11. U	79-34-5	1,1,2,2-Tetrachloroethane	11. U
71-55-6	1,1,1-Trichloroethane	5.7U	108-88-3	Toluene	3.5J
56-23-5	Carbon Tetrachloride	5.7U	108-90-7	Chlorobenzene	3.7J
108-05-4	Vinyl Acetate	11. U	100-41-4	Ethylbenzene	5.7U
75-27-4	Bromodichloromethane	5.7U	100-42-5	Styrene	5.7U
				Total Xylenes	5.7U

B - Compound was detected in the QC blank.
J - Reported value is less than the detection limit.
U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

Form I

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aboratory Name: CAL WATER LABS
ase No: 7924

Sample Number
EJ-494

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 08/28/87
Date Analyzed: 09/04/87
Dil Factor: 5.556
Percent Moisture: (Decanted) _____

GPC Cleanup X Yes ___ No
Separatory Funnel Extraction ___ Yes
Continuous Liquid-Liquid Extraction ___ Yes

CAS Number		UG/KG	CAS Number		UG/KG
108-95-2	Phenol	2100. U	83-32-9	Acenaphthene	2100. U
111-44-4	bis(2-Chloroethyl)Ether	2100. U	51-28-5	2,4-Dinitrophenol	10000.U
95-57-8	2-Chlorophenol	2100. U	100-02-7	4-Nitrophenol	10000.U
541-73-1	1,3-Dichlorobenzene	2100. U	132-64-9	Dibenzofuran	2100. U
106-46-7	1,4-Dichlorobenzene	2100. U	121-14-2	2,4-Dinitrotoluene	2100. U
100-51-6	Benzyl Alcohol	2100. U	606-20-2	2,6-Dinitrotoluene	2100. U
95-50-1	1,2-Dichlorobenzene	2100. U	84-66-2	Diethylphthalate	2100. U
95-48-7	2-Methylphenol	2100. U	7005-72-3	4-Chlorophenyl-phenylether	2100. U
39638-32-9	bis(2-Chloroisopropyl)Ether	2100. U	86-73-7	Fluorene	2100. U
106-44-5	4-Methylphenol	2100. U	100-10-6	4-Nitroaniline	10000.U
621-64-7	N-Nitroso-Di-n-Propylamine	2100. U	534-52-1	4,6-Dinitro-2-Methylphenol	10000.U
67-72-1	Hexachloroethane	2100. U	86-30-6	N-Nitrosodiphenylamine (1)	2100. U
98-95-3	Nitrobenzene	~~440. J~~ 2100	101-55-3	4-Bromophenyl-phenylether	2100. U
78-59-1	Isophorone	2300.	118-74-1	Hexachlorobenzene	2100. U
88-75-5	2-Nitrophenol	2100. U	87-86-5	Pentachlorophenol	10000.U
105-67-9	2,4-Dimethylphenol	2100. U	85-01-8	Phenanthrene	2000. J
65-85-0	Benzoic Acid	10000.U	120-12-7	Anthracene	2100. U
111-91-1	bis(2-Chloroethoxy)Methane	2100. U	84-74-2	Di-n-Butylphthalate	900. J
120-83-2	2,4-Dichlorophenol	2100. U	206-44-0	Fluoranthene	2700.
120-82-1	1,2,4-Trichlorobenzene	2100. U	129-00-0	Pyrene	2600. 2100 R2
91-20-3	Naphthalene	530. J	85-68-7	Butylbenzylphthalate	2100. U
106-47-8	4-Chloroaniline	2100. U	91-94-1	3,3'-Dichlorobenzidine	4200. U
87-68-3	Hexachlorobutadiene	2100. U	56-55-3	Benzo(a)Anthracene	2100. U
59-50-7	4-Chloro-3-Methylphenol	2100. U	117-81-7	bis(2-Ethylhexyl)Phthalate	4500.
91-57-6	2-Methylnaphthalene	2100. U	218-01-9	Chrysene	1800. J
77-47-4	Hexachlorocyclopentadiene	2100. U	117-84-0	Di-n-Octyl Phthalate	2100. U
88-06-2	2,4,6-Trichlorophenol	2100. U	205-99-2	Benzo(b)Fluoranthene	2700.
95-95-4	2,4,5-Trichlorophenol	10000.U	207-08-9	Benzo(k)Fluoranthene	2100. U
91-58-7	2-Chloronaphthalene	2100. U	50-32-8	Benzo(a)Pyrene	2100. U
88-74-4	2-Nitroaniline	10000.U	193-39-5	Indeno(1,2,3-cd)Pyrene	2100. U
131-11-3	Dimethyl Phthalate	2100. U	53-70-3	Dibenz(a,h)Anthracene	2100. U
208-96-8	Acenaphthylene	610. J	191-24-2	Benzo(g,h,i)Perylene	3500.
99-09-2	3-Nitroaniline	10000.U			

(1) - Cannot be separated from diphenylamine

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Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EJ 494

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed 9/18/87

Conc/Dil Factor 1

Percent Moisture (decanted) _____

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	9.0U
319-85-7	Beta-BHC	↓
319-86-8	Delta-BHC	↓
58-89-9	Gamma-BHC (Lindane)	↓
76-44-8	Heptachlor	↓
309-00-2	Aldrin	↓
1024-57-3	Heptachlor Epoxide	↓
959-98-8	Endosulfan I	✓
60-57-1	Dieldrin	18.U
72-55-9	4,4'-DDE	↓
72-20-8	Endrin	↓
33213-65-9	Endosulfan II	↓
72-54-8	4,4'-DDD	↓
1031-07-8	Endosulfan Sulfate	↓
50-29-3	4,4'-DDT	✓
72-43-5	Methoxychlor	90.U
53494-70-5	Endrin Ketone	18.U
57-74-9	Chlordane	90.U
8001-35-2	Toxaphene	180.U
12674-11-2	Aroclor-1016	90.U
11104-28-2	Aroclor-1221	↓
11141-16-5	Aroclor-1232	↓
53469-21-9	Aroclor-1242	↓
12672-29-6	Aroclor-1248	✓
11097-69-1	Aroclor-1254	180.U
11096-82-5	Aroclor-1260	✓

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.12 V_t 2000 µl V_i 5 µl

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Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EJ494/10

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed 9/17/87

Conc/Dil Factor: 10

Percent Moisture (decanted) _____

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	90.U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	180.U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	900.U
53494-70-5	Endrin Ketone	180.U
57-74-9	Chlordane	900.U
8001-35-2	Toxaphene	1800.U
12674-11-2	Aroclor-1016	900.U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	1800.U
11096-82-5	Aroclor-1260	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.12 V_t 2000 µl V_i 5 µl

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Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EJ494/100

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed 9/14/87

Conc/Dil Factor: 100

Percent Moisture (decanted) _____

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	1000.U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	2000.U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	10000.U
53494-70-5	Endrin Ketone	~~2000.U~~
57-74-9	Chlordane	10600.
8001-35-2	Toxaphene	20000.U
12674-11-2	Aroclor-1016	10000.U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	3010.
11096-82-5	Aroclor-1260	20000.U

D.L 10,000

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.12g V_t 2000ul V_i 5ul

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Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number E5494/1000

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed 9/17/87

Conc/Dil Factor 1000

Percent Moisture (decanted) _____

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	910 U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	1800 U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	9100 U
53494-70-5	Endrin Ketone	1800 U
57-74-9	Chlordane	9100 U
8001-35-2	Toxaphene	180000 U
12674-11-2	Aroclor-1016	9100 U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	180000 U
11096-82-5	Aroclor-1260	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.12 V_t 2000 ul V_i 5 ul

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Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number
E5-494

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	—	None found	VOA	—	—
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.	110-12-13	5-Methyl-2-Hexanone	BNA	425	2200
12.	100-42-5	Ethenyl-Benzene		486	1300
13.	—	unknown		780	1400
14.	—	unknown hydrocarbon		1399	950
15.	—			1492	1100
16.	—			1498	1400
17.	—	unknown		1669	7500
18.	—			2167	2800
19.	—			2254	2200
20.	205-82-3	Benzo [J] Fluoranthene		2351	2600
21.	—	unknown		2361	2400
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

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Sample Number
EL-337

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: CAL WATER LABS
Lab Sample ID No: C00275V02
Sample Matrix: SOIL
Data Release Authorized By: Ben Tyson

Case No: 7924
QC Report No:
Contract No: 68-01-7277
Date Sample Received: 08/19/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared:
Date Analyzed: 08/25/87
Conc/Dil Factor: 1. pH 8.54
Percent Moisture: (Not Decanted) 21.4

CAS Number		µg/kg	CAS Number		µg/kg
74-87-3	Chloromethane	13. U	78-87-5	1,2-Dichloropropane	6.4U
74-83-9	Bromomethane	13. U	10061-02-6	Trans-1,3-Dichloropropene	6.4U
75-01-4	Vinyl Chloride	13. U	79-01-6	Trichloroethene	6.4U
75-00-3	Chloroethane	13. U	124-48-1	Dibromochloromethane	6.4U
75-09-2	Methylene Chloride	6.4U	79-00-5	1,1,2-Trichloroethane	6.4U
67-64-1	Acetone	33. B	71-43-2	Benzene	6.4U
75-15-0	Carbon Disulfide	6.4U	10061-01-5	cis-1,3-Dichloropropene	6.4U
75-35-4	1,1-Dichloroethene	6.4U	110-75-8	2-Chloroethylvinylether	13. U
75-35-3	1,1-Dichloroethane	6.4U	75-25-2	Bromoform	6.4U
156-60-5	Trans-1,2-Dichloroethene	6.4U	108-10-1	4-Methyl-2-Pentanone	~~13. U~~ 16 B
67-66-3	Chloroform	6.4U	591-78-6	2-Hexanone	18. B
107-06-2	1,2-Dichloroethane	6.4U	127-18-4	Tetrachloroethene	6.4U
78-93-3	2-Butanone	13. U	79-34-5	1,1,2,2-Tetrachloroethane	13. U
71-55-6	1,1,1-Trichloroethane	6.4U	108-88-3	Toluene	6.4U
56-23-5	Carbon Tetrachloride	6.4U	108-90-7	Chlorobenzene	6.4U
108-05-4	Vinyl Acetate	13. U	100-41-4	Ethylbenzene	6.4U
75-27-4	Bromodichloromethane	6.4U	100-42-5	Styrene	6.4U
				Total Xylenes	6.4U

B - Compound was detected in the QC blank.
U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

Form I

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Laboratory Name: CAL WATER LABS
Case No: 7924

Sample Number
EL-337

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 08/28/87
Date Analyzed: 09/02/87
Dil Factor: 5.556
Percent Moisture: (Decanted)

GPC Cleanup X Yes ___ No
Separatory Funnel Extraction ___ Yes
Continuous Liquid-Liquid Extraction ___ Yes

CAS Number		UG/KG	CAS Number		UG/KG
108-95-2	Phenol	2300. U	83-32-9	Acenaphthene	2300. U
111-44-4	bis(2-Chloroethyl)Ether	2300. U	51-28-5	2,4-Dinitrophenol	11000.U
95-57-8	2-Chlorophenol	2300. U	100-02-7	4-Nitrophenol	11000.U
541-73-1	1,3-Dichlorobenzene	2300. U	132-64-9	Dibenzofuran	2300. U
106-46-7	1,4-Dichlorobenzene	2300. U	121-14-2	2,4-Dinitrotoluene	2300. U
100-51-6	Benzyl Alcohol	2300. U	606-20-2	2,6-Dinitrotoluene	2300. U
95-50-1	1,2-Dichlorobenzene	2300. U	84-66-2	Diethylphthalate	2300. U
95-48-7	2-Methylphenol	2300. U	7005-72-3	4-Chlorophenyl-phenylether	2300. U
39638-32-9	bis(2-Chloroisopropyl)Ether	2300. U	86-73-7	Fluorene	2300. U
106-44-5	4-Methylphenol	2300. U	100-10-6	4-Nitroaniline	11000.U
621-64-7	N-Nitroso-Di-n-Propylamine	2300. U	534-52-1	4,6-Dinitro-2-Methylphenol	11000.U
67-72-1	Hexachloroethane	2300. U	86-30-6	N-Nitrosodiphenylamine (1)	2300. U
98-95-3	Nitrobenzene	2300. U	101-55-3	4-Bromophenyl-phenylether	2300. U
78-59-1	Isophorone	4000	118-74-1	Hexachlorobenzene	2300. U
88-75-5	2-Nitrophenol	2300. U	87-86-5	Pentachlorophenol	11000.U
105-67-9	2,4-Dimethylphenol	2300. U	85-01-8	Phenanthrene	11000.
65-85-0	Benzoic Acid	11000.U	120-12-7	Anthracene	1100.
111-91-1	bis(2-Chloroethoxy)Methane	2300. U	84-74-2	Di-n-Butylphthalate	2300. U
120-83-2	2,4-Dichlorophenol	2300. U	206-44-0	Fluoranthene	14000.
120-82-1	1,2,4-Trichlorobenzene	2300. U	129-00-0	Pyrene	15000.
91-20-3	Naphthalene	2300. U	85-68-7	Butylbenzylphthalate	2300. U
106-47-8	4-Chloroaniline	2300. U	91-94-1	3,3'-Dichlorobenzidine	4700. U
87-68-3	Hexachlorobutadiene	2300. U	56-55-3	Benzo(a)Anthracene	9000.
59-50-7	4-Chloro-3-Methylphenol	2300. U	117-81-7	bis(2-Ethylhexyl)Phthalate	11000.
91-57-6	2-Methylnaphthalene	2300. U	218-01-9	Chrysene	8500.
77-47-4	Hexachlorocyclopentadiene	2300. U	117-84-0	Di-n-Octyl Phthalate	2300. U
88-06-2	2,4,6-Trichlorophenol	2300. U	205-99-2	Benzo(b)Fluoranthene	11000.
95-95-4	2,4,5-Trichlorophenol	11000.U	207-08-9	Benzo(k)Fluoranthene	2300. U
91-58-7	2-Chloronaphthalene	2300. U	50-32-8	Benzo(a)Pyrene	6300.
88-74-4	2-Nitroaniline	11000.U	193-39-5	Indeno(1,2,3-cd)Pyrene	6600.
131-11-3	Dimethyl Phthalate	2300. U	53-70-3	Dibenz(a,h)Anthracene	2300. U
208-96-8	Acenaphthylene	2300. U	191-24-2	Benzo(g,h,i)Perylene	11000.
99-09-2	3-Nitroaniline	11000.U			

HRS 5X

2300 D.L

(1) - Cannot be separated from diphenylamine

recycled paper

ecology and environment

Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EL 337

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed 9/18/87

Conc/Dil Factor: 1

Percent Moisture (decanted) _____

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	10. U
319-85-7	Beta-BHC	↓
319-86-8	Delta-BHC	↓
58-89-9	Gamma-BHC (Lindane)	↓
76-44-8	Heptachlor	↓
309-00-2	Aldrin	↓
1024-57-3	Heptachlor Epoxide	↓
959-98-8	Endosulfan I	↓
60-57-1	Dieldrin	20. U
72-55-9	4, 4'-DDE	↓
72-20-8	Endrin	↓
33213-65-9	Endosulfan II	↓
72-54-8	4, 4'-DDD	↓
1031-07-8	Endosulfan Sulfate	↓
50-29-3	4, 4'-DDT	↓
72-43-5	Methoxychlor	100. U
53494-70-5	Endrin Ketone	20. U
57-74-9	Chlordane	100. U
8001-35-2	Toxaphene	200. U
12674-11-2	Aroclor-1016	100. U
11104-28-2	Aroclor-1221	↓
11141-16-5	Aroclor-1232	↓
53469-21-9	Aroclor-1242	↓
12672-29-6	Aroclor-1248	↓
11097-69-1	Aroclor-1254	200. U
11096-82-5	Aroclor-1260	↓

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 29.94 V_t 2000 ul V_i 5 ul

Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EL 337/10

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed 9/17/87

Conc/Dil Factor 10

Percent Moisture (decanted) _____

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	100.U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	200.U
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	1000.U
53494-70-5	Endrin Ketone	200.U
57-74-9	Chlordane	1000.U
8001-35-2	Toxaphene	2000.U
12674-11-2	Aroclor-1016	1000.U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	2000.U
11096-82-5	Aroclor-1260	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 29.94 V_t 2000 µl V_i 5 µl

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recycled paper ecology and environment

Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EL 337/100

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed 9/14/87

Conc/Dil Factor: 100

Percent Moisture (decanted)

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha BHC	1000.U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	2000.U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	~~720.5~~ 2000.U Dan
33213-65-9	Endosulfan II	2000.U
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	10000.U
53494-70-5	Endrin Ketone	2000.U
57-74-9	Chlordane	10000.U
8001-35-2	Toxaphene	20000.U
12674-11-2	Aroclor-1016	10000.U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	10800.5
11096-82-5	Aroclor-1260	20000.U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 29.94 V_t 2000 µl V_i 5 µl

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Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EL337/1000

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium / (Cycle One)

Date Extracted/Prepared 8/28/87

Date Analyzed 9/17/87

Conc/Dil Factor 1000

Percent Moisture (decanted)

GPC Cleanup ☒Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	10000.U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	↓
60-57-1	Dieldrin	20000.U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	↓
72-43-5	Methoxychlor	100000.U
53494-70-5	Endrin Ketone	20000.U
57-74-9	Chlordane	100000.U
8001-35-2	Toxaphene	200000.U
12674-11-2	Aroclor-1016	100000.U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	↓
11097-69-1	Aroclor-1254	200000.U
11096-82-5	Aroclor-1260	↓

V_t = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 29.94 V_t 2000 µl V_i 5 µl

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Laboratory Name: CALIFORNIA WATER LABS

Case No: 7924

Sample Number: EL-337

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 593-75-9	Isocyano-Methane	VOA	.63	12
2.	~~5,5-Dimethyl-2-Hexene~~	↓	~~446~~	~~10~~ RM
3. 39761-61-0	(Z)-5,5-Dimethyl-2-Hexene	↓	446	10
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11. 629-20-9	1,3,5,7-Cyclooctatetraene	BNA	506	2100
12. 98-82-8	(1-Methylethyl)-Benzene		567	1100
13. 98-86-2	1-Phenyl-Ethanone		790	2900
14. 617-94-7	Benzenemethanol, Alpha.,		820	2500
15.	Alpha.-Dimethyl-			
16. —	unknown		1672	8100
17. 2531-84-2	2-Methyl-Phenanthrene		1688	2200
18. 832-64-4	4-Methyl-Phenanthrene		1703	2600
19. 17851-53-5	Butyl 2-Methylpropyl Ester		1724	2600
20.	1,2-Benzenedicarboxylic Acid			
21. —	unknown		1743	4600
22. 2381-21-7	1-Methyl-Pyrene		1934	3000
23. —	unknown		1952	3600
24. —	↓		2171	4800
25. ~~119-07-3~~	~~Decyl Octyl Ester 1,2 Benzenedicarbox~~ RM			
26. 119-07-3	Decyl Octyl Ester		2257	4200
27.	1,2-Benzenedicarbox			
28. 205-82-3	Benzo[j]Fluoranthene	↓	2358	7300
29.				
30.				

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ecology and environment

Sample Number
EL-338

ORGANICS ANALYSIS DATA SHEET

Page 1)

Laboratory Name: CAL WATER LABS
Lab Sample ID No: C00276VO
Sample Matrix: SOIL
Data Release Authorized By: Bill Tyson

Case No: 7924
QC Report No:
Contract No: 68-01-7277
Date Sample Received: 08/19/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared:
Date Analyzed: 09/25/87
Conc/Dil Factor: 1. pH 8.64
Percent Moisture: (Not Decanted) 18.8

CAS Number		µg/kg	CAS Number		µg/kg
74-87-3	Chloromethane	12. U	78-87-5	1,2-Dichloropropane	6.2U
74-83-9	Bromomethane	12. U	10061-02-6	Trans-1,3-Dichloropropene	6.2U
75-01-4	Vinyl Chloride	12. U	79-01-6	Trichloroethene	19.
75-00-3	Chloroethane	12. U	124-48-1	Dibromochloromethane	6.2U
75-09-2	Methylene Chloride	6.2U	79-00-5	1,1,2-Trichloroethane	5.6J
67-64-1	Acetone	27. B	71-43-2	Benzene	6.2U
75-15-0	Carbon Disulfide	6.2U	10061-01-5	cis-1,3-Dichloropropene	6.2U
75-35-4	1,1-Dichloroethene	6.2U	110-75-8	2-Chloroethylvinylether	12. U
75-35-3	1,1-Dichloroethane	6.2U	75-25-2	Bromoform	6.2U
156-60-5	Trans-1,2-Dichloroethene	6.2U	108-10-1	4-Methyl-2-Pentanone	12. U
67-66-3	Chloroform	6.2U	591-78-6	2-Hexanone	12U
107-06-2	1,2-Dichloroethane	6.2U	127-18-4	Tetrachloroethene	24.
78-93-3	2-Butanone	12. U	79-34-5	1,1,2,2-Tetrachloroethane	12. U
71-55-6	1,1,1-Trichloroethane	6.2U	108-88-3	Toluene	6.2U
56-23-5	Carbon Tetrachloride	6.2U	108-90-7	Chlorobenzene	6.2U
108-05-4	Vinyl Acetate	12. U	100-41-4	Ethylbenzene	6.2U
75-27-4	Bromodichloromethane	6.2U	100-42-5	Styrene	6.2U
				Total Xylenes	6.2U

B - Compound was detected in the QC blank.
J - Reported value is less than the detection limit.
U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

Form I

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Laboratory Name: CAL WATER LABS
Case No: 7924

Sample Number
EL-338

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 08/28/87
Date Analyzed: 09/02/87
Dil Factor: 5.556
Percent Moisture: (Decanted)

GPC Cleanup X Yes ___ No
Separatory Funnel Extraction ___ Yes
Continuous Liquid-Liquid Extraction ___ Yes

CAS Number		UG/KG	CAS Number		UG/KG
108-95-2	Phenol	2300. U	83-32-9	Acenaphthene	2300. U
111-44-4	bis(2-Chloroethyl)Ether	2300. U	51-28-5	2,4-Dinitrophenol	11000.U
95-57-8	2-Chlorophenol	2300. U	100-02-7	4-Nitrophenol	11000.U
541-73-1	1,3-Dichlorobenzene	2300. U	132-64-9	Dibenzofuran	2300. U
106-46-7	1,4-Dichlorobenzene	2300. U	121-14-2	2,4-Dinitrotoluene	2300. U
100-51-6	Benzyl Alcohol	2300. U	606-20-2	2,6-Dinitrotoluene	2300. U
95-50-1	1,2-Dichlorobenzene	2300. U	84-66-2	Diethylphthalate	2300. U
95-48-7	2-Methylphenol	2300. U	7005-72-3	4-Chlorophenyl-phenylether	2300. U
39638-32-9	bis(2-Chloroisopropyl)Ether	2300. U	86-73-7	Fluorene	2300. U
106-44-5	4-Methylphenol	2300. U	100-10-6	4-Nitroaniline	11000.U
621-64-7	N-Nitroso-Di-n-Propylamine	2300. U	534-52-1	4,6-Dinitro-2-Methylphenol	11000.U
67-72-1	Hexachloroethane	2300. U	86-30-6	N-Nitrosodiphenylamine (1)	2300. U
98-95-3	Nitrobenzene	2300. U	101-55-3	4-Bromophenyl-phenylether	2300. U
78-59-1	Isophorone	3800.	118-74-1	Hexachlorobenzene	2300. U
88-75-5	2-Nitrophenol	2300. U	87-86-5	Pentachlorophenol	11000.U
105-67-9	2,4-Dimethylphenol	2300. U	85-01-8	Phenanthrene	3200.
65-85-0	Benzoic Acid	11000.U	120-12-7	Anthracene	3200.
111-91-1	bis(2-Chloroethoxy)Methane	2300. U	84-74-2	Di-n-Butylphthalate	2800.
120-83-2	2,4-Dichlorophenol	2300. U	206-44-0	Fluoranthene	4300.
120-82-1	1,2,4-Trichlorobenzene	2300. U	129-00-0	Pyrene	4700
91-20-3	Naphthalene	2300. U	85-68-7	Butylbenzylphthalate	2300. U
106-47-8	4-Chloroaniline	2300. U	91-94-1	3,3'-Dichlorobenzidine	4500. U
87-68-3	Hexachlorobutadiene	2300. U	56-55-3	Benzo(a)Anthracene	2800.
59-50-7	4-Chloro-3-Methylphenol	2300. U	117-81-7	bis(2-Ethylhexyl)Phthalate	11000.
91-57-6	2-Methylnaphthalene	2300. U	218-01-9	Chrysene	2600.
77-47-4	Hexachlorocyclopentadiene	2300. U	117-84-0	Di-n-Octyl Phthalate	2300. U
88-06-2	2,4,6-Trichlorophenol	2300. U	205-99-2	Benzo(b)Fluoranthene	4500.
95-95-4	2,4,5-Trichlorophenol	11000.U	207-08-9	Benzo(k)Fluoranthene	2300. U
91-58-7	2-Chloronaphthalene	2300. U	50-32-8	Benzo(a)Pyrene	2400.
88-74-4	2-Nitroaniline	11000.U	193-39-5	Indeno(1,2,3-cd)Pyrene	3500.
131-11-3	Dimethyl Phthalate	2300. U	53-70-3	Dibenz(a,h)Anthracene	2300. U
208-96-8	Acenaphthylene	2300. U	191-24-2	Benzo(g,h,i)Perylene	6200.
99-09-2	3-Nitroaniline	11000.U			

2300 P.L.

2300 P.L.

(1) - Cannot be separated from diphenylamine

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ecology and environment

Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EL 338

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed 9/18/87

Conc/Dil Factor 1

Percent Moisture (decanted)

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	10. U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	20. U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	100. U
53494-70-5	Endrin Ketone	20. U
57-74-9	Chlordane	100. U
8001-35-2	Toxaphene	200. U
12674-11-2	Aroclor-1016	100. U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	200. U
11096-82-5	Aroclor-1260	

V_t = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 29.92 V_t 2000 µl V_t 5 µl

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Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EL 338/10

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed 9/17/87

Conc/Dil Factor 10

Percent Moisture (decanted)

GPC Cleanup ☒Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	100.U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	200.U
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	1000.U
53494-70-5	Endrin Ketone	200.U
57-74-9	Chlordane	1000.U
8001-35-2	Toxaphene	2000.U
12674-11-2	Aroclor-1016	1000.U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	2000.U
11096-82-5	Aroclor-1260	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 29.92 V_t 2000 µl V_i 5 µl

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ecology and environment

Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EL 338/100

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed 9/14/87

Conc/Dil Factor: 100

Percent Moisture (decanted)

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha BHC	1000.U	
319-85-7	Beta-BHC		
319-86-8	Delta-BHC		
58-89-9	Gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor Epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin	2000.U	
72-55-9	4, 4'-DDE		
72-20-8	Endrin	~~577.J~~	2000.U DCM
33213-65-9	Endosulfan II	2000.U	
72-54-8	4, 4'-DDD		
1031-07-8	Endosulfan Sulfate		
50-29-3	4, 4'-DDT		
72-43-5	Methoxychlor	10000.U	
53494-70-5	Endrin Ketone	2000.U	
57-74-9	Chlordane	20400.	D.L. 10,000
8001-35-2	Toxaphene	20000.U	
12674-11-2	Aroclor-1016	10000.U	
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-21-9	Aroclor-1242		
12672-29-6	Aroclor-1248		
11097-69-1	Aroclor-1254	10120.J	
11096-82-5	Aroclor-1260	20000.U	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 29.92 g V_t 2000 µl V_i 5 µl

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ecology and environment

Laboratory Name CALIFORNIA WATER LABS

Case No 7924

Sample Number EL 338/1000

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 8/28/87

Date Analyzed 9/17/87

Conc/Dil Factor: 1000

Percent Moisture (decanted) _____

GPC Cleanup ☒ Yes ☐ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/kg (Circle One)
319-84-6	Alpha-BHC	9900 u
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	20000 u
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	99000 u
53494-70-5	Endrin Ketone	20000 u
57-74-9	Chlordane	99000 u
8001-35-2	Toxaphene	200000 u
12674-11-2	Aroclor-1016	99000 u
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	200000 u
11096-82-5	Aroclor-1260	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 29.92 V_t 2000 µl V_i 5 µl

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Laboratory Name: CALIFORNIA WATER LABS

Case No: 7924

Sample Number: EL-338

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
23	1. 593-75-9	Isocyano-Methane	VOA	64	16
	2.				
	3.				
	4.				
	5.				
	6.				
	7.				
	8.				
	9.				
	10.				
1657	11. 694-87-1	Bicyclo[4.2.0]Octa-1,3,5-Triene	BNA	485	2300
	12. 98-86-2	1-Phenyl-Ethanone		783	2700
	13. —	unknown		862	4000
	14.			1401	1600
	15. —			1673	18000
	16. 613-73-0	1,2-Benzenediacetonitrile		1742	3300
	17. 21641-70-3	4,7-Methano-1H-Indene,1,2,3,4,5,6,7,8,8-Nonachloro-3A,4,7,7A-Tetrahyl		1879	2800
	18.				
	19. —	unknown		1952	2500
	20. 1241-94-7	2-Ethylhexyl Diphenyl Ester Phosphoric Acid		2069	2500
	21. —	unknown		2171	5000
	22.				
	23.				
	24.				
	25.				
	26.				
	27.				
	28.				
	29.				
	30.				

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| Sample Number
| ET-104 RE

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: CAL WATER LABS
Case No: 7924
Lab Sample ID No: CDW235 SB
QC Report No:
Sample Matrix: SOIL
Contract No: 68-01-7277
Data Release Authorized By: Ben Tyson
Date Sample Received: 08/20/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared:
Date Analyzed: 08/30/87
Conc/Dil Factor: 1. pH 8.22
Percent Moisture: (Not Decanted) 17.2

CAS Number		ug/kg	CAS Number		ug/kg
74-87-3	Chloromethane	12. U	78-87-5	1,2-Dichloropropane . . .	6.0U
74-83-9	Bromomethane	12. U	10061-02-6	Trans-1,3-Dichloropropene .	6.0U
75-01-4	Vinyl Chloride	12. U	79-01-6	Trichloroethene	6.0U
75-00-3	Chloroethane	12. U	124-48-1	Dibromochloromethane . . .	6.0U
75-09-2	Methylene Chloride	6.0U	79-00-5	1,1,2-Trichloroethane . .	6.0U
67-64-1	Acetone	28.	71-43-2	Benzene	6.0U
75-15-0	Carbon Disulfide	24.	10061-01-5	cis-1,3-Dichloropropene .	6.0U
75-35-4	1,1-Dichloroethene	6.0U	110-75-8	2-Chloroethylvinylether .	12. U
75-35-3	1,1-Dichloroethane	6.0U	75-25-2	Bromoform	6.0U
156-60-5	Trans-1,2-Dichloroethene .	6.0U	591-78-6	2-Hexanone	12. U
67-66-3	Chloroform	6.0U	108-10-1	4-Methyl-2-Pentanone . . .	12. U
107-06-2	1,2-Dichloroethane	6.0U	127-18-4	Tetrachloroethene . . .	.52J 6.0
78-93-3	2-Butanone	12. U	79-34-5	1,1,2,2-Tetrachloroethane	12. U
71-55-6	1,1,1-Trichloroethane . .	6.0U	108-88-3	Toluene	12.
56-23-5	Carbon Tetrachloride . . .	6.0U	108-90-7	Chlorobenzene	6.0U
108-05-4	Vinyl Acetate	12. U	100-41-4	Ethylbenzene	6.0U
75-27-4	Bromodichloromethane . . .	6.0U	100-42-5	Styrene	6.0U
				Total Xylenes	6.0U

U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

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Sample Number
ET-104

ORGANICS ANALYSIS DATA SHEET

Page 1

Laboratory Name: CAL WATER LABS
Case No: 7924
Lab Sample ID No: C00285VOA
QC Report No:
Sample Matrix: SOIL
Contract No: 68-01-[illegible]
Data Release Authorized By: [signature]
Date Sample Received: 08/20/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared:
Date Analyzed: 08/30/87
Conc/Dil Factor: 1. pH 8.22
Percent Moisture: (Not Decanted) 17.2

CAS Number		ug/kg	CAS Number		ug/kg
74-87-3	Chloromethane	12. U	78-87-5	1,2-Dichloropropane	6.0U
74-83-9	Bromomethane	12. U	10061-02-6	Trans-1,3-Dichloroproene	6.0U
75-01-4	Vinyl Chloride	12. U	79-01-6	Trichloroethene	6.0U
75-00-3	Chloroethane	12. U	124-48-1	Dibromochloromethane	6.0U
75-09-2	Methylene Chloride	6.0U	79-00-5	1,1,2-Trichloroethane	6.0U
67-64-1	Acetone	25.	71-43-2	Benzene	6.0U
75-15-0	Carbon Disulfide	6.0U	10061-01-5	cis-1,3-Dichloropropene	6.0U
75-35-4	1,1-Dichloroethene	6.0U	110-75-8	2-Chloroethylvinylether	12. U
75-35-3	1,1-Dichloroethane	6.0U	75-25-2	Bromoform	6.0U
156-60-5	Trans-1,2-Dichloroethene	6.0U	591-78-6	2-Hexanone	12. U
67-66-3	Chloroform	6.0U	108-10-1	4-Methyl-2-Pentanone	12. U
107-06-2	1,2-Dichloroethane	6.0U	127-18-4	Tetrachloroethene	6.0U
78-93-3	2-Butanone	12. U	79-34-5	1,1,2,2-Tetrachloroethane	12. U
71-55-6	1,1,1-Trichloroethane	6.0U	108-88-3	Toluene	6.1
56-23-5	Carbon Tetrachloride	6.0U	108-90-7	Chlorobenzene	6.0U
108-05-4	Vinyl Acetate	12. U	100-41-4	Ethylbenzene	6.0U
75-27-4	Bromodichloromethane	6.0U	100-42-5	Styrene	6.0U
				Total Xylenes	6.0U

U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

Form I

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Laboratory Name: CAL WATER LABS
Case No: 7924

Sample Number
ET:04

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: MEDIUM
Date Extracted/Prepared: 08/27/87
Date Analyzed: 09/01/87
Dil Factor: 4.000
Percent Moisture: (Decanted) _____

GPC Cleanup ___ Yes _X_ No
Separatory Funnel Extraction ___ Yes
Continuous Liquid-Liquid Extraction ___ Yes

CAS Number		ug/kg	CAS Number		ug/kg
108-95-2	Phenol	96000.U	83-32-9	Acenaphthene	96000.U
111-44-4	bis(2-Chloroethyl)Ether	96000.U	51-28-5	2,4-Dinitrophenol	460000U
95-57-8	2-Chlorophenol	96000.U	100-02-7	4-Nitrophenol	460000U
541-73-1	1,3-Dichlorobenzene	96000.U	132-64-9	Dibenzofuran	96000.U
106-46-7	1,4-Dichlorobenzene	96000.U	121-14-2	2,4-Dinitrotoluene	96000.U
100-51-6	Benzyl Alcohol	96000.U	606-20-2	2,6-Dinitrotoluene	96000.U
95-50-1	1,2-Dichlorobenzene	96000.U	84-66-2	Diethylphthalate	96000.U
95-48-7	2-Methylphenol	96000.U	7005-72-3	4-Chlorophenyl-phenylether	96000.U
39638-32-9	bis(2-Chloroisopropyl)Ether	96000.U	86-73-7	Fluorene	96000.U
106-44-5	4-Methylphenol	96000.U	100-10-6	4-Nitroaniline	460000U
621-64-7	N-Nitroso-Di-n-Propylamine	96000.U	534-52-1	4,6-Dinitro-2-Methylphenol	460000U
67-72-1	Hexachloroethane	96000.U	86-30-6	N-Nitrosodiphenylamine (1)	96000.U
98-95-3	Nitrobenzene	96000.U	101-55-3	4-Bromophenyl-phenylether	96000.U
78-59-1	Isophorone	96000.U	118-74-1	Hexachlorobenzene	96000.U
88-75-5	2-Nitrophenol	96000.U	87-86-5	Pentachlorophenol	460000U
105-67-9	2,4-Dimethylphenol	96000.U	85-01-8	Phenanthrene	96000.U
65-85-0	Benzoic Acid	460000U	120-12-7	Anthracene	96000.U
111-91-1	bis(2-Chloroethoxy)Methane	96000.U	84-74-2	Di-n-Butylphthalate	96000.U
120-83-2	2,4-Dichlorophenol	96000.U	206-44-0	Fluoranthene	96000.U
120-82-1	1,2,4-Trichlorobenzene	96000.U	129-00-0	Pyrene	96000.U
91-20-3	Naphthalene	96000.U	85-68-7	Butylbenzylphthalate	96000.U
106-47-8	4-Chloroaniline	96000.U	91-94-1	3,3'-Dichlorobenzidine	190000U
87-68-3	Hexachlorobutadiene	96000.U	56-55-3	Benzo(a)Anthracene	96000.U
59-50-7	4-Chloro-3-Methylphenol	96000.U	117-81-7	bis(2-Ethylhexyl)Phthalate	47000.J
91-57-6	2-Methylnaphthalene	96000.U	218-01-9	Chrysene	96000.U
77-47-4	Hexachlorocyclopentadiene	96000.U	117-84-0	Di-n-Octyl Phthalate	96000.U
88-06-2	2,4,6-Trichlorophenol	96000.U	205-99-2	Benzo(b)Fluoranthene	96000.U
95-95-4	2,4,5-Trichlorophenol	460000U	207-08-9	Benzo(k)Fluoranthene	96000.U
91-58-7	2-Chloronaphthalene	96000.U	50-32-8	Benzo(a)Pyrene	96000.U
88-74-4	2-Nitroaniline	460000U	193-39-5	Indeno(1,2,3-cd)Pyrene	96000.U
131-11-3	Dimethyl Phthalate	96000.U	53-70-3	Dibenz(a,h)Anthracene	96000.U
208-96-8	Acenaphthylene	96000.U	191-24-2	Benzo(g,h,i)Perylene	96000.U
99-09-2	3-Nitroaniline	460000U			

(1) - Cannot be separated from diphenylamine

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Laboratory Name CALIFORNIA WATER LABS.

Case No 7924

Sample Number ET 104/100

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared: 8/28/87

Date Analyzed: 9/4/87

Conc/(Dil) Factor: 100

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	14000 U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	✓
60-57-1	Dieldrin	28000 U
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	✓
72-43-5	Methoxychlor	140000. U
53494-70-5	Endrin Ketone	28000. U
57-74-9	Chlordane	140000. U
8001-35-2	Toxaphene	280000. U
12674-11-2	Aroclor-1016	140000. U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	✓
11097-69-1	Aroclor-1254	280000. U
11096-82-5	Aroclor-1260	✓

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 2.01 V_t 2000 µl V_i 5 µl

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Laboratory Name CALIFORNIA WATER LABS

Case No. 7924

Sample Number ET104/10

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted Prepared 8/28/87

Date Analyzed 9/3/87

Conc Di Factor 10

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	1400.U
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	V
60-57-1	Dieldrin	2800.U
72-55-9	4, 4'-DDE	V
72-20-8	Endrin	650.J
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	V
72-43-5	Methoxychlor	14000.U
53494-70-5	Endrin Ketone	2800.U
57-74-9	Chlordane	5600.J
8001-35-2	Toxaphene	28000.U
12674-11-2	Aroclor-1016	14000.U
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	V
11097-69-1	Aroclor-1254	28000.U
11096-82-5	Aroclor-1260	V

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 2.01 V_t 2000 µl V_i 5 µl

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Laboratory Name: CALIFORNIA WATER LABS

Case No: 7924

Sample Number
ET-104

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. —	None Found	VOA	—	—
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11. —	UNKNOWN	BNA	1843	11200
12. —	↓	↓	2306	5200
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
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25.				
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30.				

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111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604 TEL 312 663 9415
International Specialists in the Environment

CRL Receipt Date 10/7 FIT Receipt Date 11/) Review Completed 11/ 87

TO: Jeff Carman

FROM: Zena Gold-Kaufman

SUBJECT: US Scrap

PAN: IL0102 CASE # 7924

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
#	Low Soil	# 12	Low Soil
	Low Water		Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status _____ Completed!!

_____ Incomplete, awaiting: _____

FIT Data Review Findings:

Check Data Sheets for Transcription Errors

✓ Compounds were detected in sample(s); see enclosed sheet.

Book No. _____ Page No. 266 Date Sampled 7/8

26U:001

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CHEMICAL EVALUATION FORM

SITE NAME: US Scrap PAN# _____ DATE: _____

CASE # 7924 UNITS- _____ REVIEWER: _____

TOX/ PERS	COMPOUND	CRDL	3-5xCRDL	MEU 727	728	729	730	MED		
	ALUMINUM									
	ANTIMONY									
	ARSENIC			7.6	11	17	14			
	BARIUM									
	BERYLLIUM			[1.0]	[0.63]	[0.77]	[1.6]			
	CADMIUM				3.4	40	44	[38]		
	CHROMIUM			169	431	904	372	47		
	COBALT			[7.4]	[15]	[22]	[6.9]	[7.8]		
	COPPER			180	489	450	302	46		
	LEAD			402	1100	3000	976	59		
	MERCURY			0.49	0.57	1.1				
	NICKEL			40	176	107	83	33		
	SELENIUM									
	SILVER									
	THALLIUM									
	TIN			[15]	[22]	[22]	[21]			
	VANADIUM			[43	46	[26]	31	[15]		
	ZINC									
	CYANIDE			1.4	37	52	39			

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CHICAGO, ILLINOIS

CHEMICAL EVALUATION FORM

SITE NAME: US Scrap PAN# _____ DATE: _____

CASE # 7924 UNITS- _____ REVIEWER: _____

TOX/ PERS	COMPOUND	CRDL	3-5xCRDL	647	721	722	723	724	725	726
	ALUMINUM									
	ANTIMONY				55				[25]	~~[illegible]~~
	ARSENIC			10	~~[illegible]~~ 15	25	11	16	11	12
	BARIUM									
	BERYLLIUM			[1.1]	[2.6]	[1.7]	[1.6]	[1.3]	[0.9]	[0.72]
	CADMIUM			5.6	1.7	4.5	3.1	7.3	3.2	4.3
	CHROMIUM			223	296	339	239	348	492	303
	COBALT			[3.7]	[3.4]	[7.1]	[1.1]	[1.3]	[12] ~~326~~	[10]
	COPPER			222	39100	233	679	394 ~~[illegible]~~	326	206
	LEAD			507	71100	1070	826	1390	1370	1280
	MERCURY			0.63	0.99	0.56	0.67	1.2	1.0	1.2
	NICKEL				82	71	24	439	349	180
	SELENIUM									
	SILVER				79					[2.4]
	THALLIUM									
	TIN			[19]	172	24	[illegible]	[15]		[19]
	VANADIUM			35	30	36	39	[illegible]	45	48
	ZINC									
	CYANIDE			0.31	1.5	[illegible]		[illegible]	2.5	2.5

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

3 pages

DATE: 11-5-87

SUBJECT: Review of Region V CLP Data
Received for Review on 10-7-87

FROM: Curtis Ross, Director (5SCRL)
Central Regional Laboratory Jay Thakker

TO: Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME: U.S. SCRAP SMO case No. [illegible]

EPA Data Set No. SF 4346 No. of Samples: 12 D.U./Activity Numbers [illegible]

CRL No. 87FC16535-S46

SMO Traffic No. MEL039, MEU647, MEU721-7[illegible]

CLP Laboratory: RMAL Hrs. Required for Review: 5½

Following are our findings: pg 1 of 2

This review covers 12 soil samples, eleven low conc and one medium concentration analyzed for metals and cyanide. Since the samples have separate sets of quality controls for each concentration and each concentration set has a different soil texture, the data will be assessed separately.

For the low concentration soils, spike recoveries for Sb (39%) and As (68%) are biased low and Sb & As are estimated (J). All duplicate RPDs are below the accepted value of 35% for soils and the '*' flags may be removed from Al, Fe, Pb and Mg. Serial dilution for Zn is within 10%, and diluted sample for Cu is less than 10x IDL so the '*' flags may be removed from these elements. Values for MEU721 have been corrected to reflect the undiluted sample†, although there is not a significant difference

† except Sn which has interelement correction from Pb, which was over linear range in undiluted sample (cont'd next pg.)

( ) Data are acceptable for use.
(✓) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

Continue Next Page

cc: Duane Geuder, Quality Assurance Officer, EPA Support Services
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

EPA FORM 1320-6 (Rev. 5/87)

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DATA QUALIFIERS

Site U.S. Scrap

Contractor: RMAL

Case 7924

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

For the medium concentration soil MEL039, arsenic spike recovery was 150% and biased high. Since As was undetected in the sample even though bias is high the As value is acceptable and 'R' may be removed. Antimony spike recovery (57%) is biased low & the detection limit may be raised. Antimony is estimated (UJ). Manganese spike recovery ~~is~~ (54%) is biased low and Mn is estimated in the medium soil. Cyanide spike recovery was twice less than 20% on two different preparations and the possibility of false negatives exists. The detection limit is higher than reported. Cyanide data in MEL039 is unusable (R). Duplicate is out of control for Cr and Cr is estimated (J). Manganese is also estimated because of duplicate out of window.

Raymond V. Lucia
11.5.87

Reviewed by:

Phone: 883-1974

Date:

[redacted]
ORGANICS/INORGANICS [redacted] DUE DATE [redacted]

SUPERFUND 4346 THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

NUMBER/SAS No. 7924 SITE NAME U.S. Scrap IWY306 LABORATORY CAL/CHEM DATE SHIPPED 3/17/19/87

SUPERFUND DU NUMBER 4405 EPA RPM or OSC (S.M.S.)/(CES) ________ CERCLIS NUMBER ILD047676 19484 PAGE 1 OF 1

ACTIVITY NUMBER C1 BKD

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER	INORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	WATER OR LIQUIDS: ACID BASE NEUTRAL CPDS ORGANIC SCAN UG L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG L TOX17564	WATER POLYCHLORINATED BIPHENYLS UG L PES17144	WATER CHLORINATED PESTICIDES UG L PES17134	TOTAL METALS IN WATER UG L MET111	WATER CYANIDE UG L WIN74919	NITRATE NITRITE MG L WIN7284	AMMONIA MG L WIN7294	RESIDUE FILTERABLE TDS MG L WIN7362	RESIDUE NON FILT TSS MG L WIN7372	SEDIMENTS or SOILS: ACID BASE NEUTRAL CPDS ORGANIC SCAN MG KG TOX215722	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG KG TOX215622	SEDIMENTS POLYCHLORINATED BIPHENYLS MG KG PES211422	SEDIMENT CHLORINATED PESTICIDES MG KG 211322	TOTAL METALS MG KG MET413	CYANIDE MG KG WIN4493	EP TOXICITY METALS MG KG	AMMONIA MG KG WIN42925
1FC16535	C5490	MCL039											✓	✓	✓	✓	✓	✓		
1FC16536	C5491	MC31047											✓	✓	✓	✓	✓	✓		
1FC16537	C5492	MCU721											✓	✓	✓	✓	✓	✓		
1FC16538	C5493	MCU722											✓	✓	✓	✓	✓	✓		
1FC16539	C5494	MCU723											✓	✓	✓	✓	✓	✓		
1FC16540	CL331	MCU724											✓	✓	✓	✓	✓	✓		
1FC16541	CL332	MCU725											✓	✓	✓	✓	✓	✓		
1FC16542	CH436	MCU726											✓	✓	✓	✓	✓	✓		
1FC16543	CH437	MCU727											✓	✓	✓	✓	✓	✓		
1FC16544	CH438	MCU728											✓	✓	✓	✓	✓	✓		
1FC16545	C4786	MCU729											✓	✓	✓	✓	✓	✓		
1FC16546	ET104	MCU730											✓	✓	✓	✓	✓	✓		

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In Reference to Case No(s):
7924

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
Telephone Record Log

Date of Call: [illegible] 3, 1987

Laboratory Name: [illegible]

Lab Contact: [illegible]

Region: V

Regional Contact: [illegible]

Call Initiated By: ___ Laboratory ✓ Region

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

Summary of Questions/Issues Discussed:

(1) [illegible]
(2) [illegible]
(3) [illegible]
(4) [illegible]

Summary of Resolution:

(1) [illegible]
(2) Agree
(3) [illegible]
(4) [illegible]

[illegible] [illegible]
Signature Date

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

QC EXCEPTION SUMMARY REPORT

CASE # 7424 SITE [illegible]
DATA SET # [illegible] LAB [illegible]
LAB Q.C.# [illegible] REVIEWED BY [illegible]
DATE: [illegible]

MATRIX: soil ~~WATER~~ SAMPLE SPK. ME 3647
CONC. : [illegible] ~~WATER~~ SAMPLE DUP. ME 3647
MATRIX: soil SOIL SAMPLE SPK. ME 0039
CONC. medium SOIL SAMPLE DUP.

	OVERALL CASE QC									MATRIX SPECIFIC QC						SAMPLE SPECIFIC QC		FIELD QC			REGIONAL QC			OTHER/ COMMENTS
	Holding Time	Cal Blanks	Init Calver	Contin Calver	Prep Blk AQ	Prep Blk SOL	ICS %R	LCS % AQ	LCS % SOL	Sol Dup RPD	Sol Spk %R	AQ Dup RPD	AQ Spk %R	Ser Dilu AQ	Ser Dilu SOL	GFAA Dup	GFAA Spike	Blank	Dup RPD	Spike %R	Blind Blank	Blind Spike %R	Split Sample RPD	
minum	✓	✓								22 <CR														
mony											39/50													
nic											68/120													
um																								
llium																								
nium																								
um																								
mium										137	~~[illegible]~~													
ll																								
er															<10/10%									
										21 <CR														
										21 <CR														
nesium										25 <CR														
ganese										151	144													
ury																								
l																								
nium																								
um																								
m																								
um																								
sium																								
															0 < 10%									
ue											116													

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U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison St. - Alexandria, VA 22314
703/557-2490 FTS: 8-557-2490

Date 9-28-87

COVER PAGE
INORGANIC ANALYSIS DATA PACKAGE

Lab Name ROCKY MOUNTAIN ANALYTICAL
SOW No. 784

Case No. 7924
QC Report No. 87223

Sample Numbers

EPA No.	Lab ID No.	EPA No.	Lab ID No.
ME3647D		MEU726	
ME3647		MEU727	
ME3647S		MEU728	
MEU721		MEU729	
~~MEU721~~ MW		MEU730	
MEU722		(MEU999)	
MEU723			
MEU724			
MEU725			

RECEIVED
LAB.

Comments: 11 LOW SOILS FOR TOTAL METALS AND CYANIDE ANALYSIS
SERIAL DILUTION OF SAMPLE MEU730 IS IDENTIFIED AS (MEU999)
Interference noted for Zinc on Serial Dilution
INTERFERENCE NOTED FOR COPPER ON SERIAL DILUTION

ICP Interelement and background corrections applied? Yes X No ___
If yes, corrections applied before X or after ___ generation of raw data.

Footnotes:

NR - not required by contract at this time
Form I:
Value - If the result is a value greater than or equal to the instrument detection limit but less than the contract required detection limit, report the value in brackets (i.e., [10]). Indicate the method used with P (for ICP/Flame AA) or F (for Furnace).
U - Indicates element was analyzed for but not detected. Report with the detection limit value (e.g., 100).
E - Indicates a value estimated or not reported due to the presence of interference. Explanatory note included on cover page.
S - Indicates value determined by Method of Standard Addition.
N - Indicates spike sample recovery is not within control limits.
* - Indicates duplicate analysis is not within control limits.
+ - Indicates the correlation coefficient for method of standard addition is less than 0.995
CV - Indicates Cold Vapor
AS - Indicates Automated Spectrophotometric

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EPA Sample No.
ME3647

Date 9-28-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 7924
QC REPORT NO. 87223

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	11400	P	13.	MAGNESIUM	19100	P
2.	ANTIMONY	15U	P	14.	MANGANESE	1230	P
3.	ARSENIC	10	F	15.	MERCURY	0.63	CV
4.	BARIUM	188	P	16.	NICKEL	101	P
5.	BERYLLIUM	[1.1]	P	17.	POTASSIUM	[1460]	P
6.	CADMIUM	5.6	P	18.	SELENIUM	3U	P
7.	CALCIUM	59800	P	19.	SILVER	2.4U	P
8.	CHROMIUM	223	P	20.	SODIUM	[663]	P
9.	COBALT	[8.7]	P	21.	THALLIUM	6U	F
10.	COPPER	222	P	22.	TIN	[19]	P
11.	IRON	21800	P	23.	VANADIUM	35	P
12.	LEAD	507	P	24.	ZINC	604	P

Cyanide 0.81 AS Percent Solids (%) 83

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

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EPA Sample No.
MEU721

Date 9-28-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 7924
QC REPORT NO. 87223

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	~~17000~~	P	13.	MAGNESIUM	10000	P
2.	ANTIMONY	165	P	14.	MANGANESE	8380	P
3.	ARSENIC	15	P	15.	MERCURY	0.99	CV
4.	BARIUM	664	P	16.	NICKEL	52	P
5.	BERYLLIUM	[2.6] ~~12.21~~	P	17.	POTASSIUM	[1650] ~~16304~~	P
6.	CADMIUM	17 ~~20~~	P	18.	SELENIUM	3.10	P
7.	CALCIUM	~~92300~~	P	19.	SILVER	79 ~~9.2~~	P
8.	CHROMIUM	303	P	20.	SODIUM	[904] ~~1602~~	P
9.	COBALT	[18.4] ~~18.21~~	P	21.	THALLIUM	6.20	P
10.	COPPER	34,100 ~~39400~~	P	22.	TIN	172 ~~172~~	P
11.	IRON	~~33500~~	P	23.	VANADIUM	36 ~~37~~	P
12.	LEAD	71,100 ~~71100~~	P	24.	ZINC	~~3070~~	P

Cyanide 15 AS Percent Solids (%) 81

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: ICP reported at additional 2X dilutions due to Lead Value beyond linear range.

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EPA Sample No.
MEU722

Date 9-28-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 7924
QC REPORT NO. 87223

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	12400	P I	13.	MAGNESIUM	13300	P I
2.	ANTIMONY	15U	P R	14.	MANGANESE	1640	P
3.	ARSENIC	25 S	F R	15.	MERCURY	0.56	CV
4.	BARIUM	644	P	16.	NICKEL	71	P
5.	BERYLLIUM	[1.7]	P	17.	POTASSIUM	[1550]	P
6.	CADMIUM	4.5	P	18.	SELENIUM	2.9U	P
7.	CALCIUM	63100	P	19.	SILVER	2.4U	P
8.	CHROMIUM	339	P	20.	SODIUM	641U	P
9.	COBALT	[7.1]	P	21.	THALLIUM	5.9U	P
10.	COPPER	283	P E	22.	TIN	24	P
11.	IRON	57300	P I	23.	VANADIUM	36	P
12.	LEAD	1070	P I	24.	ZINC	937	P E

Cyanide 1.9 1.6 AS Percent Solids (%) 85

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: As sample result determined by MSA.

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EPA Sample No.
MEU723

Date 9-28-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 7924
QC REPORT NO. 87223

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	12800	P I	13.	MAGNESIUM	23800	P I
2.	ANTIMONY	14U	P R	14.	MANGANESE	1710	P
3.	ARSENIC	11	P R	15.	MERCURY	0.67	CV
4.	BARIUM	260	P	16.	NICKEL	241	P
5.	BERYLLIUM	[1.6]	P	17.	POTASSIUM	[1920]	P
6.	CADMIUM	3.1	P	18.	SELENIUM	2.6U	P
7.	CALCIUM	71000	P	19.	SILVER	2.2U	P
8.	CHROMIUM	269	P	20.	SODIUM	612U	P
9.	COBALT	[11]	P	21.	THALLIUM	5.6U	P
10.	COPPER	679	P E	22.	TIN	[20]	P
11.	IRON	29100	P I	23.	VANADIUM	39	P
12.	LEAD	826	P I	24.	ZINC	637	P E

Cyanide 0.56U AS Percent Solids (%) 89

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

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EPA Sample No.
MEU724

Date 9-28-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALITICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 7924
QC REPORT NO. 87223

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	13000	P I	13.	MAGNESIUM	20100	P I
2.	ANTIMONY	16U	P R	14.	MANGANESE	2080	P
3.	ARSENIC	16 S	P R	15.	MERCURY	1.2	CV
4.	BARIUM	386	P	16.	NICKEL	439	P
5.	BERYLLIUM	[1.3]	P	17.	POTASSIUM	[1640]	P
6.	CADMIUM	7.3	P	18.	SELENIUM	3.1U	P
7.	CALCIUM	69900	P	19.	SILVER	2.5U	P
8.	CHROMIUM	846	P	20.	SODIUM	681U	P
9.	COBALT	[13]	P	21.	THALLIUM	6.2U	P
10.	COPPER	394	P E	22.	TIN	[18]	P
11.	IRON	25900	P I	23.	VANADIUM	46	P
12.	LEAD	1390	P I	24.	ZINC	1280	P E

Cyanide 0.96 AS Percent Solids (%) 80

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: As sample result determined by MSA.

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EPA Sample No.
MEU725

Date 9-28-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 7924
QC REPORT NO. 87223

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	10500	P I	13.	MAGNESIUM	20000	P I
2.	ANTIMONY	[25]	P R	14.	MANGANESE	1740	P
3.	ARSENIC	11 S	F R	15.	MERCURY	1.0	CV
4.	BARIUM	421	P	16.	NICKEL	349	P
5.	BERYLLIUM	[0.9]	P	17.	POTASSIUM	[1670]	P
6.	CADMIUM	8.2	P	18.	SELENIUM	3U	F
7.	CALCIUM	64000	P	19.	SILVER	2.4U	P
8.	CHROMIUM	492	P	20.	SODIUM	665U	P
9.	COBALT	[12]	P	21.	THALLIUM	6.1U	F
10.	COPPER	326	P E	22.	TIN	13U	P
11.	IRON	33900	P I	23.	VANADIUM	45	P
12.	LEAD	1370	P I	24.	ZINC	666	P E

Cyanide 2.9 AS Percent Solids (%) 82

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: As sample result determined by MSA.

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EPA Sample No.
MEU726

Date 9-28-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 7924
QC REPORT NO. 87223

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	10400	P	13.	MAGNESIUM	24300	P
2.	ANTIMONY	15U	P	14.	MANGANESE	1530	P
3.	ARSENIC	12	P	15.	MERCURY	1.2	CV
4.	BARIUM	296	P	16.	NICKEL	160	P
5.	BERYLLIUM	[0.72]	P	17.	POTASSIUM	[2040]	P
6.	CADMIUM	4.3	P	18.	SELENIUM	3U	P
7.	CALCIUM	55100	P	19.	SILVER	[2.4]	P
8.	CHROMIUM	603	P	20.	SODIUM	657U	P
9.	COBALT	[10]	P	21.	THALLIUM	6U	P
10.	COPPER	206	P	22.	TIN	[19]	P
11.	IRON	33100	P	23.	VANADIUM	46	P
12.	LEAD	1280	P	24.	ZINC	719	P

Cyanide 2.5 AS Percent Solids (%) 83

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

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EPA Sample No.
MEU727

Date 9-28-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 7924
QC REPORT NO. 87223

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	6070	P X	13.	MAGNESIUM	20200	P X
2.	ANTIMONY	15U	P R	14.	MANGANESE	2330	P
3.	ARSENIC	7.6	P R	15.	MERCURY	0.49	CV
4.	BARIUM	164	P	16.	NICKEL	40	P
5.	BERYLLIUM	~~1.1~~ [1.0]	P	17.	POTASSIUM	[921]	P
6.	CADMIUM	2.3U	P	18.	SELENIUM	2.9U	P
7.	CALCIUM	69000	P	19.	SILVER	2.3U	P
8.	CHROMIUM	169	P	20.	SODIUM	634U	P
9.	COBALT	[7.4]	P	21.	THALLIUM	5.8U	P
10.	COPPER	180	P	22.	TIN	[115]	P
11.	IRON	25000	P X	23.	VANADIUM	43	P
12.	LEAD	402	P X	24.	ZINC	375	P

Cyanide 1.4 AS Percent Solids (%) 66

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EPA Sample No.
MEU728

Date 9-28-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 7924
QC REPORT NO. 87223

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	11700	P	13.	MAGNESIUM	20000	P
2.	ANTIMONY	14U	P R	14.	MANGANESE	1770	P
3.	ARSENIC	11	P R	15.	MERCURY	0.57	CV
4.	BARIUM	321	P	16.	NICKEL	176	P
5.	BERYLLIUM	[0.68]	P	17.	POTASSIUM	[2340]	P
6.	CADMIUM	3.4	P	18.	SELENIUM	2.8U	P
7.	CALCIUM	59700	P	19.	SILVER	2.3U	P
8.	CHROMIUM	431	P	20.	SODIUM	[825]	P
9.	COBALT	[15]	P	21.	THALLIUM	5.7U	P
10.	COPPER	489	P	22.	TIN	[22]	P
11.	IRON	45100	P	23.	VANADIUM	46	P
12.	LEAD	1100	P	24.	ZINC	1800	P

Cyanide 3.7 AS Percent Solids (%) 88

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

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EPA Sample No.
MEU729

Date 9-28-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 7924
QC REPORT NO. 87223

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	9140	P X	13.	MAGNESIUM	16700	P X
2.	ANTIMONY	15U	P R	14.	MANGANESE	820	P
3.	ARSENIC	17	P R	15.	MERCURY	1.1	CV
4.	BARIUM	450	P	16.	NICKEL	107	P
5.	BERYLLIUM	[0.77]	P	17.	POTASSIUM	[1690]	P
6.	CADMIUM	40	P	18.	SELENIUM	3.1U	P
7.	CALCIUM	50400	P	19.	SILVER	2.5U	P
8.	CHROMIUM	904	P	20.	SODIUM	[737]	P
9.	COBALT	[22]	P	21.	THALLIUM	6.2U	P
10.	COPPER	450	P E	22.	TIN	[22]	P
11.	IRON	24900	P X	23.	VANADIUM	[26]	P
12.	LEAD	3000	P X	24.	ZINC	1090	P E

Cyanide 5.2 AS Percent Solids (%) 81

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

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EPA Sample No.
MEU730

Date 9-28-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 7924
QC REPORT NO. 87223

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	13000	P ~~X~~	13.	MAGNESIUM	13900	P ~~X~~
2.	ANTIMONY	14U	P R	14.	MANGANESE	2600	P
3.	ARSENIC	14	P R	15.	MERCURY	0.11U	CV
4.	BARIUM	362	P	16.	NICKEL	63	P
5.	BERYLLIUM	[1.6]	P	17.	POTASSIUM	[1590]	P
6.	CADMIUM	4.4	P	18.	SELENIUM	2.6U	P
7.	CALCIUM	60900	P	19.	SILVER	2.3U	P
8.	CHROMIUM	372	P	20.	SODIUM	619U	P
9.	COBALT	[6.9]	P	21.	THALLIUM	5.7U	P
10.	COPPER	302	P ~~E~~	22.	TIN	[21]	P
11.	IRON	32900	P ~~X~~	23.	VANADIUM	31	P
12.	LEAD	976	P ~~X~~	24.	ZINC	602	P ~~E~~

Cyanide 3.9 AS Percent Solids (%) 68

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

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4/3

Form III

Q.C. Report No. 87223

000017

BLANKS

LAB NAME ROCKY MOUNTAIN ANALYTICAL CASE NO. 7924

DATE 9-26-87 UNITS ug/L

Matrix Soil

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. ALUMINUM		15U					
2. ANTIMONY		25U					
3. ARSENIC							
4. BARIUM		3U					
5. BERYLLIUM		1U					
6. CADMIUM		4U					
7. CALCIUM		179U					
8. CHROMIUM		4U					
9. COBALT		9U					
10. COPPER		[7.1]					
11. IRON		24U					
12. LEAD		20U					
13. MAGNESIUM		153U					
14. MANGANESE		4U					
15. MERCURY							
16. NICKEL		8U					
17. POTASSIUM		175U					
18. SELENIUM							
19. SILVER		4U					
20. SODIUM		1090U					
21. THALLIUM							
22. TIN		22U					
23. VANADIUM		7U					
24. ZINC		3U					
Other:							
Cyanide							

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Form III

Q.C. Report No. 87223

000018

BLANKS

LAB NAME ROCKY MOUNTAIN ANALYTICAL CASE NO. 7924

DATE 9-26-87 UNITS ug/L

Matrix SOIL

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. ALUMINUM	[32]	15U	15U			15U	
2. ANTIMONY	25U	25U	25U			25U	
3. ARSENIC	10u	10u	10u	10u		10u	
4. BARIUM	3U	3U	3U			3U	
5. BERYLLIUM	1U	1U	1U			1U	
6. CADMIUM	4U	4U	4U			4U	
7. CALCIUM	179U	179U	179U			179U	
8. CHROMIUM	4U	4U	4U			[4.5]	
9. COBALT	9U	9U	9U			9U	
10. COPPER	6U	[13]	[10]			[6.3]	
11. IRON	[43]	24U	24U			24U	
12. LEAD	20U	20U	20U			20U	
13. MAGNESIUM	153U	153U	153U			153U	
14. MANGANESE	4U	4U	4U			4U	
15. MERCURY	0.2u	0.2u	0.2u			0.2u	
16. NICKEL	8U	8U	8U			8U	
17. POTASSIUM	175U	175U	175U			175U	
18. SELENIUM	5u	5u	5u	5u	5u	5u	
19. SILVER	4U	4U	4U			4U	
20. SODIUM	1090U	1090U	1090U			1090U	
21. THALLIUM	10u	10u	10u	10u		10u	
22. TIN	22U	22U	22U			22U	
23. VANADIUM	7U	7U	7U			7U	
24. ZINC	3U	[3.6]	[4.2]			[4.7]	
Other:							
Cyanide	10u	10u	10u	10u	10u	10u	

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Form III

Q.C. Report No. 87223

BLANKS

LAB NAME ROCKY MOUNTAIN ANALYTICAL CASE NO. 7924

DATE 9-26-87 UNITS ug/L

Matrix SOIL

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. ALUMINUM							
2. ANTIMONY							
3. ARSENIC	10u	10u	10u				
4. BARIUM							
5. BERYLLIUM							
6. CADMIUM							
7. CALCIUM							
8. CHROMIUM							
9. COBALT							
10. COPPER							
11. IRON							
12. LEAD							
13. MAGNESIUM							
14. MANGANESE							
15. MERCURY							
16. NICKEL							
17. POTASSIUM							
18. SELENIUM							
19. SILVER							
20. SODIUM							
21. THALLIUM							
22. TIN							
23. VANADIUM							
24. ZINC							
Other:							
Cyanide							

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Form V

Q.C. Report No. 87223

SPIKE SAMPLE RECOVERY

LAB NAME ROCKY MOUNTAIN ANALYTICAL

DATE 9-26-87

CASE NO. 7924
EPA Sample No. ME3647
Lab Sample ID No. -
Units mg/kg

MATRIX SOIL

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R[1]
Metals:					
1. ALUMINUM	75-125	8540	9460	NR	
2. ANTIMONY	75-125	97	120	250	39 R
3. ARSENIC	75-125	22	8.5	20	68 R
4. BARIUM	75-125	1150	154	1000	100
5. BERYLLIUM	75-125	26	(0.89)	25	100
6. CADMIUM	75-125	28	4.7	25	93
7. CALCIUM	75-125	59000	49600	NR	
8. CHROMIUM	75-125	279	185	100	94
9. COBALT	75-125	250	(7.2)	250	97
10. COPPER	75-125	318	185	125	106
11. IRON	75-125	18400	18100	NR	
12. LEAD	75-125	683	421	250	105
13. MAGNESIUM	75-125	18000	15800	NR	
14. MANGANESE	75-125	1300	1020	250	112
15. MERCURY	75-125	0.93	0.52	0.5	82
16. NICKEL	75-125	326	84	250	97
17. POTASSIUM	75-125	(1190)	(1210)	NR	
18. SELENIUM	75-125	5.4 S	2.5U	5	106
19. SILVER	75-125	27	2U	25	106
20. SODIUM	75-125	(600)	(550)	NR	
21. THALLIUM	75-125	19	5U	25	76
22. TIN	75-125	263	(16)	250	99
23. VANADIUM	75-125	261	29	250	101
24. ZINC	75-125	771	502	250	106
Other:					
Cyanide	75-125	4.4	0.67	5.0	75

[1] %R = [(SSR - SR)/SA] x 100

"R"- out of control

Comments: Se spiked sample result determined by MSA.

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Form VI

Q.C. Report No. 87223

DUPLICATES

LAB NAME ROCKY MOUNTAIN ANALYTICAL

DATE 9-26-87

CASE NO. 7924
EPA Sample No. ME3647
Lab Sample ID No. -
Units mg/kg

Matrix SOIL

Compound	Control Limit*	Sample(S)	Duplicate(D)	RPD²	
Metals:					
1. ALUMINUM		9400	7010	22	I
2. ANTIMONY		12U	12U	NC	
3. ARSENIC		8.5	9.9 S	15	
4. BARIUM		154	156	1.3	
5. BERYLLIUM		[0.89]	[0.76]	NC	
6. CADMIUM		4.7	[2.3]	NC	
7. CALCIUM		49600	49200	0.81	
8. CHROMIUM		165	161	14	
9. COBALT		[7.2]	[5.5]	NC	
10. COPPER		165	203	9.3	
11. IRON		18100	22400	21	I
12. LEAD		421	520	21	I
13. MAGNESIUM		15800	12300	25	I
14. MANGANESE		1020	1110	8.5	
15. MERCURY		0.52	0.45	14	
16. NICKEL		64	68	4.7	
17. POTASSIUM	-	[1210]	[1020]	NC	
18. SELENIUM		2.5U	2.5U	NC	
19. SILVER		2U	2U	NC	
20. SODIUM		[550]	[553]	NC	
21. THALLIUM		5U	5U	NC	
22. TIN		[16]	24	NC	
23. VANADIUM		29	[23]	NC	
24. ZINC		502	544	8	
Other:					
% solids		83	83	Ø	
Cyanide		0.67	0.5U	NC	

I Out of Control
* To be added at a later date. ² RPD = [|S-D|/((S+D)/2)] x 100
NC - Non calculable RPD due to value(s) less than CRDL

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Form VII

000023

Q.C. Report No. 87223
INSTRUMENT DETECTION LIMITS AND
LABORATORY CONTROL SAMPLE

LAB NAME ROCKY MOUNTAIN ANALYTICAL
DATE 9-26-87

CASE NO 7924
UNITS ug/L

Compound	Required Detection Limits (CRDL)-ug/l	Instrument Detection Limits (IDL)-ug/l ICP/AA	Instrument Detection Limits (IDL)-ug/l Furnace	Lab Control Sample True	Lab Control Sample Found	Lab Control Sample %R
Metals:						
1. ALUMINUM	200	15		1980	1940	98
2. ANTIMONY	60	25		1010	1030	102
3. ARSENIC	10	31	2	49	46 S	94
4. BARIUM	200	3		1980	1900	96
5. BERYLLIUM	5	1		481	474	99
6. CADMIUM	5	4		489	462	94
7. CALCIUM	5000	179		49800	49500	99
8. CHROMIUM	10	4		500	487	96
9. COBALT	50	9		474	479	101
10. COPPER	25	6		542	632	117
11. IRON	100	24		1990	2030	102
12. LEAD	5	20	1	4510	4310	96
13. MAGNESIUM	5000	153		25000	23900	95
14. MANGANESE	15	4		513	510	99
15. MERCURY	0.2		0.2CV	1.0	1.0	100
16. NICKEL	40	8		496	480	97
17. POTASSIUM	5000	175		50200	47500	95
18. SELENIUM	5		1	98	94	96
19. SILVER	10	4		509	470	92
20. SODIUM	5000	1090		50700	49400	98
21. THALLIUM	10		1	97	88	91
22. TIN	40	22		2000	2130	106
23. VANADIUM	50	7		511	500	98
24. ZINC	20	3		3100	2820	91
Other:						
Cyanide	10		10AS	58	60	103

CV - Cold Vapor
AS - Automated Spectrophotometric

As LCS value determined by MSA.

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000001

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison St. - Alexandria, VA 22314
703/557-2490 FTS: 8-557-2490

Date 9-24-87

COVER PAGE
INORGANIC ANALYSIS DATA PACKAGE

Lab Name ROCKY MOUNTAIN ANALYTICAL
SOW No. 784

Case No. 7924
QC Report No. 87222

Sample Numbers

EPA No.	Lab ID No.	EPA No.	Lab ID No.
MEL039D			
MEL039			
MEL039S			
[MEL999]			

RECEIVED
OCT 05 1987
US EPA ... LAB.

Comments: 1 MEDIUM SOILS FOR TOTAL METALS AND CYANIDE ANALYSIS
SERIAL DILUTION FOR SAMPLE MEL039 IS IDENTIFIED AS [MEL999]

ICP Interelement and background corrections applied? Yes X No ___.
If yes, corrections applied before X or after ___ generation of raw data.

Footnotes:

NR - not required by contract at this time
Form I:
Value - If the result is a value greater than or equal to the instrument detection limit but less than the contract required detection limit, report the value in brackets (i.e., [10]). Indicate the method used with P (for ICP/Flame AA) or F (for furnace).
U - Indicates element was analyzed for but not detected. Report with the detection limit value (e.g., 10U).
E - Indicates a value estimated or not reported due to the presence of interference. Explanatory note included on cover page.
S - Indicates value determined by Method of Standard Addition.
R - Indicates spike sample recovery is not within control limits.
I - Indicates duplicate analysis is not within control limits.
+ - Indicates the correlation coefficient for method of standard addition is Less than 0.995
CV - Indicates Cold Vapor
AS - Indicates Automated Spectrophotometric

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NARRATIVE

RMA QC#: 87222

CASE #: 7924

COMMENTS: There are two sets of Cyanide results in the data package. The matrix spike for the first analysis only had 16% recovery. The sample and matrix spike were reprepped and reanalyzed to confirm that the low recovery was due to matrix interferences. The recovery for the reprep was only 15%. The results for the original analysis are reported. The reprep results are included in the data package.

LAB MANAGER: [illegible]

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Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison St. - Alexandria, VA 22314
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MEL039

Date 9-24-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALITICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 7924
QC REPORT NO. 87222

Elements Identified and Measured

Concentration: Low ~~X~~ LR Medium X
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	5280	P	13.	MAGNESIUM	22400	P
2.	ANTIMONY	20U	P R	14.	MANGANESE	628	P IR
3.	ARSENIC	7.8U	F R	15.	MERCURY	0.16U	CV
4.	BARIUM	[49]	P	16.	NICKEL	33	P
5.	BERYLLIUM	0.78U	P	17.	POTASSIUM	[1320]	P
6.	CADMIUM	[3.8]	P	18.	SELENIUM	3.9U	F
7.	CALCIUM	52800	P	19.	SILVER	3.1U	P
8.	CHROMIUM	47	P I	20.	SODIUM	652U	P
9.	COBALT	[7.8]	P	21.	THALLIUM	7.8U	F
10.	COPPER	46	P	22.	TIN	17U	P
11.	IRON	18400	P	23.	VANADIUM	[15]	P
12.	LEAD	59	P	24.	ZINC	110	P

Cyanide 0.78U AS R Percent Solids (%) 64

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

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Form III

Q.C. Report No. 87222

000006

BLANKS

LAB NAME ROCKY MOUNTAIN ANALYTICAL
DATE 9-24-87
CASE NO. 7924
UNITS ug/L
Matrix SOIL

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. ALUMINUM		15u					
2. ANTIMONY		25u					
3. ARSENIC							
4. BARIUM		3u					
5. BERYLLIUM		1u					
6. CADMIUM		4u					
7. CALCIUM		179u					
8. CHROMIUM		4u					
9. COBALT		9u					
10. COPPER		6u					
11. IRON		24u					
12. LEAD		20u					
13. MAGNESIUM		153u					
14. MANGANESE		4u					
15. MERCURY							
16. NICKEL		8u					
17. POTASSIUM		175u					
18. SELENIUM							
19. SILVER		4u					
20. SODIUM		1090u					
21. THALLIUM							
22. TIN		22u					
23. VANADIUM		7u					
24. ZINC		3u					
Other:							
Cyanide							

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Form III

Q.C. Report No. 87222

000007

BLANKS

LAB NAME ROCKY MOUNTAIN ANALYTICAL
DATE 9-24-87
CASE NO. 7924
UNITS ug/L
Matrix SOIL

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. ALUMINUM	15U	15U				15U	
2. ANTIMONY	25U	25U				25U	
3. ARSENIC	10u	10u	10u			10u	
4. BARIUM	3U	3U				3U	
5. BERYLLIUM	1U	1U				1U	
6. CADMIUM	4U	4U				4U	
7. CALCIUM	179U	179U				179U	
8. CHROMIUM	4U	4U				4U	
9. COBALT	9U	9U				9U	
10. COPPER	6U	6U				6U	
11. IRON	24U	24U				24U	
12. LEAD	20U	20U				20U	
13. MAGNESIUM	153U	153U				153U	
14. MANGANESE	[4.2]	4U				4U	
15. MERCURY	0.2u	0.2u				0.2u	
16. NICKEL	8U	8U				8U	
17. POTASSIUM	175U	175U				175U	
18. SELENIUM	5u	5u				5u	
19. SILVER	4U	4U				4U	
20. SODIUM	1090U	1090U				1090U	
21. THALLIUM	10u	10u	10u			10u	
22. TIN	22U	22U				22U	
23. VANADIUM	7U	7U				7U	
24. ZINC	3U	3U				[7.6]	
Other:							
Cyanide	10u	10u	10u			10u	

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Form V

Q.C. Report No. 87222

SPIKE SAMPLE RECOVERY

LAB NAME ROCKY MOUNTAIN ANALYTICAL

DATE 9-24-87

CASE NO. 7924
EPA Sample No. MEL039
Lab Sample ID No. -
Units mg/kg

MATRIX SOIL

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R*	
Metals:						
1. ALUMINUM	75-125	3880	3380	NR		
2. ANTIMONY	75-125	142	12U	250	57	R
3. ARSENIC	75-125	30 S	5U	20	150	R
4. BARIUM	75-125	974	[31]	1000	94	
5. BERYLLIUM	75-125	24	0.5U	25	96	
6. CADMIUM	75-125	25	[2.4]	25	90	
7. CALCIUM	75-125	39900	33800	NR		
8. CHROMIUM	75-125	117	30	100	87	
9. COBALT	75-125	244	[5]	250	96	
10. COPPER	75-125	152	30	125	96	
11. IRON	75-125	16300	11800	NR		
12. LEAD	75-125	283	38	250	96	
13. MAGNESIUM	75-125	16700	14400	NR		
14. MANGANESE	75-125	538	402	250	54	R
15. MERCURY	75-125	0.52	0.1U	0.5	104	
16. NICKEL	75-125	257	21	250	94	
17. POTASSIUM	75-125	[974]	[846]	NR		
18. SELENIUM	75-125	4	2.5U	5	80	
19. SILVER	75-125	26	2U	25	104	
20. SODIUM	75-125	[556]	545U	NR		
21. THALLIUM	75-125	24 S	5U	25	96	
22. TIN	75-125	224	11U	250	90	
23. VANADIUM	75-125	259	[9.8]	250	100	
24. ZINC	75-125	317	71	250	96	
Other:						
Cyanide	75-125	0.82	0.5U	5	16	R

* %R = [(SSR - SR)/SA] x 100
"R"- out of control

Comments: As and Tl spiked sample results determined by MSA.

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Form VI

Q.C. Report No. 87222

DUPLICATES

LAB NAME ROCKY MOUNTAIN ANALYTICAL

DATE 9-24-87

CASE NO. 7924
EPA Sample No. MEL039
Lab Sample ID No. -
Units mg/kg

Matrix SOIL

Compound	Control Limit*	Sample(S)	Duplicate(D)	RPD*
Metals:				
1. ALUMINUM		3380	3080	9.3
2. ANTIMONY		12U	12U	NC
3. ARSENIC		5U	[5]	NC
4. BARIUM		[31]	[29]	NC
5. BERYLLIUM		0.5U	0.5U	NC
6. CADMIUM		[2.4]	2U	NC
7. CALCIUM		33800	32000	5.5
8. CHROMIUM		30	21	38 37 I
9. COBALT		[5]	[5.1]	NC
10. COPPER		30	24	22
11. IRON		11800	11000	7
12. LEAD		38	41	7.6
13. MAGNESIUM		14400	13700	5
14. MANGANESE		402	238	51 I
15. MERCURY		0.1U	0.1U	NC
16. NICKEL		21	[18]	NC
17. POTASSIUM		[846]	[801]	NC
18. SELENIUM		2.5U	2.5U	NC
19. SILVER		2U	2U	NC
20. SODIUM		545U	545U	NC
21. THALLIUM		5U	5U	NC
22. TIN		11U	11U	NC
23. VANADIUM		[9.8]	[8]	NC
24. ZINC		71	66	7.3
Other:				
% Solids		64	63	1.6
Cyanide		0.5U	0.5U	NC

I Out of Control
* To be added at a later date. * RPD = [|S-D|/((S+D)/2)] x 100
NC - Non calculable RPD due to value(s) less than CRDL

The following elements reported unflagged due to sample and/or duplicate concentration less than 5 times the CRDL and +/- CRDL:
COPPER

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Form VII

000011

Q.C. Report No. 87222
INSTRUMENT DETECTION LIMITS AND
LABORATORY CONTROL SAMPLE

LAB NAME ROCKY MOUNTAIN ANALYTICAL CASE NO 7924
DATE 9-24-87 UNITS ug/L

Compound	Required Detection Limits (CRDL)-ug/l	Instrument Detection Limits (IDL)-ug/l ICP/AA	Furnace	Lab Control Sample True	Found	%R
Metals:						
1. ALUMINUM	200	15		1980	2100	106
2. ANTIMONY	60	25		1010	979	97
3. ARSENIC	10	31	2	49	44	90
4. BARIUM	200	3		1980	1930	97
5. BERYLLIUM	5	1		481	512	106
6. CADMIUM	5	4		489	473	97
7. CALCIUM	5000	179		49800	51800	104
8. CHROMIUM	10	4		506	506	100
9. COBALT	50	9		474	492	104
10. COPPER	25	6		542	569	105
11. IRON	100	24		1990	2100	105
12. LEAD	5	20	1	4510	4240	94
13. MAGNESIUM	5000	153		25000	25400	102
14. MANGANESE	15	4		513	512	100
15. MERCURY	0.2		0.2CV	1.0	1.0	100
16. NICKEL	40	8		496	486	98
17. POTASSIUM	5000	175		50200	52800	105
18. SELENIUM	5		1	98	100	102
19. SILVER	10	4		509	444	87
20. SODIUM	5000	1090		50700	53300	105
21. THALLIUM	10		1	97	92	95
22. TIN	40	22		2000	1910	96
23. VANADIUM	50	7		511	532	104
24. ZINC	20	3		3100	2830	91
Other:						
Cyanide	10		10AS	58	59 ✓	102

CV - Cold Vapor
AS - Automated Spectrophotometric

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CRL Receipt Date 9-15-87 FIT Receipt Date 12-1-87 Review Completed 12-3-87

TO: J. CARMAN

FROM: Jim Mertes

SUBJECT: U.S. SCRAP

PAN: IL 010255 CASE # 7795

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
# 8	Low Soil	#	Low Soil
	Low Water		Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status _____ Completed!!

X Incomplete, awaiting: low soil inorganics

FIT Data Review Findings:

Unqualified hits are circled, see DATA worksheets.
Any Questions, see me.

Check Data Sheets for Transcription Errors

X Compounds were detected in sample(s); see enclosed sheet.

Book No. 6 Page No. 230 Date Sampled 8-5-87

26U:001

I'm. changed to above PAN
week ending 12-5-87
Q
J.M.

U. S. SCRAP
Case 7795

COMPOUND	SAMPLE	DET. LIMIT	µg/l EN083	EN082	EN08	EN0	E		EN085	EN084
chloromethane										
bromomethane										
vinyl chloride										
chloroethane										
methylene chloride				14J	20UJ	6UJ	11UJ	9UJ	11UJ	56UJ
acetone							114	34	24	
carbon disulfide										
1,1-dichloroethene										
1,1-dichloroethane										
trans-1,2,-dichloroethene										
chloroform							1J			
1,2-dichloroethane										
2-butanone										
1,1,1-trichloroethane										
carbon tetrachloride										
vinyl acetate										
bromodichloromethane										
1,1,2,2-tetrachloroethane										
1,2-dichloropropane										
trans-1,3-dichloropropene										
trichloroethene										
dibromochloromethane										
1,1,2-trichloroethane										
benzene							2J			
cis-1,3-dichloropropene										
2-chloroethylvinylether										
bromoform										
2-hexanone										
4-methyl-2-pentanone							46			
tetrachloroethene										
toluene										
chlorobenzene										
ethylbenzene										
styrene										
total xylenes										
N-nitrosodimethylamine										
phenol										
aniline										
bis(2-chloroethyl)ether										
2-chlorophenol										
1,3-dichlorobenzene										
1,4-dichlorobenzene										
benzyl alcohol										
1,2-dichlorobenzene										
2-methylphenol										
bis(2-chloroisopropyl)ether										
4-methylphenol										
N-nitroso-di-n-propylamine										
hexachloroethane										
nitrobenzene										
isophrone 370				700	140J	3100	510			
2-nitrophenol										
2,4-dimethylphenol										
benzoic acid										
bis(2-chloroethoxy)methane										
2,4-dichlorophenol										
1,2,4-trichlorobenzene					87J		97J			
nepthalene 370				420	270J	1000	470			87J
4-chloroaniline										
hexachlorobutadiene										
4-chloro-3-methylphenol										
2-methylnapthalene 350				240J	170J	880	270J			70J
hexachlorocyclopentadiene										
2,4,6-trichlorophenol										
2,4,5-trichlorophenol										
2-chloronapthalene										

V O A

S

U.S. SCRAP
Case 7795

COMPOUND	SAMPLE	DET. LIMIT	EN083	EN082	EN081	EN080	EN018	ET434	EN085	EN084
			Pb							
dimethyl phthalate						100 J				
acenapthylene				170 J	480	610	840			140 J
3-nitroaniline										
acenaphthene			430 J			160 J	170 J			
2,4-dinitrophenol										
4-nitrophenol										
dibenzofuran						220 J	260 J			
2,4-dinitrotoluene										
2,6-dinitrotoluene										
diethylphthalate										
4-chlorophenyl-phenylether										
fluorene			510 J		140 J	220 J	460			82 J
4-nitroaniline										
4,6-dinitro-2-methylphenol										
N-nitrosodiphenylamine			8200	230 UJ	1200 B	1500 B	1800 B			
4-bromophenyl-phenylether										
hexachlorobenzene										
pentachlorophenol										
phenanthrene 370			6800	540	1600	2600	2800	270 J	150 J	710
anthracene			1500 J	150 J	450	690	770	55 J	48 J	
di-n-butylphthalate				450 B	370 UJ					
fluoranthene			9200	1100	3100	3500	3500	540	340 J	1500
benzidine										
pyrene			9300	620	1600	2600	2100	290 J	180 J	840
butylbenzylphthalate				190 J						
3,3'-dichlorobenzidine										
benzo(a)anthracene			6000	520		1400	1600	210 J	93 J	410
bis(2-ethylhexyl)phthalate			590 J	840	660	2400		240 J	270 J	1200
chrysene			7000	620	1200	2000	1700	250 J	140 J	1000
di-n-octylphthalate				56 J		1000		35 J		
benzo(b&k)fluoranthene			8600	1200	3000	3400	3100	410	270 J	1400
benzo(a)pyrene			5100	420	1300	2200	1800		96 J	420
indeno(1,2,3-cd)pyrene			3000 J	394		1019	1000			
dibenzo(a,h)anthracene			1700 J				380			
benzo(g,h,i)perylene			3100 J			910	780	67 J		
alpha-BHC										
beta-BHC										
delta-BHC										
gamma-BHC(lindane)										
heptachlor										
aldrin										
heptachlor epoxide										
endosulfan I										
dieldrin										
4,4'-DDE			220							
endrin										
endosulfan II										
4,4'-DDD			2600	110	77	140	500	50		
endrin aldehyde										
endosulfan sulfate										
4,4'-DDT			800							
methoxychlor										
endrin ketone										
chlordane			2200	1800	640	8100	18000			
toxephene										
Aroclor-1016										
Aroclor-1221										
Aroclor-1232										
Aroclor-1242										
Aroclor-1248										
Aroclor-1254			3000	770	220	5200	22000			
Aroclor-1260			1600	1000	880	4300	17000		15000	1700

S V

P E S T

P C B

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Received 12-1-87
47 pages

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 11/27/87

SUBJECT: Review of Region V CLP Data Received for Review on 9-15-87

FROM: Curtis Ross, Director (5SCRL) Patrick J. Churella for
Central Regional Laboratory

TO: Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME: U. S. SCRAP SMO case No. 7795

EPA Data Set No. SF 4259 No. of Samples: 8 D.U./Activity Numbers Y905 / C72100

CRL No. 87FC14531-S38

SMO Traffic No. EN018, EN080-085, ET434

CLP Laboratory: ENCOTEC Hrs. Required for Review: 6

Following are our findings:

This review covers 8 soil sample analyzed for full organics.
Qualifiers and calibration outliers are noted on the following pages of the review narrative.

Nidia Feliciano
11/24/87

( ) Data are acceptable for use.
( ) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Duane Geuder, Quality Assurance Officer, EPA Support Services
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

EPA FORM 1320-6 (Rev. 5/87)

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PAGE ___ OF ___

DATA QUALIFIERS

Contractor: Encotec

Case 7795

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

Sample holding time:
All samples meet the holding time.

GC/MS Tuning and GC instrument performance:
All ions meet ions abundance criteria. All samples run within 12 hours.
All the linearity check and calibration for the GC is acceptable.

Calibration:
Acceptable. Only one compound, Acetone, shows a %RSD < 30 for the initial calibration. Positives results should be considered estimated (J) See calibration outliers forms.

Blank:
VOA fraction slightly contaminated with methylene chloride, positives results on sample were flagged undetected (UJ), concentration were < 10 times blank levels. BNA fraction some non common contaminat were noted, N-Nitroso-Diphenylamine, Di-N-Butil Phthalate and 1,1,2,2-Tetrachloroethane, some others unknown. In some cases, positives hits were flagged as undetected (UJ) because concentration were < 5 times blank level.

Reviewed by: Milia Feliciano

Phone: 353-0651

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PAGE ___ OF ___

DATA QUALIFIERS

Contractor: Cuesta

Case 7795

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

Surrogate recoveries:
Acceptable. For sample EN083 for BNA and Pest/PCB's surrogates were diluted out due to high concentrations of 'TCL' compounds.

Matrix Spike/MSD:
Some matrix interferences were found for the BNA fraction. Detection limits was raise to achieve the matrix spike recoveries.

Reviewed by: Julia Feliciano

Phone: 353-0651

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE/SAS # 7795 CONTRACTOR Oncotec

Instrument # 002	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	8/13/87 9:21														
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane															
Bromomethane															
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone		49.0	J												
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone															
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate															
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform															
4-Methyl-2-Pentanone															
2-Hexanone															
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

Method Blank				
ENO18				
ENO82				
ENO85				
ET434				
ET434 MS				
ET434 MSD				

Reviewer's Initials/Date: MT 11/23/87

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

[redacted]

Case No. EPA# 7795 Contract Laboratory Encotec Contract No. 68-01-7275

Low X Medium

	VOLATILE			SEMI-VOLATILE								PESTICIDE
SMO TRAFFIC NO.	TOLUENE-D8 (81-117)	BFB (74-121)	1,2 DICHLORO-ETHANE-D4 (76-121)	NITRO-BENZENE-D5 (23-120)	2-FLUORO-BIPHENYL (30-115)	TERPHENYL-D14 (18-137)			PHENOL-D5 (24-113)	2-FLUORO-PHENOL (25-121)	2,4,6 TRIBROMO PHENOL (19-122)	DIBUTYL-CHLORENDATE (20-150)
ETH. BLK	101	99	103	67	73	83			85	68	66	99
N018	116	92	92	58	64	58			73	60	107	165 *
N080	106	93	75	69	67	60			27	71	94	286 *
N081	106	91	105	63	66	53			84	68	73	100
N082	107	97	112	54	64	46			60	54	83	138
N083	110	89	87	DL	DL	DL			DL	DL	DL	114
EN084	113	87	92	54	53	41			57	49	60	134 •
EN085	102	95	84	58	56	44			52	51	54	117 •
T434	100	92	85	57	55	44			56	51	55	107
T434(MS)	101	89	80	60	69	51			94	69	55	115
T434(MSD)	100	91	86	64	76	54			94	72	65	112

VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

ADVISORY LIMITS ONLY

Volatiles: 0 out of 33 ; outside of QC limits

Semi-Volatiles: 0 out of 66 ; outside of QC limits

Pesticides: 2 out of 11 ; outside of QC limits

7/86

Comments: Sample EN083 WAS DILUTED 1:10 DUE TO HIGH CONCENTRATIONS OF HSL COMPOUNDS.

• CALCULATED FROM CAPILLARY COLUMN BECAUSE OF INTERERENCE ON PACKED COLUMN

FORM II

00029

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SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 7795 Contractor BICOTEC Contract No.

Low Level X Medium Level

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS RPD	QC LIMITS RECOVERY
VOA SMO SAMPLE NO. ET434	1,1-Dichloroethene	50	5u	51	102	57	114	11	22	69-172
	Trichloroethene	50	5u	43	86	45	90	5	24	62-137
	Chlorobenzene	50	5u	49	98	52	104	6	21	60-133
	Toluene	50	5u	49	98	53	106	8	21	59-139
	Benzene	50	5u	50	100	54	108	8	21	66-142
B/N SMO SAMPLE NO. ET434	1,2,4-Trichlorobenzene	3330	330u	2160	65	2630	79	19	20	38-107
	Acenaphthene	3330	330u	1800	54	2030	61	12	19	31-137
	2,4 Dinitrotoluene	3330	330u	2030	61	2260	68	11	47	28-89
	Pyrene	3330	270J	1964	51	2164	57	11	30	35-142
	N Nitrosodi-n-Propylamine	3330	330u	2160	65	2200	66	2	30	41-126
	1,4-Dichlorobenzene	3330	330u	2160	65	2430	73	12	27	28-104
ACID SMO SAMPLE NO. ET434	Pentachlorophenol	6660	1670u	1831	28	2130	32	13	47	17-109
	Phenol	6660	330u	4430	67	4430	67	0	35	26-90
	2-Chlorophenol	6660	330u	4860	73	5000	75	3	50	25-102
	4-Chloro-3 Methylphenol	6660	330u	4360	66	5000	75	13	33	26-103
	4 Nitrophenol	6660	1670u	4430	67	3860	58	15	50	11-114
PEST SMO SAMPLE NO. ET434	Lindane	28.5	8.0u	31.1	109	30.1	106	3	50	46-127
	Heptachlor	28.5	8.0u	31.1	111	30.3	106	4	31	35-130
	Aldrin	28.5	8.0u	29.6	104	28.0	98	6	43	34-132
	Dieldrin	71.2	16u	82.5	116	82.7	116	0.2	30	31-134
	Endrin	71.2	16u	80.8	113	85.7	120	6	45	42-139
	4,4'-DDT	71.2	80u	100	142*	114	160*	12	50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOA: 0 out of 5; outside QC limits
B/N 0 out of 6; outside QC limits
ACID 0 out of 5; outside QC limits
PEST 0 out of 6; outside QC limits

RECOVERY: VOA: 0 out of 10; outside QC limits
B/N 0 out of 12; outside QC limits
ACID 0 out of 10; outside QC limits
PEST 2 out of 12; outside QC limits

Comments: MATRIX INTERFERENCES PROMPTED RAISING DETECTION LIMITS.

FORM III

7/85

00030

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METHOD BLANK SUMMARY

Case No. TP5 Region V Contractor ENCOTEC Contract No. 68-01-7275

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (HSL, TIC OR UNKNOWN)	CONC.	UNITS	CRQL
VOABLK0813	8/13/87	VOA	SOIL	L	002	75-09-2	METHYLENE CHLORIDE	9 (B)	µg/kg	5
LSB08148	9/03/87	BNA	SOIL	L	003	86-30-6	N-NITROSO-DIPHENYLAMINE	57 (B)(J)	µg/kg	330
LSB0813B	9/03/87	BNA	SOIL	L	003	84-74-2	DI-N-BUTYL PHTHALATE	83 (B)(J)	µg/kg	330
LSB0813B	9/03/87	BNA	SOIL	L	003	79-34-5	1,1,2,2-TETRACHLOROETHANE	200 (J)	µg/kg	NA
LSB0813B	9/03/87	BNA	SOIL	L	003	NA	UNKNOWN	300 (J)	µg/kg	NA
LSB0813B	9/03/87	BNA	SOIL	L	003	NA	UNKNOWN	400 (J)	µg/kg	NA
LSB0813B	9/03/87	BNA	SOIL	L	003	NA	UNKNOWN	1000 (J)	µg/kg	NA
76CLP29	8/24/87	PEST	SOIL	L	3700-3	NA	NONE FOUND	NA	NA	NA
78CLP14	9/02/87	PEST	SOIL	L	3700-3	NA	NONE FOUND	NA	NA	NA

Comments:

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EN083

Organics Analysis Data Sheet
(Page 1)

87FC14535

Laboratory Name: ENCOTEC
Case No: 7795
Lab Sample ID No: EN083V
QC Report No: 1
Sample Matrix: SOIL
Contract No: 68-01-7275
Data Release Authorized By: C.M. [illegible]
Date Sample Received: 8/06/87

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 8/13/87
Date Analyzed: 8/13/87
Conc/Dil Factor: 1 pH 7.0
Percent Moisture: (Not Decanted) 15%

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	12u
74-83-9	Bromomethane	12u
75-01-4	Vinyl Chloride	12u
75-00-3	Chloroethane	12u
75-09-2	Methylene Chloride	11 (B) UJ Cub
67-64-1	Acetone	12u
75-15-0	Carbon Disulfide	6u
75-35-4	1, 1-Dichloroethene	6u
75-34-3	1, 1-Dichloroethane	6u
156-60-5	Trans-1, 2-Dichloroethene	6u
67-66-3	Chloroform	6u
107-06-3	1, 2-Dichloroethane	6u
78-93-3	2-Butanone	12u
71-55-6	1, 1, 1-Trichloroethane	6u
56-23-5	Carbon Tetrachloride	6u
108-05-4	Vinyl Acetate	12u
75-27-4	Bromodichloromethane	6u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	6u
10061-02-6	Trans-1, 3-Dichloropropene	6u
79-01-6	Trichloroethene	6u
124-48-1	Dibromochloromethane	6u
79-00-5	1, 1, 2-Trichloroethane	6u
71-43-2	Benzene	6u
10061-01-5	cis-1, 3-Dichloropropene	6u
110-75-8	2-Chloroethylvinylether	12u
75-25-2	Bromoform	6u
108-10-1	4-Methyl-2-Pentanone	12u
591-78-6	2-Hexanone	12u
127-18-4	Tetrachloroethene	6u
79-34-5	1, 1, 2, 2-Tetrachloroethane	6u
108-88-3	Toluene	6u
108-90-7	Chlorobenzene	6u
100-41-4	Ethylbenzene	6u
100-42-5	Styrene	6u
	Total Xylenes	6u

M-7.

Data Reporting Qualifiers

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

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other 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 data summary report.

00538

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Laboratory Name: ENCOTEC

Case No: 7795

Sample Number
EN 083

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8/14/87

Date Analyzed: 9/4/87

Conc/Dil Factor: 1:10

Percent Moisture (Decanted) 15%

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	3930u
111-44-4	bis(2-Chloroethyl)Ether	3930u
95-57-8	2-Chlorophenol	3930u
541-73-1	1,3-Dichlorobenzene	3930u
106-46-7	1,4-Dichlorobenzene	3930u
100-51-6	Benzyl Alcohol	3930u
95-50-1	1,2-Dichlorobenzene	3930u
95-48-7	2-Methylphenol	3930u
39638-32-9	bis(2-chloroisopropyl)Ether	3930u
106-44-5	4-Methylphenol	3930u
621-64-7	N-Nitroso-Di-n-Propylamine	3930u
67-72-1	Hexachloroethane	3930u
98-95-3	Nitrobenzene	3930u
78-59-1	Isophorone	3930u
88-75-5	2-Nitrophenol	3930u
105-67-9	2,4-Dimethylphenol	3930u
65-85-0	Benzoic Acid	19,600u
111-91-1	bis(2-Chloroethoxy)Methane	3930u
120-83-2	2,4-Dichlorophenol	3930u
120-82-1	1,2,4-Trichlorobenzene	3930u
91-20-3	Naphthalene	1100(J)
106-47-8	4-Chloroaniline	3930u
87-68-3	Hexachlorobutadiene	3930u
59-50-7	4-Chloro-3-Methylphenol	3930u
91-57-6	2-Methylnaphthalene	3930u
77-47-4	Hexachlorocyclopentadiene	3930u
88-06-2	2,4,6-Trichlorophenol	3930u
95-95-4	2,4,5-Trichlorophenol	19,600u
91-58-7	2-Chloronaphthalene	3930u
88-74-4	2-Nitroaniline	19,600u
131-11-3	Dimethyl Phthalate	3930u
208-96-8	Acenaphthylene	3930u
99-09-2	3-Nitroaniline	19,600u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	430(J)
51-28-5	2,4-Dinitrophenol	19,600u
100-02-7	4-Nitrophenol	19,600u
132-64-9	Dibenzofuran	3930u
121-14-2	2,4-Dinitrotoluene	3930u
606-20-2	2,6-Dinitrotoluene	3930u
84-66-2	Diethylphthalate	3930u
7005-72-3	4-Chlorophenyl-phenylether	3930u
86-73-7	Fluorene	570(J)
100-01-6	4-Nitroaniline	19,600u
534-52-1	4,6-Dinitro-2-Methylphenol	19,600u
86-30-6	N-Nitrosodiphenylamine (1)	8200
101-55-3	4-Bromophenyl-phenylether	3930u
118-74-1	Hexachlorobenzene	3930u
87-86-5	Pentachlorophenol	19,600u
85-01-8	Phenanthrene	6800
120-12-7	Anthracene	1500(J)
84-74-2	Di-n-Butylphthalate	3930u
206-44-0	Fluoranthene	9200
129-00-0	Pyrene	9300
85-68-7	Butylbenzylphthalate	3930u
91-94-1	3,3'-Dichlorobenzidine	7860u
56-55-3	Benzo(a)Anthracene	6000
117-81-7	bis(2-Ethylhexyl)Phthalate	320(J)
218-01-9	Chrysene	7000
117-84-0	Di-n-Octyl Phthalate	3930u
205-99-2	Benzo(b)Fluoranthene	8600
207-08-9	Benzo(k)Fluoranthene	3930u
50-32-8	Benzo(a)Pyrene	5100
193-39-5	Indeno(1,2,3-cd)Pyrene	3600(J)
53-70-3	Dibenzo(a,h)Anthracene	1700(J)
191-24-2	Benzo(g,h,i)Perylene	3100(J)

(1)-Cannot be separated from diphenylamine

ecology and environment

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Laboratory Name: ENCOTEC

Case No: 7795

Sample Number: EN083

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8-14-87

Date Analyzed: 8-24-87 9-2-87

Conc/Dil Factor: 30, 9

Percent Moisture (decanted) 15

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)		
319-84-6	Alpha-BHC	27	U	Dil factor of 30
319-85-7	Beta-BHC	27	U	
319-86-8	Delta-BHC	2790	U	
58-89-9	Gamma-BHC (Lindane)	27	U	
76-44-8	Heptachlor	27	U	
309-00-2	Aldrin	27	U	
1024-57-3	Heptachlor Epoxide	27	U	
959-98-8	Endosulfan I	27	U	
60-57-1	Dieldrin	54	U	
72-55-9	4, 4'-DDE	220		1:9
72-20-8	Endrin	110	U	
33213-65-9	Endosulfan II	54	U	
72-54-8	4, 4'-DDD	2600		1:30
1031-07-8	Endosulfan Sulfate	54	U	
50-29-3	4, 4'-DDT	800		1:9
72-43-5	Methoxychlor	270	U	
[illegible]	[illegible]	[illegible]	U	
57-74-9	Chlordane	2200		1:30
8001-35-2	Toxaphene	540	U	
12674-11-2	Aroclor-1016	270	U	
11104-28-2	Aroclor-1221	270	U	
11141-16-5	Aroclor-1232	270	U	
53469-21-9	Aroclor-1242	270	U	
12672-29-6	Aroclor-1248	270	U	
11097-69-1	Aroclor-1254	3000		1:9
11096-82-5	Aroclor-1260	7600		1:9

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 29.9 V_t 20000 V_i 2.0

ecology and environment

recycled paper

Laboratory Name: ENCOTEC

Case No: 7798

Sample Number
EN083

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NA	NO VOLATILES FOUND	VOA	NA	NA
2.	NA	UNKNOWN	BNA	1622	3000 J
3.	NA	4-METHYL PYRENE		1689	2400
4.	NA	UNKNOWN		1732	2200
5.	NA	UNKNOWN PNA		1813	1700
6.	NA	UNKNOWN		2005	3100
7.	NA	UNKNOWN PNA		2092	3900
8.	NA	UNKNOWN HYDROCARBON		2120	1000
9.	NA	UNKNOWN		2143	3600
10.	NA	UNKNOWN HYDROCARBON		2227	6600
11.	NA	UNKNOWN		2242	3400
12.					
13.					
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ecology and environment

Sample Number
recycled paper
EN082

87FC14534

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ENCOTEC
Case No: 7795
Lab Sample ID No: EN082V
QC Report No: 1
Sample Matrix: SOIL
Contract No: 68-01-7275
Data Release Authorized By: C.M. OQ[illegible]
Date Sample Received: 8/06/87

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 8/13/87
Date Analyzed: 8/13/87
Conc/Dil Factor: 1 pH 7.4
Percent Moisture: (Not Decanted) 10%

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	11u
74-83-9	Bromomethane	11u
75-01-4	Vinyl Chloride	11u
75-00-3	Chloroethane	11u
75-09-2	Methylene Chloride	17 (BW)
67-64-1	Acetone	11u
75-15-0	Carbon Disulfide	6u
75-35-4	1, 1-Dichloroethene	6u
75-34-3	1, 1-Dichloroethane	6u
156-60-5	Trans-1, 2-Dichloroethene	6u
67-66-3	Chloroform	6u
107-06-2	1, 2-Dichloroethane	6u
78-93-3	2-Butanone	11u
71-55-6	1, 1, 1-Trichloroethane	6u
56-23-5	Carbon Tetrachloride	6u
108-05-4	Vinyl Acetate	11u
75-27-4	Bromodichloromethane	6u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	6u
10061-02-6	Trans-1, 3-Dichloropropene	6u
79-01-6	Trichloroethene	6u
124-48-1	Dibromochloromethane	6u
79-00-5	1, 1, 2-Trichloroethane	6u
71-43-2	Benzene	6u
10061-01-5	cis-1, 3-Dichloropropene	6u
110-75-8	2-Chloroethylvinylether	11u
75-25-2	Bromoform	6u
108-10-1	4-Methyl-2-Pentanone	11u
591-78-6	2-Hexanone	11u
127-18-4	Tetrachloroethene	6u
79-34-5	1, 1, 2, 2-Tetrachloroethane	6u
108-88-3	Toluene	6u
108-90-7	Chlorobenzene	6u
100-41-4	Ethylbenzene	6u
100-42-5	Styrene	6u
	Total Xylenes	6u

M.F.

Data Reporting Qualifiers

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

Value: If the result is a value greater than or equal to the detection limit, report the value.

U: Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C: This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B: This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other: 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 data summary report.

00412

Laboratory Name: ENCOTEC - AA
Case No: 7795

Sample Number
EN082

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 08/14/87
Date Analyzed: 09/03/87
Conc/Dil Factor: 1.
Percent Moisture: (Decanted) 10.0

GPC Cleanup ___ Yes _X_ No
Separatory Funnel Extraction ___ Yes
Continuous Liquid-Liquid Extraction ___ Yes

CAS Number		UG/KG		CAS Number		UG/KG	
108-95-2	Phenol	370	U	83-32-9	Acenaphthene	370	U
111-44-4	bis(2-Chloroethyl)Ether	370	U	51-28-5	2,4-Dinitrophenol	1800	U
95-57-8	2-Chlorophenol	370	U	100-02-7	4-Nitrophenol	1800	U
541-73-1	1,3-Dichlorobenzene	370	U	132-64-9	Dibenzofuran	370	U
106-46-7	1,4-Dichlorobenzene	370	U	121-14-2	2,4-Dinitrotoluene	370	U
100-51-6	Benzyl Alcohol	370	U	606-20-2	2,6-Dinitrotoluene	370	U
95-50-1	1,2-Dichlorobenzene	370	U	84-66-2	Diethylphthalate	370	U
95-48-7	2-Methylphenol	370	U	7005-72-3	4-Chlorophenyl-phenylether	370	U
39638-32-9	bis(2-Chloroisopropyl)Ether	370	U	86-73-7	Fluorene	370	U
106-44-5	4-Methylphenol	370	U	100-10-6	4-Nitroaniline	1800	U
621-64-7	N-Nitroso-Di-n-Propylamine	370	U	534-52-1	4,6-Dinitro-2-Methylphenol	1800	U
67-72-1	Hexachloroethane	370	U	86-30-6	N-Nitrosodiphenylamine (1)	230	J
98-95-3	Nitrobenzene	370	U	101-55-3	4-Bromophenyl-phenylether	370	U
78-59-1	Isophorone	700		118-74-1	Hexachlorobenzene	370	U
88-75-5	2-Nitrophenol	370	U	87-86-5	Pentachlorophenol	1800	U
105-67-9	2,4-Dimethylphenol	370	U	85-01-8	Phenanthrene	540	
65-85-0	Benzoic Acid	1800	U	120-12-7	Anthracene	150	J
111-91-1	bis(2-Chloroethoxy)Methane	370	U	84-74-2	Di-n-Butylphthalate	450	B
120-83-2	2,4-Dichlorophenol	370	U	206-44-0	Fluoranthene	1100	
120-82-1	1,2,4-Trichlorobenzene	370	U	129-00-0	Pyrene	620	
91-20-3	Naphthalene	420		85-68-7	Butylbenzylphthalate	190	J
106-47-8	4-Chloroaniline	370	U	91-94-1	3,3'-Dichlorobenzidine	730	U
87-68-3	Hexachlorobutadiene	370	U	56-55-3	Benzo(a)Anthracene	520	
59-50-7	4-Chloro-3-Methylphenol	370	U	117-81-7	bis(2-Ethylhexyl)Phthalate	870	
91-57-6	2-Methylnaphthalene	240	J	218-01-9	Chrysene	620	
77-47-4	Hexachlorocyclopentadiene	370	U	117-84-0	Di-n-Octyl Phthalate	56	J
88-06-2	2,4,6-Trichlorophenol	370	U	205-99-2	Benzo(b)Fluoranthene	370	U
95-95-4	2,4,5-Trichlorophenol	1800	U	207-08-9	Benzo(k)Fluoranthene	1200	
91-58-7	2-Chloronaphthalene	370	U	50-32-8	Benzo(a)Pyrene	420	
88-74-4	2-Nitroaniline	1800	U	193-39-5	Indeno(1,2,3-cd)Pyrene	394	
131-11-3	Dimethyl Phthalate	370	U	53-70-3	Dibenz(a,h)Anthracene	370	U
208-96-8	Acenaphthylene	170	J	191-24-2	Benzo(g,h,i)Perylene	370	U
99-09-2	3-Nitroaniline	1800	U				

(1) - Cannot be separated from diphenylamine

Form I

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ecology and environment

Laboratory Name: ENCOTEC

Case No.: 7795

Sample Number: EN082

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8-14-87

Date Analyzed: 9-2-87

Conc/(Dil Factor): 3

Percent Moisture (decanted): 10

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)		
319-84-6	Alpha-BHC	9.0	U	
319-85-7	Beta-BHC	9.0	U	
319-86-8	Delta-BHC	9.0	U	
58-89-9	Gamma-BHC (Lindane)	9.0	U	
76-44-8	Heptachlor	9.0	U	
309-00-2	Aldrin	9.0	U	
1024-57-3	Heptachlor Epoxide	9.0	U	
959-98-8	Endosulfan I	9.0	U	
60-57-1	Dieldrin	18	U	
72-55-9	4,4'-DDE	36	U	
72-20-8	Endrin	54	U	
33213-65-9	Endosulfan II	18	U	
72-54-8	4,4'-DDD	~~90~~ 110	~~U~~	9-11-87
1031-07-8	Endosulfan Sulfate	36	U	
50-29-3	4,4'-DDT	140	U	
72-43-5	Methoxychlor	90	U	
53494-70-5	Endrin Ketone	18	U	
57-74-9	Chlordane	1800		1:3
8001-35-2	Toxaphene	180	U	
12674-11-2	Aroclor-1016	180	U	
11104-28-2	Aroclor-1221	90	U	
11141-16-5	Aroclor-1232	90	U	
53469-21-9	Aroclor-1242	90	U	
12672-29-6	Aroclor-1248	90	U	
11097-69-1	Aroclor-1254	770		1:3
11096-82-5	Aroclor-1260	1000		1:3

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 29.9 V_t 20000 V_i 2.0

Form 1

recycled paper

ecology and environment

Laboratory Name: ENCOTEC

Case No: 7795

Sample Number: ENO82

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. NA	NO VOLATILES FOUND	VOA	NA	NA
2. NA	XYLENE	BNA	367	700 (J)
3. NA	UNKNOWN	BNA	403	620 (J)
4. 620-14-4	1-ETHYL-3-METHYL BENZENE	BNA	464	360 (J)
5. NA	UNKNOWN	BNA	483	370 (J)
6. NA	UNKNOWN	BNA	569	1400 (J)
7. NA	UNKNOWN HYDROCARBON	BNA	589	510 (J)
8. NA	UNKNOWN	BNA	999	280 (J)
9. NA	UNKNOWN	BNA	1101	280 (J)
10. NA	UNKNOWN	BNA	1290	240 (J)
11. NA	UNKNOWN	BNA	1295	280 (J)
12. NA	UNKNOWN	BNA	1411	410 (J)
13. NA	UNKNOWN	BNA	1416	270 (J)
14. 613-12-7	2-METHYL ANTHRACENE	BNA	1461	330 (J)
15. NA	UNKNOWN	BNA	1515	820 (J)
16. NA	UNKNOWN	BNA	1943	440 (J)
17. NA	UNKNOWN PNA	BNA	2067	850 (J)
18. NA	UNKNOWN	BNA	2134	10000 (J)
19. NA	UNKNOWN HYDROCARBON	BNA	2240	2500 (J)
20. NA	UNKNOWN	BNA	2253	1400 (J)
21. NA	UNKNOWN	BNA	2383	1800 (J)
22.				
23.				
24.				
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30.				

00415

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ecology and environment

ENO81

87FC14533

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ENCOTEC
Case No: 7795
Lab Sample ID No: ENO81V
QC Report No: 1
Sample Matrix: SOIL
Contract No: 68-01-7275
Data Release Authorized By: C.M. [illegible]
Date Sample Received: 8/06/87

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 8/13/87
Date Analyzed: 8/13/87
Conc/Dil Factor: 1 pH 7.8
Percent Moisture: (Not Decanted) 6%

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	11u
74-83-9	Bromomethane	11u
75-01-4	Vinyl Chloride	11u
75-00-3	Chloroethane	11u
75-09-2	Methylene Chloride	20 (B)
67-64-1	Acetone	11u
75-15-0	Carbon Disulfide	5u
75-35-4	1,1-Dichloroethene	5u
75-34-3	1,1-Dichloroethane	5u
156-60-5	Trans-1,2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1,2-Dichloroethane	5u
78-93-3	2-Butanone	11u
71-55-6	1,1,1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	11u
75-27-4	Bromodichloromethane	5u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	5u
10061-02-6	Trans-1,3-Dichloropropene	5u
79-01-6	Trichloroethene	5u
124-48-1	Dibromochloromethane	5u
79-00-5	1,1,2-Trichloroethane	5u
71-43-2	Benzene	5u
10061-01-5	cis-1,3-Dichloropropene	5u
110-75-8	2-Chloroethylvinylether	11u
75-25-2	Bromoform	5u
108-10-1	4-Methyl-2-Pentanone	11u
591-78-6	2-Hexanone	11u
127-18-4	Tetrachloroethene	5u
79-34-5	1,1,2,2-Tetrachloroethane	5u
108-88-3	Toluene	5u
108-90-7	Chlorobenzene	5u
100-41-4	Ethylbenzene	5u
100-42-5	Styrene	5u
	Total Xylenes	5u

M.F.

Data Reporting Qualifiers

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

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — 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 data summary report.

00309

Laboratory Name: ENCOTEC - AA
Case No: 7795

Sample Number
EN081

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 08/14/87
Date Analyzed: 09/03/87
Conc/Dil Factor: 1.
Percent Moisture: (Decanted) 6.0

GPC Cleanup ___ Yes X No
Separatory Funnel Extraction ___ Yes
Continuous Liquid-Liquid Extraction ___ Yes

CWO 9/11/8

CAS Number		UG/KG		CAS Number		UG/KG	
108-95-2	Phenol	350	U	83-32-9	Acenaphthene	350 ~~120~~	2 U
111-44-4	bis(2-Chloroethyl)Ether	350	U	51-28-5	2,4-Dinitrophenol	1700	U
95-57-8	2-Chlorophenol	350	U	100-02-7	4-Nitrophenol	1700	U
541-73-1	1,3-Dichlorobenzene	350	U	132-64-9	Dibenzofuran	350	U
106-46-7	1,4-Dichlorobenzene	350	U	121-14-2	2,4-Dinitrotoluene	350	U
100-51-6	Benzyl Alcohol	350	U	606-20-2	2,6-Dinitrotoluene	350	U
95-50-1	1,2-Dichlorobenzene	350	U	84-66-2	Diethylphthalate	350	U
95-48-7	2-Methylphenol	350	U	7005-72-3	4-Chlorophenyl-phenylether	350	U
39638-32-9	bis(2-Chloroisopropyl)Ether	350	U	86-73-7	Fluorene	140	J
106-44-5	4-Methylphenol	350	U	100-10-6	4-Nitroaniline	1700	U
621-64-7	N-Nitroso-Di-n-Propylamine	350	U	534-52-1	4,6-Dinitro-2-Methylphenol	1700	U
67-72-1	Hexachloroethane	350	U	86-30-6	N-Nitrosodiphenylamine (1)	1200	B
98-95-3	Nitrobenzene	350	U	101-55-3	4-Bromophenyl-phenylether	350	U
78-59-1	Isophorone	140	J	118-74-1	Hexachlorobenzene	350	U
88-75-5	2-Nitrophenol	350	U	87-86-5	Pentachlorophenol	1700	U
105-67-9	2,4-Dimethylphenol	350	U	85-01-8	Phenanthrene	1600	
65-85-0	Benzoic Acid	1700	U	120-12-7	Anthracene	430	
111-91-1	bis(2-Chloroethoxy)Methane	350	U	84-74-2	Di-n-Butylphthalate	~~350~~	B WJ
120-83-2	2,4-Dichlorophenol	350	U	206-44-0	Fluoranthene	~~3100~~	
120-82-1	1,2,4-Trichlorobenzene	87	J	129-00-0	Pyrene	1600	
91-20-3	Naphthalene	270	J	85-68-7	Butylbenzylphthalate	~~350~~	U
106-47-8	4-Chloroaniline	350	U	91-94-1	3,3'-Dichlorobenzidine	700	U
87-68-3	Hexachlorobutadiene	350	U	56-55-3	Benzo(a)Anthracene	~~350~~	U
59-50-7	4-Chloro-3-Methylphenol	350	U	117-81-7	bis(2-Ethylhexyl)Phthalate	660	
91-57-6	2-Methylnaphthalene	170	J	218-01-9	Chrysene	1200	
77-47-4	Hexachlorocyclopentadiene	350	U	117-84-0	Di-n-Octyl Phthalate	350	U
88-06-2	2,4,6-Trichlorophenol	350	U	205-99-2	Benzo(b)Fluoranthene	~~350~~	U
95-95-4	2,4,5-Trichlorophenol	1700	U	207-08-9	Benzo(k)Fluoranthene	3000	
91-58-7	2-Chloronaphthalene	350	U	50-32-8	Benzo(a)Pyrene	1300	
88-74-4	2-Nitroaniline	1700	U	193-39-5	Indeno(1,2,3-cd)Pyrene	350	U
131-11-3	Dimethyl Phthalate	~~350~~	U	53-70-3	Dibenz(a,h)Anthracene	350	U
208-96-8	Acenaphthylene	480		191-24-2	Benzo(g,h,i)Perylene	350	U
99-09-2	3-Nitroaniline	1700	U				

M.A.

(1) - Cannot be separated from diphenylamine

Form I

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Laboratory Name: ENCOTEC

Case No: 7795

Sample Number: EN081

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8-14-87

Date Analyzed: 9-2-87

Conc/(Dil Factor): 9.3

Percent Moisture (decanted): 6

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)		
319-84-6	Alpha-BHC	8.0	U	— Dil. Factor of 3
319-85-7	Beta-BHC	8.0	U	
319-86-8	Delta-BHC	8.0	U	
58-89-9	Gamma-BHC (Lindane)	8.0	U	
76-44-8	Heptachlor	8.0	U	
309-00-2	Aldrin	8.0	U	
1024-57-3	Heptachlor Epoxide	8.0	U	
959-98-8	Endosulfan I	8.0	U	
60-57-1	Dieldrin	32	U	
72-55-9	4,4'-DDE	32	U	
72-20-8	Endrin	32	U	
33213-65-9	Endosulfan II	32	U	
72-54-8	4,4'-DDD	77		1:3 New D.L.
1031-07-8	Endosulfan Sulfate	32	U	
50-29-3	4,4'-DDT	54	U	
72-43-5	Methoxychlor	80	U	
53494-70-5	Endrin Ketone	16	U	
57-74-9	Chlordane	640		1:9
8001-35-2	Toxaphene	160	U	
12674-11-2	Aroclor-1016	160	U	
11104-28-2	Aroclor-1221	80	U	The 9-4-87
11141-16-5	Aroclor-1232	80	U	
53469-21-9	Aroclor-1242	90	U	
12672-29-6	Aroclor-1248	80	U	
11097-69-1	Aroclor-1254	220		1:3 >KO D.L.
11096-82-5	Aroclor-1260	210		1:3

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.0 V_t 20000 V_i 2.0

Laboratory Name: ENCOTEC

Case No: 7795

Sample Number: EN081

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NA	NO VOLATILES FOUND	VOA	NA	NA
2.	NA	UNKNOWN	BNA	396	510 J
3.	NA	UNKNOWN HYDROCARBON	BNA	1294	430 J
4.	NA	UNKNOWN HYDROCARBON	BNA	1415	360 J
5.	832-71-3	3-methyl PHENANTHRENE	BNA	1460	630 J
6.	NA	UNKNOWN	BNA	1843	620 J
7.	NA	UNKNOWN HYDROCARBON	BNA	2018	1200 J
8.	NA	UNKNOWN	BNA	2094	1500 J
9.	NA	UNKNOWN	BNA	2136	9500 J
10.	NA	UNKNOWN HYDROCARBON	BNA	2241	2500 J
11.	NA	UNKNOWN	BNA	2274	750 J
12.	NA	UNKNOWN	BNA	2315	530 J
13.	NA	UNKNOWN HYDROCARBON	BNA	2357	670 J
14.	NA	UNKNOWN	BNA	2385	920 J
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16.					
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Sample Number
EN080

97FC14532

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ENCOTEC
Case No: 7795
Lab Sample ID No: EN080V
QC Report No: 1
Sample Matrix: SOIL
Contract No: 68-01-7775
Data Release Authorized By: C.M. Cl
Date Sample Received: 8/06/87

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 8/13/87
Date Analyzed: 8/13/87
Conc/Dil Factor: 1 pH 7.1
Percent Moisture: (Not Decanted) 7

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	11u
74-83-9	Bromomethane	11u
75-01-4	Vinyl Chloride	11u
75-00-3	Chloroethane	11u
75-09-2	Methylene Chloride	6 (B)(J) one
67-64-1	Acetone	11u
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	11u
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	11u
75-27-4	Bromodichloromethane	5u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5u
10061-02-6	Trans-1, 3-Dichloropropene	5u
79-01-6	Trichloroethene	5u
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-2	Benzene	5u
10061-01-5	cis-1, 3-Dichloropropene	5u
110-75-8	2-Chloroethylvinylether	11u
75-25-2	Bromoform	5u
108-10-1	4-Methyl-2-Pentanone	11u
591-78-6	2-Hexanone	11u
127-18-4	Tetrachloroethene	5u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5u
108-88-3	Toluene	5u
108-90-7	Chlorobenzene	5u
100-41-4	Ethylbenzene	5u
100-42-5	Styrene	5u
	Total Xylenes	5u

M.F.

Data Reporting Qualifiers

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

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other 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 data summary report.

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Laboratory Name: ENCOTEC - AA
Case No: 7795

Sample Number
EN080

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 08/14/87
Date Analyzed: 09/03/87
Conc/Dil Factor: 1.
Percent Moisture: (Decanted) 7.0

GPC Cleanup ___ Yes _X_ No
Separatory Funnel Extraction ___ Yes
Continuous Liquid-Liquid Extraction ___ Yes

CAS Number		UG/KG		CAS Number		UG/KG	
108-95-2	Phenol	350	U	83-32-9	Acenaphthene	160	J
111-44-4	bis(2-Chloroethyl)Ether	350	U	51-28-5	2,4-Dinitrophenol	1700	U
95-57-8	2-Chlorophenol	350	U	100-02-7	4-Nitrophenol	1700	U
541-73-1	1,3-Dichlorobenzene	350	U	132-64-9	Dibenzofuran	220	J
106-46-7	1,4-Dichlorobenzene	350	U	121-14-2	2,4-Dinitrotoluene	350	U
100-51-6	Benzyl Alcohol	350	U	606-20-2	2,6-Dinitrotoluene	350	U
95-50-1	1,2-Dichlorobenzene	350	U	84-66-2	Diethylphthalate	350	U
95-48-7	2-Methylphenol	350	U	7005-72-3	4-Chlorophenyl-phenylether	350	U
108638-32-9	bis(2-Chloroisopropyl)Ether	350	U	86-73-7	Fluorene	220	J
106-44-5	4-Methylphenol	350	U	100-10-6	4-Nitroaniline	1700	U
621-64-7	N-Nitroso-Di-n-Propylamine	350	U	534-52-1	4,6-Dinitro-2-Methylphenol	1700	U
67-72-1	Hexachloroethane	350	U	86-30-6	N-Nitrosodiphenylamine (1)	1500	B
98-95-3	Nitrobenzene	350	U	101-55-3	4-Bromophenyl-phenylether	350	U
78-59-1	Isophorone	3100		118-74-1	Hexachlorobenzene	350	U
88-75-5	2-Nitrophenol	350	U	87-86-5	Pentachlorophenol	1700	U
105-67-9	2,4-Dimethylphenol	350	U	85-01-8	Phenanthrene	2600	
65-85-0	Benzoic Acid	1700	U	120-12-7	Anthracene	640	
111-91-1	bis(2-Chloroethoxy)Methane	350	U	84-74-2	Di-n-Butylphthalate	350	U
120-83-2	2,4-Dichlorophenol	350	U	206-44-0	Fluoranthene	3500	
120-82-1	1,2,4-Trichlorobenzene	350	U	129-00-0	Pyrene	2600	
91-20-3	Naphthalene	1000		85-68-7	Butylbenzylphthalate	350	U
106-47-8	4-Chloroaniline	350	U	91-94-1	3,3'-Dichlorobenzidine	710	U
87-68-3	Hexachlorobutadiene	350	U	56-55-3	Benzo(a)Anthracene	1400	
59-50-7	4-Chloro-3-Methylphenol	350	U	117-81-7	bis(2-Ethylhexyl)Phthalate	7400	
91-57-6	2-Methylnaphthalene	880		218-01-9	Chrysene	2000	
77-47-4	Hexachlorocyclopentadiene	350	U	117-84-0	Di-n-Octyl Phthalate	1000	
88-06-2	2,4,6-Trichlorophenol	350	U	205-99-2	Benzo(b)Fluoranthene	3400	
95-95-4	2,4,5-Trichlorophenol	1700	U	207-08-9	Benzo(k)Fluoranthene	~~2000~~ 3500	U
91-58-7	2-Chloronaphthalene	350	U	50-32-8	Benzo(a)Pyrene	2200	
88-74-4	2-Nitroaniline	1700	U	193-39-5	Indeno(1,2,3-cd)Pyrene	~~350~~ 1019	U
131-11-3	Dimethyl Phthalate	100	J	53-70-3	Dibenz(a,h)Anthracene	350	U
208-96-8	Acenaphthylene	610		191-24-2	Benzo(g,h,i)Perylene	910	
99-09-2	3-Nitroaniline	1700	U				

(1) - Cannot be separated from diphenylamine

Form I

Laboratory Name: ENCOTEC

Case No: 7795

Sample Number: EN080

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8-14-87

Date Analyzed: ~~8-24-87~~ 9-2-87

Conc/Dil Factor: 30 9

Percent Moisture (decanted): 2

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)		
319-84-6	Alpha-BHC	54	U	Dil. of 30
319-85-7	Beta-BHC	54	U	
319-86-8	Delta-BHC	81	U	
58-89-9	Gamma-BHC (Lindane)	54	U	
76-44-8	Heptachlor	54	U	
309-00-2	Aldrin	54	U	
1024-57-3	Heptachlor Epoxide	54	U	
959-98-8	Endosulfan I	54	U	
60-57-1	Dieldrin	110	U	
72-55-9	4,4'-DDE	110	U	
72-20-8	Endrin	320	U	
33213-65-9	Endosulfan II	110	U	
72-54-8	4,4'-DDD	140		1:9
1031-07-8	Endosulfan Sulfate	110	U	
50-29-3	4,4'-DDT	160	U	
72-43-5	Methoxychlor	540	U	
53494-70-5	Endrin Ketone	110	U	
57-74-9	Chlordane	8100		1:30 540 DL.
8001-35-2	Toxaphene	1100	U	
12674-11-2	Aroclor-1016	540	U	
11104-28-2	Aroclor-1221	540	U	
11141-16-5	Aroclor-1232	540	U	
53469-21-9	Aroclor-1242	540	U	
12672-29-6	Aroclor-1248	~~540~~	U	
11097-69-1	Aroclor-1254	5220		1:9
11096-82-5	Aroclor-1260	4500		1:9

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s ____ or W_s 30.0 V_i 20 000 V_t 2.0

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Laboratory Name: ENCOTEC

Case No.: 7795

Sample Number: ENO'80

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. NA	NO VOLATILES FOUND	VOA	NA	NA
2. 100-42-5	STYRENE	BNA	358	1700 (J)
3. NA	XYLENE	BNA	360	1800 (J)
4. NA	UNKNOWN	BNA	565	980 (J)
5. 581-40-8	2,3-DIMETHYLNAPHTHALENE	BNA	998	900 (J)
6. 575-41-7	1,3-DIMETHYLNAPHTHALENE	BNA	1015	900 (J)
7. NA	UNKNOWN	BNA	1100	710 (J)
8. NA	UNKNOWN HYDROCARBON	BNA	1197	580 (J)
9. NA	UNKNOWN HYDROCARBON	BNA	1296	2800 (J)
10. NA	UNKNOWN HYDROCARBON	BNA	1290	1200 (J)
11. NA	UNKNOWN	BNA	1453	2700 (J)
12. 613-13-7	2-METHYLANTHRACENE	BNA	1463	1600 (J)
13. 883-20-5	9-METHYL PHENANTHRACENE	BNA	1478	1800 (J)
14. NA	UNKNOWN	BNA	1519	3200 (J)
15. NA	UNKNOWN	BNA	1611	1700 (J)
16. NA	UNKNOWN	BNA	1951	700 (J)
17. NA	UNKNOWN	BNA	1964	1100 (J)
18. NA	UNKNOWN	BNA	1980	1000 (J)
19. NA	UNKNOWN	BNA	2004	350 (J)
20. NA	UNKNOWN	BNA	2085	380 (J)
21. NA	UNKNOWN	BNA	2237	360 (J)
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ENO18

87FC14531

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ENGOTEC

Case No: 7795

Lab Sample ID No: ENO18V

QC Report No: 1

Sample Matrix: SOIL

Contract No: 68-01-7275

Data Release Authorized By: C.M. Oh

Date Sample Received: 8/06/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/13/87

Date Analyzed: 8/13/87

Conc/Dil Factor: 1 pH 7.1

Percent Moisture: (Not Decanted) 9%

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	11u	
74-83-9	Bromomethane	11u	
75-01-4	Vinyl Chloride	11u	
75-00-3	Chloroethane	11u	
75-09-2	Methylene Chloride	11 (B) W	CMD
67-64-1	Acetone	114	CMD
75-15-0	Carbon Disulfide	5u	
75-35-4	1, 1-Dichloroethene	5u	
75-34-3	1, 1-Dichloroethane	5u	
156-60-5	Trans-1, 2-Dichloroethene	5u	
67-66-3	Chloroform	1 (J)	CMD
107-06-2	1, 2-Dichloroethane	5u	
78-93-3	2-Butanone	11u	
71-55-6	1, 1, 1-Trichloroethane	5u	
56-23-5	Carbon Tetrachloride	5u	
108-05-4	Vinyl Acetate	11u	
75-27-4	Bromodichloromethane	5u	

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	5u	
10061-02-6	Trans-1, 3-Dichloropropene	5u	
79-01-6	Trichloroethene	5u	
124-48-1	Dibromochloromethane	5u	
79-00-5	1, 1, 2-Trichloroethane	5u	
71-43-2	Benzene	2 (J)	CMD
10061-01-5	cis-1, 3-Dichloropropene	5u	
110-75-8	2-Chloroethylvinylether	11u	
75-25-2	Bromoform	5u	
108-10-1	4-Methyl-2-Pentanone	46	CMD
591-78-6	2-Hexanone	11u	
127-18-4	Tetrachloroethene	5u	
79-34-5	1, 1, 2, 2-Tetrachloroethane	5u	
108-88-3	Toluene	5u	
108-90-7	Chlorobenzene	5u	
100-41-4	Ethylbenzene	5u	
100-42-5	Styrene	5u	
	Total Xylenes	5u	

Data Reporting Qualifiers

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

M.7.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other 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 data summary report.

11/85

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ecology and environment

Laboratory Name: ENCOTEC - AA
Case No: 7795

Sample Number
EN018

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 08/14/87
Date Analyzed: 09/03/87
Conc/Dil Factor: 1.
Percent Moisture: (Decanted) 9.0

GPC Cleanup ___ Yes _X_ No
Separatory Funnel Extraction ___ Yes
Continuous Liquid-Liquid Extraction ___ Yes

CAS Number		UG/KG		CAS Number		UG/KG	
108-95-2	Phenol	360	U	83-32-9	Acenaphthene	170	J
1-44-4	bis(2-Chloroethyl)Ether	360	U	51-28-5	2,4-Dinitrophenol	1800	U
-57-8	2-Chlorophenol	360	U	100-02-7	4-Nitrophenol	1800	U
41-73-1	1,3-Dichlorobenzene	360	U	132-64-9	Dibenzofuran	260	J
6-46-7	1,4-Dichlorobenzene	360	U	121-14-2	2,4-Dinitrotoluene	360	U
0-51-6	Benzyl Alcohol	360	U	606-20-2	2,6-Dinitrotoluene	360	U
5-50-1	1,2-Dichlorobenzene	360	U	84-66-2	Diethylphthalate	360	U
5-48-7	2-Methylphenol	360	U	7005-72-3	4-Chlorophenyl-phenylether	360	U
638-32-9	bis(2-Chloroisopropyl)Ether	360	U	86-73-7	Fluorene	460	
06-44-5	4-Methylphenol	360	U	100-10-6	4-Nitroaniline	1800	U
21-64-7	N-Nitroso-Di-n-Propylamine	360	U	534-52-1	4,6-Dinitro-2-Methylphenol	1800	U
-72-1	Hexachloroethane	360	U	86-30-6	N-Nitrosodiphenylamine (1)	1800	B
-95-3	Nitrobenzene	360	U	101-55-3	4-Bromophenyl-phenylether	360	U
8-59-1	Isophorone	510		118-74-1	Hexachlorobenzene	360	U
-75-5	2-Nitrophenol	360	U	87-86-5	Pentachlorophenol	1800	U
5-67-9	2,4-Dimethylphenol	360	U	85-01-8	Phenanthrene	2800	
5-85-0	Benzoic Acid	1800	U	120-12-7	Anthracene	770	
11-91-1	bis(2-Chloroethoxy)Methane	360	U	84-74-2	Di-n-Butylphthalate	360	U
0-83-2	2,4-Dichlorophenol	360	U	206-44-0	Fluoranthene	3500	
0-82-1	1,2,4-Trichlorobenzene	97	J	129-00-0	Pyrene	2100	
91-20-3	Naphthalene	470		85-68-7	Butylbenzylphthalate	360	U
5-47-8	4-Chloroaniline	360	U	91-94-1	3,3'-Dichlorobenzidine	730	U
-68-3	Hexachlorobutadiene	360	U	56-55-3	Benzo(a)Anthracene	1600	
59-50-7	4-Chloro-3-Methylphenol	360	U	117-81-7	bis(2-Ethylhexyl)Phthalate	360	U
-57-6	2-Methylnaphthalene	270	J	218-01-9	Chrysene	1700	
-47-4	Hexachlorocyclopentadiene	360	U	117-84-0	Di-n-Octyl Phthalate	360	U
88-06-2	2,4,6-Trichlorophenol	360	U	205-99-2	Benzo(b)Fluoranthene	3300	
95-95-4	2,4,5-Trichlorophenol	1800	U	207-08-9	Benzo(k)Fluoranthene	430	
-58-7	2-Chloronaphthalene	360	U	50-32-8	Benzo(a)Pyrene	1800	
-74-4	2-Nitroaniline	1800	U	193-39-5	Indeno(1,2,3-cd)Pyrene	1000	
131-11-3	Dimethyl Phthalate	360	U	53-70-3	Dibenz(a,h)Anthracene	380	
8-96-8	Acenaphthylene	840		191-24-2	Benzo(g,h,i)Perylene	780	
-09-2	3-Nitroaniline	1800	U				

(1) - Cannot be separated from diphenylamine

Form I

Laboratory Name: ENCOTEC

Case No. 7795

Sample Number: EN018

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8-14-87

Date Analyzed: 8-24-87

Conc/Dil Factor: 30

Percent Moisture (decanted): 9

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	90	U
319-85-7	Beta-BHC	90	U
319-86-8	Delta-BHC	90	U
58-89-9	Gamma-BHC (Lindane)	90	U
76-44-8	Heptachlor	90	U
309-00-2	Aldrin	90	U
1024-57-3	Heptachlor Epoxide	90	U
959-98-8	Endosulfan I	90	U
60-57-1	Dieldrin	180	U
72-55-9	4,4'-DDE	360	U
72-20-8	Endrin	900	U
33213-65-9	Endosulfan II	180	U
72-54-8	4,4'-DDD	500	
1031-07-8	Endosulfan Sulfate	180	U
50-29-3	4,4'-DDT	180	U
72-43-5	Methoxychlor	180	U
53494-70-5	Endrin Ketone	180	U
57-74-9	Chlordane	18000	180 D.L.
8001-35-2	Toxaphene	3600	U
12674-11-2	Aroclor-1016	900	U
11104-28-2	Aroclor-1221	900	U
11141-16-5	Aroclor-1232	900	U
53469-21-9	Aroclor-1242	900	U
12672-29-6	Aroclor-1248	900	U
11097-69-1	Aroclor-1254	22000	
11096-82-5	Aroclor-1260	17000	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s ____ or W_s 29.9 V_t 20,000 V_i 2.0

Laboratory Name INCOTEC

Case No. 7795

Sample Number
ENDIB

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. NA	UNKNOWN ALCOHOL	VOA	244	100 J
2. NA	UNKNOWN	VOA	305	10 J
3. NA	UNKNOWN	BNA	392	670 J
4. NA	UNKNOWN	BNA	494	2000 J
5. 85-44-9	PHTHALIC ANHYDRIDE	BNA	900	680 J
6. NA	UNKNOWN HYDROCARBON	BNA	1294	510 J
7. NA	UNKNOWN ORGANIC ACID	BNA	1523	1800 J
8. 25429-29-2	PENTACHLORO BIPHENYL	BNA	1599	1000 J
9. 25429-29-2	PENTACHLORO BIPHENYL	BNA	1637	1600 J
10. 25429-29-2	PENTACHLORO BIPHENYL	BNA	1677	1100 J
11. 25429-29-2	PENTACHLORO BIPHENYL	BNA	1693	930 J
12. 26601-64-9	HEXACHLORO BIPHENYL	BNA	1769	830 J
13. 26601-64-9	HEXACHLORO BIPHENYL	BNA	1809	900 J
14. NA	HEPTACHLORO BIPHENYL	BNA	1834	790 J
15. NA	UNKNOWN	BNA	1849	800 J
16. NA	UNKNOWN	BNA	1951	4000 J
17. NA	UNKNOWN	BNA	1982	2000 J
18. NA	UNKNOWN	BNA	2026	810 J
19. NA	UNKNOWN	BNA	2101	1300 J
20. NA	UNKNOWN UNSATURATED HYDROCARBON	BNA	2146	2700 J
21. NA	UNKNOWN	BNA	2247	860 J
22. NA	UNKNOWN	BNA	1858	400 J
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Sample Number
ET434

Organics Analysis Data Sheet
(Page 1)

87FC14538

Laboratory Name: ENCOTEC
Case No: 7795
Lab Sample ID No: ET434
QC Report No: 1
Sample Matrix: SOIL
Contract No: 68-01-7275
Data Release Authorized By: C.M. Oli
Date Sample Received: 8/06/87

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 8/13/87
Date Analyzed: 8/13/87
Conc/Dil Factor: 1 pH 7.4
Percent Moisture: (Not Decanted) 6%

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	11u
74-83-9	Bromomethane	11u
75-01-4	Vinyl Chloride	11u
75-00-3	Chloroethane	11u
75-09-2	Methylene Chloride	9 (B) U
67-64-1	Acetone	34
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	11u
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	11u
75-27-4	Bromodichloromethane	5u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5u
10061-02-6	Trans-1, 3-Dichloropropene	5u
79-01-6	Trichloroethene	5u
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-2	Benzene	5u
10061-01-5	cis-1, 3-Dichloropropene	5u
110-75-8	2-Chloroethylvinylether	11u
75-25-2	Bromoform	5u
108-10-1	4-Methyl-2-Pentanone	11u
591-78-6	2-Hexanone	11u
127-18-4	Tetrachloroethene	5u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5u
108-88-3	Toluene	5u
108-90-7	Chlorobenzene	5u
100-41-4	Ethylbenzene	5u
100-42-5	Styrene	5u
	Total Xylenes	5u

M.F.

Data Reporting Qualifiers

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

Value	If the result is a value greater than or equal to the detection limit, report the value.
U	Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.
C	This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.
B	This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
Other	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 data summary report.

00849

11/85

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Laboratory Name: ENCOTEC - AA
Case No: 7795

Sample Number
ET434

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 08/14/87
Date Analyzed: 09/04/87
Conc/Dil Factor: 1.
Percent Moisture: (Decanted) 6.0

GPC Cleanup ___ Yes _X_ No
Separatory Funnel Extraction ___ Yes
Continuous Liquid-Liquid Extraction ___ Yes

CAS Number		UG/KG		CAS Number		UG/KG	
108-95-2	Phenol	350	U	83-32-9	Acenaphthene	350	U
111-44-4	bis(2-Chloroethyl)Ether	350	U	51-28-5	2,4-Dinitrophenol	1700	U
95-57-8	2-Chlorophenol	350	U	100-02-7	4-Nitrophenol	1700	U
541-73-1	1,3-Dichlorobenzene	350	U	132-64-9	Dibenzofuran	350	U
106-46-7	1,4-Dichlorobenzene	350	U	121-14-2	2,4-Dinitrotoluene	350	U
100-51-6	Benzyl Alcohol	350	U	606-20-2	2,6-Dinitrotoluene	350	U
95-50-1	1,2-Dichlorobenzene	350	U	84-66-2	Diethylphthalate	350	U
95-48-7	2-Methylphenol	350	U	7005-72-3	4-Chlorophenyl-phenylether	350	U
108-60-1	bis(2-Chloroisopropyl)Ether	350	U	86-73-7	Fluorene	350	U
106-44-5	4-Methylphenol	350	U	100-10-6	4-Nitroaniline	1700	U
621-64-7	N-Nitroso-Di-n-Propylamine	350	U	534-52-1	4,6-Dinitro-2-Methylphenol	1700	U
67-72-1	Hexachloroethane	350	U	86-30-6	N-Nitrosodiphenylamine (1)	~~350~~	~~U~~ 35
98-95-3	Nitrobenzene	350	U	101-55-3	4-Bromophenyl-phenylether	350	U
78-59-1	Isophorone	350	U	118-74-1	Hexachlorobenzene	350	U
88-75-5	2-Nitrophenol	350	U	87-86-5	Pentachlorophenol	1700	U
105-67-9	2,4-Dimethylphenol	350	U	85-01-8	Phenanthrene	270	J
65-85-0	Benzoic Acid	1700	U	120-12-7	Anthracene	85	J
111-91-1	bis(2-Chloroethoxy)Methane	350	U	84-74-2	Di-n-Butylphthalate	~~350~~	~~U~~ 35
120-83-2	2,4-Dichlorophenol	350	U	206-44-0	Fluoranthene	540	
120-82-1	1,2,4-Trichlorobenzene	350	U	129-00-0	Pyrene	290	J
91-20-3	Naphthalene	350	U	85-68-7	Butylbenzylphthalate	350	U
106-47-8	4-Chloroaniline	350	U	91-94-1	3,3'-Dichlorobenzidine	700	U
87-68-3	Hexachlorobutadiene	350	U	56-55-3	Benzo(a)Anthracene	210	J
59-50-7	4-Chloro-3-Methylphenol	350	U	117-81-7	bis(2-Ethylhexyl)Phthalate	240	J
91-57-6	2-Methylnaphthalene	350	U	218-01-9	Chrysene	250	J
77-47-4	Hexachlorocyclopentadiene	350	U	117-84-0	Di-n-Octyl Phthalate	35	J
88-06-2	2,4,6-Trichlorophenol	350	U	205-99-2	Benzo(b)Fluoranthene	~~350~~	U
95-95-4	2,4,5-Trichlorophenol	1700	U	207-08-9	Benzo(k)Fluoranthene	410	
91-58-7	2-Chloronaphthalene	350	U	50-32-8	Benzo(a)Pyrene	150	J
88-74-4	2-Nitroaniline	1700	U	193-39-5	Indeno(1,2,3-cd)Pyrene	~~350~~	~~U~~
131-11-3	Dimethyl Phthalate	350	U	53-70-3	Dibenz(a,h)Anthracene	~~350~~	~~U~~ 81
208-96-8	Acenaphthylene	350	U	191-24-2	Benzo(g,h,i)Perylene	~~350~~	~~U~~
99-09-2	3-Nitroaniline	1700	U				

67 J

(1) - Cannot be separated from diphenylamine

Form I

Laboratory Name: PENCOTEC

Case No: 7795

Sample Number: ET434

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8-14-87

Date Analyzed: 8-24-87 9-2-87

Conc/Dil Factor: 3

Percent Moisture (decanted): 6

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	8.0	U
319-85-7	Beta-BHC	8.0	U
319-86-8	Delta-BHC	8.0	U
58-89-9	Gamma-BHC (Lindane)	8.0	U
76-44-8	Heptachlor	8.0	U
309-00-2	Aldrin	8.0	U
1024-57-3	Heptachlor Epoxide	8.0	U
959-98-8	Endosulfan I	8.0	U
60-57-1	Dieldrin	16	U
72-55-9	4,4'-DDE	24	U
72-20-8	Endrin	16	U
33213-65-9	Endosulfan II	16	U
72-54-8	4,4'-DDD	50 ~~40~~	~~U~~ SN 9/11/87
1031-07-8	Endosulfan Sulfate	16	U
50-29-3	4,4'-DDT	80	U
72-43-5	Methoxychlor	80	U
53494-70-5	Endrin Ketone	16	U
57-74-9	Chlordane	80	U
8001-35-2	Toxaphene	160	U
12674-11-2	Aroclor-1016	80	U
11104-28-2	Aroclor-1221	80	U
11141-16-5	Aroclor-1232	80	U
53469-21-9	Aroclor-1242	80	U
12672-29-6	Aroclor-1248	80	U
11097-69-1	Aroclor-1254	160	U
11096-82-5	Aroclor-1260	160	U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s ____ or W_s 30.1 V_t 20000 V_i 2.0

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Laboratory Name: ENCOTEC

Case No: 7795

Sample Number: ET434

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NA	NO VOLATILES FOUND	VOA	NA	NA
2.	NA	UNKNOWN	BNA	396	270 J
3.	3377-86-4	2-BROMO-HEXANE	BNA	418	240 J
4.	NA	UNKNOWN	BNA	998	230 J
5.	NA	UNKNOWN HYDROCARBON	BNA	1062	250 J
6.	NA	UNKNOWN HYDROCARBON	BNA	1100	290 J
7.	NA	UNKNOWN	BNA	1197	300 J
8.	NA	UNKNOWN HYDROCARBON	BNA	1243	290 J
9.	NA	UNKNOWN HYDROCARBON	BNA	1295	790 J
10.	NA	UNKNOWN HYDROCARBON	BNA	1385	370 J
11.	NA	UNKNOWN HYDROCARBON	BNA	1460	400 J
12.	NA	UNKNOWN HYDROCARBON	BNA	1540	540 J
13.	NA	UNKNOWN	BNA	1586	2900 J
14.	NA	UNKNOWN	BNA	1681	2800 J
15.	NA	UNKNOWN HYDROCARBON	BNA	1760	240 J
16.	NA	UNKNOWN HYDROCARBON	BNA	1827	290 J
17.	NA	UNKNOWN HYDROCARBON	BNA	1892	300 J
18.	NA	UNKNOWN HYDROCARBON	BNA	2015	560 J
19.	NA	UNKNOWN	BNA	2091	860 J
20.	NA	UNKNOWN HYDROCARBON	BNA	2237	480 J
21.	NA	UNKNOWN	BNA	2329	940 J
22.					
23.					
24.					
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27.					
28.					
29.					
30.					

ecology and environment

Sample Number
EN085

87FC14537

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ENCOTEC
Case No: 7795
Lab Sample ID No: EN085V
QC Report No: 1
Sample Matrix: SOIL
Contract No: 68-01-7275
Data Release Authorized By: C.M. Oli
Date Sample Received: 8/06/87

Volatile Compounds

Concentration: ~~Low~~ Medium (Circle One)
Date Extracted/Prepared: 8/13/87
Date Analyzed: 8/13/87
Conc/Dil Factor: 1 pH 7.2
Percent Moisture: (Not Decanted) ~~0~~ 9%
9/08/87

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	11u
74-83-9	Bromomethane	11u
75-01-4	Vinyl Chloride	11u
75-00-3	Chloroethane	11u
75-09-2	Methylene Chloride	11
67-64-1	Acetone	24
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	~~11u~~ 11u
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	~~11u~~ 11u
75-27-4	Bromodichloromethane	5u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5u
10061-02-6	Trans-1, 3-Dichloropropene	5u
79-01-6	Trichloroethene	5u
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-2	Benzene	5u
10061-01-5	cis-1, 3-Dichloropropene	5u
110-75-8	2-Chloroethylvinylether	~~5u~~ 11u
75-25-2	Bromoform	5u
108-10-1	4-Methyl-2-Pentanone	~~5u~~ 11u
591-78-6	2-Hexanone	~~5u~~ 11u
127-18-4	Tetrachloroethene	5u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5u
108-88-3	Toluene	5u
108-90-7	Chlorobenzene	5u
100-41-4	Ethylbenzene	5u
100-42-5	Styrene	5u
	Total Xylenes	5u

Midwest

Data Reporting Qualifiers

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

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 5 µg/l is calculated, report as 5J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other 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 data summary report.

00745

11/85

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Laboratory Name: ENCOTEC - AA
Case No: 7795

Sample Number
EN085

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 08/14/87
Date Analyzed: 09/04/87
Conc/Dil Factor: 1.
Percent Moisture: (Decanted) 9.0

GPC Cleanup ___ Yes _X_ No
Separatory Funnel Extraction ___ Yes
Continuous Liquid-Liquid Extraction ___ Yes

CAS Number		UG/KG		CAS Number		UG/KG	
108-95-2	Phenol	360	U	83-32-9	Acenaphthene	360	U
111-44-4	bis(2-Chloroethyl)Ether	360	U	51-28-5	2,4-Dinitrophenol	1800	U
95-57-8	2-Chlorophenol	360	U	100-02-7	4-Nitrophenol	1800	U
541-73-1	1,3-Dichlorobenzene	360	U	132-64-9	Dibenzofuran	360	U
106-46-7	1,4-Dichlorobenzene	360	U	121-14-2	2,4-Dinitrotoluene	360	U
100-51-6	Benzyl Alcohol	360	U	606-20-2	2,6-Dinitrotoluene	360	U
95-50-1	1,2-Dichlorobenzene	360	U	84-66-2	Diethylphthalate	360	U
95-48-7	2-Methylphenol	360	U	7005-72-3	4-Chlorophenyl-phenylether	360	U
39638-32-9	bis(2-Chloroisopropyl)Ether	360	U	86-73-7	Fluorene	360	U
106-44-5	4-Methylphenol	360	U	100-10-6	4-Nitroaniline	1800	U
621-64-7	N-Nitroso-Di-n-Propylamine	360	U	534-52-1	4,6-Dinitro-2-Methylphenol	1800	U
67-72-1	Hexachloroethane	360	U	86-30-6	N-Nitrosodiphenylamine (1)	360	U
98-95-3	Nitrobenzene	360	U	101-55-3	4-Bromophenyl-phenylether	360	U
78-59-1	Isophorone	360	U	118-74-1	Hexachlorobenzene	360	U
88-75-5	2-Nitrophenol	360	U	87-86-5	Pentachlorophenol	1800	U
105-67-9	2,4-Dimethylphenol	360	U	85-01-8	Phenanthrene	150	J
65-85-0	Benzoic Acid	1800	U	120-12-7	Anthracene	48	J
111-91-1	bis(2-Chloroethoxy)Methane	360	U	84-74-2	Di-n-Butylphthalate	360	U
120-83-2	2,4-Dichlorophenol	360	U	206-44-0	Fluoranthene	340	J
120-82-1	1,2,4-Trichlorobenzene	360	U	129-00-0	Pyrene	180	J
91-20-3	Naphthalene	360	U	85-68-7	Butylbenzylphthalate	360	U
106-47-8	4-Chloroaniline	360	U	91-94-1	3,3'-Dichlorobenzidine	730	U
87-68-3	Hexachlorobutadiene	360	U	56-55-3	Benzo(a)Anthracene	93	J
59-50-7	4-Chloro-3-Methylphenol	360	U	117-81-7	bis(2-Ethylhexyl)Phthalate	270	J
91-57-6	2-Methylnaphthalene	360	U	218-01-9	Chrysene	140	J
77-47-4	Hexachlorocyclopentadiene	360	U	117-84-0	Di-n-Octyl Phthalate	360	U
88-06-2	2,4,6-Trichlorophenol	360	U	205-99-2	Benzo(b)Fluoranthene	360	U
95-95-4	2,4,5-Trichlorophenol	1800	U	207-08-9	Benzo(k)Fluoranthene	270	J
91-58-7	2-Chloronaphthalene	360	U	50-32-8	Benzo(a)Pyrene	96	J
88-74-4	2-Nitroaniline	1800	U	193-39-5	Indeno(1,2,3-cd)Pyrene	360	U
131-11-3	Dimethyl Phthalate	360	U	53-70-3	Dibenz(a,h)Anthracene	360	U
208-96-8	Acenaphthylene	360	U	191-24-2	Benzo(g,h,i)Perylene	360	U
99-09-2	3-Nitroaniline	1800	U				

(1) - Cannot be separated from diphenylamine

Form I

Laboratory Name: ENCOTEC

Case No: 7795

Sample Number
EN085

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8-14-87

Date Analyzed: 8-24-87

Conc/Dil Factor: 30

Percent Moisture (decanted) 9

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	90	U
319-85-7	Beta-BHC	90	U
319-86-8	Delta-BHC	90	U
58-89-9	Gamma-BHC (Lindane)	90	U
76-44-8	Heptachlor	90	U
309-00-2	Aldrin	90	U
1024-57-3	Heptachlor Epoxide	90	U
959-98-8	Endosulfan I	90	U
60-57-1	Dieldrin	180	U
72-55-9	4, 4'-DDE	180	U
72-20-8	Endrin	180	U
33213-65-9	Endosulfan II	180	U
72-54-8	4, 4'-DDD	180	U
1031-07-8	Endosulfan Sulfate	180	U
50-29-3	4, 4'-DDT	180	U
72-43-5	Methoxychlor	900	U
53494-70-5	Endrin Ketone	180	U
57-74-9	Chlordane	900	U
8001-35-2	Toxaphene	3600	U
12674-11-2	Aroclor-1016	900	U
11104-28-2	Aroclor-1221	900	U
11141-16-5	Aroclor-1232	900	U
53469-21-9	Aroclor-1242	900	U
12672-29-6	Aroclor-1248	900	U
11097-69-1	Aroclor-1254	1800	U
11096-82-5	Aroclor-1260	15000	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s ____ or W_s 30.4 V_t 20000 V_i 2.0

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Laboratory Name: ENCOTEC

Case No: 7795

Sample Number: EN085

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NA	NO VOLATILES FOUND	VOA	NA	NA
2.	NA	UNKNOWN	BNA	401	280 J
3.	NA	UNKNOWN HYDROCARBON		1062	280
4.	NA	UNKNOWN HYDROCARBON		1100	310
5.	NA	UNKNOWN HYDROCARBON		1197	330
6.	NA	UNKNOWN HYDROCARBON		1243	290
7.	NA	UNKNOWN HYDROCARBON		1289	460
8.	NA	UNKNOWN HYDROCARBON		1295	800
9.	NA	UNKNOWN HYDROCARBON		1377	300
10.	NA	UNKNOWN HYDROCARBON		1385	520
11.	NA	UNKNOWN HYDROCARBON		1460	400
12.	NA	UNKNOWN		1586	2100
13.	NA	UNKNOWN HYDROCARBON		1760	310
14.	NA	UNKNOWN		1828	360
15.	NA	UNKNOWN HYDROCARBON		2015	600
16.	NA	UNKNOWN		2091	550
17.	NA	UNKNOWN HYDROCARBON		2237	610
18.	NA	UNKNOWN		2241	400
19.	NA	UNKNOWN		2328	1000
20.	NA	UNKNOWN		2346	300
21.	NA	UNKNOWN		2380	290
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

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Sample number: EN084

87PC14536

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ENCOTEC
Lab Sample ID No: EN084V
Sample Matrix: SOIL
Data Release Authorized By: G.M. [illegible]

Case No: 7795
QC Report No: 1
Contract No: 68-01-7275
Date Sample Received: 8/06/87

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 8/13/87
Date Analyzed: 8/13/87
Conc/Dil Factor: 1 pH: 7.2
Percent Moisture: (Not Decanted) 11 %

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	11u
74-83-9	Bromomethane	11u
75-01-4	Vinyl Chloride	11u
75-00-3	Chloroethane	11u
75-09-2	Methylene Chloride	~~156 (B)~~ 11J
67-64-1	Acetone	11u
75-15-0	Carbon Disulfide	6u
75-35-4	1,1-Dichloroethene	6u
75-34-3	1,1-Dichloroethane	6u
156-60-5	Trans-1,2-Dichloroethene	6u
67-66-3	Chloroform	6u
107-06-2	1,2-Dichloroethane	6u
78-93-3	2-Butanone	11u
71-55-6	1,1,1-Trichloroethane	6u
56-23-5	Carbon Tetrachloride	6u
108-05-4	Vinyl Acetate	11u
75-27-4	Bromodichloromethane	6u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	6u
10061-02-6	Trans-1,3-Dichloropropene	6u
79-01-6	Trichloroethene	6u
124-48-1	Dibromochloromethane	6u
79-00-5	1,1,2-Trichloroethane	6u
71-43-2	Benzene	6u
10061-01-5	cis-1,3-Dichloropropene	6u
110-75-8	2-Chloroethylvinylether	11u
75-25-2	Bromoform	6u
108-10-1	4-Methyl-2-Pentanone	11u
591-78-6	2-Hexanone	11u
127-18-4	Tetrachloroethene	6u
79-34-5	1,1,2,2-Tetrachloroethane	6u
108-88-3	Toluene	6u
108-90-7	Chlorobenzene	6u
100-41-4	Ethylbenzene	6u
100-42-5	Styrene	6u
	Total Xylenes	6u

M-7.

Data Reporting Qualifiers

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

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other 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 data summary report.

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Laboratory Name: ENCOTEC - AA
Case No: 7795

Sample Number
EN084

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 08/14/87
Date Analyzed: 09/04/87
Conc/Dil Factor: 1.
Percent Moisture: (Decanted) 11.0

GPC Cleanup ___ Yes X No
Separatory Funnel Extraction ___ Yes
Continuous Liquid-Liquid Extraction ___ Yes

CAS Number		UG/KG		CAS Number		UG/KG	
108-95-2	Phenol	370	U	83-32-9	Acenaphthene	370	U
111-44-4	bis(2-Chloroethyl)Ether	370	U	51-28-5	2,4-Dinitrophenol	1800	U
95-57-8	2-Chlorophenol	370	U	100-02-7	4-Nitrophenol	1800	U
541-73-1	1,3-Dichlorobenzene	370	U	132-64-9	Dibenzofuran	370	U
106-46-7	1,4-Dichlorobenzene	370	U	121-14-2	2,4-Dinitrotoluene	370	U
100-51-6	Benzyl Alcohol	370	U	606-20-2	2,6-Dinitrotoluene	370	U
95-50-1	1,2-Dichlorobenzene	370	U	84-66-2	Diethylphthalate	370	U
95-48-7	2-Methylphenol	370	U	7005-72-3	4-Chlorophenyl-phenylether	370	U
39638-32-9	bis(2-Chloroisopropyl)Ether	370	U	86-73-7	Fluorene	82	J
106-44-5	4-Methylphenol	370	U	100-10-6	4-Nitroaniline	1800	U
621-64-7	N-Nitroso-Di-n-Propylamine	370	U	534-52-1	4,6-Dinitro-2-Methylphenol	1800	U
67-72-1	Hexachloroethane	370	U	86-30-6	N-Nitrosodiphenylamine (1)	370	U
98-95-3	Nitrobenzene	370	U	101-55-3	4-Bromophenyl-phenylether	370	U
78-59-1	Isophorone	370	U	118-74-1	Hexachlorobenzene	370	U
88-75-5	2-Nitrophenol	370	U	87-86-5	Pentachlorophenol	1800	U
105-67-9	2,4-Dimethylphenol	370	U	85-01-8	Phenanthrene	710	
65-85-0	Benzoic Acid	1800	U	120-12-7	Anthracene	230	J
111-91-1	bis(2-Chloroethoxy)Methane	370	U	84-74-2	Di-n-Butylphthalate	370	U
120-83-2	2,4-Dichlorophenol	370	U	206-44-0	Fluoranthene	1500	
120-82-1	1,2,4-Trichlorobenzene	370	U	129-00-0	Pyrene	840	
91-20-3	Naphthalene	87	J	85-68-7	Butylbenzylphthalate	370	U
106-47-8	4-Chloroaniline	370	U	91-94-1	3,3'-Dichlorobenzidine	740	U
87-68-3	Hexachlorobutadiene	370	U	56-55-3	Benzo(a)Anthracene	410	
59-50-7	4-Chloro-3-Methylphenol	370	U	117-81-7	bis(2-Ethylhexyl)Phthalate	1300	
91-57-6	2-Methylnaphthalene	70	J	218-01-9	Chrysene	680	
77-47-4	Hexachlorocyclopentadiene	370	U	117-84-0	Di-n-Octyl Phthalate	370	U
88-06-2	2,4,6-Trichlorophenol	370	U	205-99-2	Benzo(b)Fluoranthene	370	U
95-95-4	2,4,5-Trichlorophenol	1800	U	207-08-9	Benzo(k)Fluoranthene	1400	
91-58-7	2-Chloronaphthalene	370	U	50-32-8	Benzo(a)Pyrene	420	
88-74-4	2-Nitroaniline	1800	U	193-39-5	Indeno(1,2,3-cd)Pyrene	370	U
131-11-3	Dimethyl Phthalate	370	U	53-70-3	Dibenz(a,h)Anthracene	~~370~~ U	574
208-96-8	Acenaphthylene	140	J	191-24-2	Benzo(g,h,i)Perylene	~~370~~ U	262
99-09-2	3-Nitroaniline	1800	U				

(1) - Cannot be separated from diphenylamine

Form I

Laboratory Name: ENCOTEC

Case No: 7795

Sample Number: EN084

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8-14-87

Date Analyzed: 8-24-87

Conc/(Dil Factor): 30

Percent Moisture (decanted): 11

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	90	U
319-85-7	Beta-BHC	90	U
319-86-8	Delta-BHC	90	U
58-89-9	Gamma-BHC (Lindane)	90	U
76-44-8	Heptachlor	90	U
309-00-2	Aldrin	90	U
1024-57-3	Heptachlor Epoxide	90	U
959-98-8	Endosulfan I	90	U
60-57-1	Dieldrin	180	U
72-55-9	4,4'-DDE	180	U
72-20-8	Endrin	180	U
33213-65-9	Endosulfan II	180	U
72-54-8	4,4'-DDD	540	U
1031-07-8	Endosulfan Sulfate	180	U
50-29-3	4,4'-DDT	360	U
72-43-5	Methoxychlor	900	U
53494-70-5	Endrin Ketone	180	U
57-74-9	Chlordane	900	U
8001-35-2	Toxaphene	180	U
12674-11-2	Aroclor-1016	900	U
11104-28-2	Aroclor-1221	900	U
11141-16-5	Aroclor-1232	900	U
53469-21-9	Aroclor-1242	900	U
12672-29-6	Aroclor-1248	900	U
11097-69-1	Aroclor-1254	~~3600~~	U
11096-82-5	Aroclor-1260	7700	

3600 D.L.

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.0 V_t 20,000 V_i 2.0

Laboratory Name: INCIL

Case No: 7795

Sample Number: EN084

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NA	NO VOLATILES FOUND	VOA	NA	NA
2.	NA	UNKNOWN	BNA	395	310 J
3.	NA	UNKNOWN		477	200
4.	NA	UNKNOWN HYDROCARBON		1294	410
5.	NA	UNKNOWN		1410	330
6.	832-71-3	3-METHYL PHENANTHRENE		1461	290
7.	NA	UNKNOWN		1515	470
8.	NA	UNKNOWN		1587	330
9.	NA	UNKNOWN		1661	460
10.	NA	UNKNOWN		1881	560
11.	NA	UNKNOWN		1945	650
12.	NA	UNKNOWN		1994	110
13.	NA	UNKNOWN		2019	770
14.	205-99-2	BENZ (E) ACEPHENANTHRYLENE		2073	1200
15.	NA	UNKNOWN		2143	1200
16.	NA	UNKNOWN		2183	1100
17.	NA	UNKNOWN		2230	690
18.	NA	UNKNOWN		2240	650
19.	NA	UNKNOWN		2336	4200
20.	NA	UNKNOWN		2352	1900
21.	NA	UNKNOWN		2386	1100
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

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111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663 9415
International Specialists in the Environment

COPY

CRL Receipt Date 9/29/87 FIT Receipt Date 10/27 Review Completed 11/2/87

TO: J. Carman

FROM: Zena Gold-Kaufman

SUBJECT: US Scrap

PAN: TL0102 CASE # 7795

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
#	Low Soil	# 8	Low Soil
	Low Water		Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status _____ Completed!!

_____ Incomplete, awaiting: _____

FIT Data Review Findings:

Check Data Sheets for Transcription Errors

✓ Compounds were detected in sample(s); see enclosed sheet.

Book No. _____ Page No. _____ Date Sampled 8/05/87

26U:001

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 10·23·87

SUBJECT: Review of Region V CLP Data Received for Review on 9-29-87

RECEIVED

FROM: Curtis Ross, Director (5SCRL) Central Regional Laboratory Jay Thakker

TO: Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME: US SCRAP SMO case No. 7795

EPA Data Set No. SF 4259 No. of Samples: 8 D.U./Activity Numbers Y905/C72100

CRL No. 87FC14S31-S38

SMO Traffic No. MEP396, MEP007-012, ME4475

CLP Laboratory: RMAL Hrs. Required for Review: 2

Following are our findings: This review covers 8 le soil samples analyzed for metals and cyanide.
Spike recoveries for Mn (44%), Se (154%), Ag (66%) are shown above. All Mn, Ag data estimated. All positive hit Se data a estimated. All Se data less than D are acceptable.
Limits of ±35% apply for soil duplic analysis. The RPD for Mg duplicate analysis is high (43%) All Mg data are estimated.
All other QC audits are acceptab

Ida Le

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

10.22

cc: Duane Geuder, Quality Assurance Officer, EPA Support Services
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

EPA FORM 1320-6 (Rev. 5/87)

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CHICAGO, ILLINOIS

CHEMICAL EVALUATION FORM

SITE NAME: US Scrap PAN# IL0102 DATE: 10/27/87

CASE # 7795 UNITS- mg/kg REVIEWER: ZGK

~~TOXI PERS~~	COMPOUND	CRDL	3-5x CRDL	MEP 396	007	008	009	010	011	012
	ALUMINUM									
	ANTIMONY									
	ARSENIC	2			14	11	11	29	11	9.4
	BARIUM									
	BERYLLIUM	1		[0.8]	[0.8]	[0.61]	[1.2]	[1]	[0.68]	[0.8]
	CADMIUM	1		7.2	8.1 ~~408~~	2.8	3.5	13	x	
	CHROMIUM	2		313	408 ~~[8.9]~~	380	411	626	25	22
	COBALT	10		[10]	[8.9] ~~160~~	[6.6]	~~85~~	[12]	[6.8]	[11]
	COPPER	5		202	160 ~~1020~~	114	85 ~~303~~	199	55	32
	LEAD	1		1460	1020	343	303 ~~46~~	2600	117	27
	MERCURY	.008		0.47	0.93	0.38		0.94	0.18	02
	NICKEL	8		64	56	32	46	60	29	33
	SELENIUM	2						3.2		
	SILVER J	2		[2.7]				[4.5]		
	THALLIUM									
	TIN	8		40	30	[20]		44		
	VANADIUM	10		34	36	56	68	36	[27]	[27]
	ZINC									
	CYANIDE	2			3.9			8.9		

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CHEMICAL EVALUATION FORM

SITE NAME: USScrap PAN# IL01R DATE:

CASE # 7795 UNITS- mg/kg REVIEWER:

TOX/ PERS	COMPOUND	CRDL	3-5xCRDL	475						
	ALUMINUM									
	ANTIMONY									
	ARSENIC			23						
	BARIUM									
	BERYLLIUM									
	CADMIUM									
	CHROMIUM			21						
	COBALT			[14]						
	COPPER			33						
	LEAD			18						
	MERCURY									
	NICKEL			33						
	SELENIUM									
	SILVER									
	THALLIUM									
	TIN									
	VANADIUM			[26]						
	ZINC									
	CYANIDE									

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U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison St. - Alexandria, VA 22314
703/557-2490 FTS: 8-557-2490

000001

Date 9-22-87

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COVER PAGE
INORGANIC ANALYSIS DATA PACKAGE

Lab Name ROCKY MOUNTAIN ANALYTICAL
SOW No. 784

Case No. 7795
QC Report No. 87179

Sample Numbers

EPA No.	Lab ID No.	EPA No.	Lab ID No.
MEP396D		MEU475	
MEP396		[MEP999]	
MEP396S			
MEP007			
MEP008			
MEP009			
MEP010			
MEP011			
MEP012			

Comments: 8 LOW SOILS FOR TOTAL METALS AND CYANIDE ANALYSIS
SERIAL DILUTION FOR SAMPLE MEP012 IS IDENTIFIED AS [MEP999]

ICP Interelement and background corrections applied? Yes X No ___
If yes, corrections applied before X or after ___ generation of raw data.

Footnotes:

NR - not required by contract at this time
Form I:
Value - If the result is a value greater than or equal to the instrument detection limit but less than the contract required detection limit, report the value in brackets (i.e., [10]). Indicate the method used with P (for ICP/Flame AA) or F (for furnace).
U - Indicates element was analyzed for but not detected. Report with the detection limit value (e.g., 10U).
E - Indicates a value estimated or not reported due to the presence of interference. Explanatory note included on cover page.
S - Indicates value determined by Method of Standard Addition.
R - Indicates spike sample recovery is not within control limits.
X - Indicates duplicate analysis is not within control limits.
+ - Indicates the correlation coefficient for method of standard addition is Less than 0.995
CV - Indicates Cold Vapor
AS - Indicates Automated Spectrophotometric

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NARRATIVE

RECEIVED OCT 27 1987

RMA QC# 87179

CASE/SAS# 7795

The matrix spike for As, Se, and Tl was added incorrectly during the initial prep. The matrix spike sample was reprepped and analyzed for these elements. The reprepped results are reported for As, Se, and Tl. The raw data is included in the raw data package.

LABORATORY SUPERVISOR

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000003

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison St. - Alexandria, VA 22314
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MEP396

RECEIVED OCT 27 1987

Date 9-22-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 7795
QC REPORT NO. 87179

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	10400	P	13.	MAGNESIUM	26600	P X
2.	ANTIMONY	14U	P	14.	MANGANESE	859	P XR
3.	ARSENIC	140	F	15.	MERCURY	0.47	CV
4.	BARIUM	792	P	16.	NICKEL	64	P
5.	BERYLLIUM	[0.8]	P	17.	POTASSIUM	[2420]	P
6.	CADMIUM	7.2	P	18.	SELENIUM	2.8U	F R
7.	CALCIUM	63400	P X	19.	SILVER	[2.7]	P R
8.	CHROMIUM	313	P	20.	SODIUM	612U	P
9.	COBALT	[10]	P	21.	THALLIUM	5.6U	F
10.	COPPER	202	P	22.	TIN	40	P
11.	IRON	36600	P	23.	VANADIUM	34	P
12.	LEAD	1460	P	24.	ZINC	737	P

Cyanide 0.56U AS Percent Solids (%) 89

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: Arsenic Value is reported at an additional 5X dilution

Lab Manager [illegible]

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

CASE/SAS # 7795 CONTRACTOR Oneatec

Instrument # 6C3	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	9/4/87 11:20														
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol															
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-Di-n-Propylamine															
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid															
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline															
Acenaphthene															
2,4-Dinitrophenol															
4-Nitrophenol															
Dibenzofuran															

AFFECTED SAMPLES:

ET434MS
ET434MSD
EN083

Reviewer Initials/Date M.F. 11/23/87

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

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
Page 2

CASE/SAS # 7795 CONTRACTOR Concote

Instrument # 003	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	9/4/87 11:20														
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline															
4,6-Dinitro-2-Methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene															
Benzo(k)Fluoranthene															
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene															
Dibenz(a,h)Anthracene															
Benzo(g,h,i) Perylene															

SEE PAGE 1 FOR AFFECTED SAMPLES.

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

Reviewer's Initials/Date: M.A. 11/23/87

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

CASE/SAS # 7795 CONTRACTOR Encotec

Instrument # 003	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	9/3/87 14:42														
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol															
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-Di-n-Propylamine															
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid															
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline															
Acenaphthene															
2,4-Dinitrophenol															
4-Nitrophenol															
Dibenzofuran															

AFFECTED SAMPLES:

EN078
EN080
EN081
EN082
EN003
EN084
EN085
ET434

Reviewer Initials/Date M.F. 11/23/87

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

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
Page 2

CASE/SAS # 7795 CONTRACTOR Concrete

Instrument # 003	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	9/3/87 14:47														
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline															
4,6-Dinitro-2-Methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene															
Benzo(k)Fluoranthene															
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene															
Dibenz(a,h)Anthracene															
Benzo(g,h,i) Perylene															

SEE PAGE 1 FOR AFFECTED SAMPLES.

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

Reviewer's Initials/Date: M.F. 11/23/87

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ENCOTEC

NARRATIVE

CASE 7795

Case 7795 was received by ENCOTEC on August 6, 1987 and consisted of eight (8) low soils for full organic HSL. A pair of matrix spikes brought the total billable samples under our Contract 68-01-7275 to ten (10).

The volatile analysis occurred without major difficulties. There were a couple of problems with chromatography. In most of the samples there was a water peak in the first five minutes of the chromatograph that was caused by a problem with our sample concentrator. This problem has since been corrected.

The samples were analyzed under one 5-way calibration. Quality Control/Quality Assurance was excellent. All surrogates and matrix spikes fell within both contract required limits and contract advisory limits. There were no detectable HSL compounds in the samples except for EN018. This particular sample had several dialkyl ketones and aromatic hydrocarbons. This sample also contained Tentatively Identified compounds.

The semivolatile fraction was analyzed with some difficulties. The difficulties were due to the fact that the samples contained many and various HSL compounds and Tentatively Identified compounds, Polychlorinated Biphenyls, Pesticides and large amounts of Hydrocarbons. Please see pesticide data for Method 608 confirmations by GC/MS and please see the enclosed spectra/library searches for those confirmations. In all cases except for sample EN085 all GC/MS confirmations followed pesticide results for compounds

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above GC/MS threshold limits. In this sample pesticide results proved positive for Arochlor 1260 but GC/MS could not confirm.

All Quality Assurance/Quality Control was excellent. All surrogates and matrix spike compounds fell within contract required and contract advisory limits. Most samples contain several early eluting volatile compounds. It is suspected that these compounds were solvent contaminants that were magnified by the concentration of the solvent. These compounds were reported as Tentatively Identified compounds regardless of this suspicion.

The pesticide analysis was performed with many and various problems. These problems occurred mainly due to interferences, con-interferences and the nature of the matrix. All pesticide analysis was performed using low level protocol.

In general, Quality Assurance/Quality Control was good. Two (2) DBC recoveries outliers were observed, with both being above contract advisory limits. Two other DBC recoveries were calculated from the capillary column due to interferences on the packed column. Two out of twelve matrix spike/duplicate recoveries were above limits. This was due to matrix and/or other compound interferences. EN018, EN080, EN081 and EN082 were positive for 4,4'-DDD, Technical Chlordane, Arochlor 1254 and Arochlor 1260. EN083 was positive for 4,4'-DDE, 4,4'-DDD, 4,4'-DDT, Technical Chlordane, Arochlor 1254 and Arochlor 1260. EN084 was positive for Arochlor 1260. EN085 was positive for Arochlor 1260. ET434, ET434 MS and ET434 MSD were positive for 4,4'-DDD.

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For samples containing both Arochlor 1254 and Arochlor 1260 there was co-interference. The Arochlor 1260 amounts were calculated using peaks that had minimal Arochlor 1254 contribution and then the amounts of Arochlor 1254 were calculated by difference. Peaks used in this quantitation scheme are marked on the chromatograms. When pesticides were also determined to be present, the Arochlor 1254 amounts were calculated using peaks with minimal Arochlor 1260 contribution. Arochlor 1260 was then calculated using peaks with minimal Arochlor 1254 contribution. The area of the peak where the suspected pesticide/PCB co-elution occurred was compared to the summed PCB areas and a determination as the presence of the pesticide was made using excess peak area above the PCB contribution. This was compared to the capillary column confirmation run to further justify the presence of the pesticide. If no excess area was found in the primary column chromatogram to justify the pesticide but the confirmation column chromatogram showed possible pesticides, the detection limits for that particular pesticide were adjusted to reflect the PCB or matrix interference.

One special note for the pesticide results should be mentioned. We have implemented a Nelson computer to help produce more clearly reportable data. This system, however, labels the time on the chromatogram and tables based on the time the data was stored, <u>not</u> when the run was performed. Therefore, we have needed to write the actual analysis time on the sheets.

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Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison St. - Alexandria, VA 22314
703/557-2490 FTS: 8-557-2490

EPA Sample No. MEP007

Date 9-22-87

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INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 7795
QC REPORT NO. 87179

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	8440	P	13.	MAGNESIUM	35600	P X
2.	ANTIMONY	14U	P	14.	MANGANESE	1940	P XR
3.	ARSENIC	14	F	15.	MERCURY	0.93	CV
4.	BARIUM	301	P	16.	NICKEL	56	P
5.	BERYLLIUM	[0.81]	P	17.	POTASSIUM	[1720]	P
6.	CADMIUM	8.1	P	18.	SELENIUM	2.8U	F R
7.	CALCIUM	84500	P X	19.	SILVER	2.3U	P R
8.	CHROMIUM	408	P	20.	SODIUM	619U	P
9.	COBALT	[8.9]	P	21.	THALLIUM	5.7U	F
10.	COPPER	160	P	22.	TIN	30	P
11.	IRON	30500	P	23.	VANADIUM	36	P
12.	LEAD	1020	P	24.	ZINC	885	P

Cyanide 3.9 AS Percent Solids (%) 88

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: ____

Lab Manager ____

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Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison St. - Alexandria, VA 22314
703/557-2490 FTS: 8-557-2490

EPA Sample No. mf8008

Date 9-22-87

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INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 7795
QC REPORT NO. 87179

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	ALUMINUM	5260	P	13.	MAGNESIUM	66400	P
2.	ANTIMONY	14U	P	14.	MANGANESE	6400	P
3.	ARSENIC	11	F	15.	MERCURY	0.38	CV
4.	BARIUM	203	P	16.	NICKEL	32	P
5.	BERYLLIUM	[0.61]	P	17.	POTASSIUM	[1030]	P
6.	CADMIUM	2.8	P	18.	SELENIUM	2.7U	F
7.	CALCIUM	147000	P	19.	SILVER	2.2U	P
8.	CHROMIUM	380	P	20.	SODIUM	599U	P
9.	COBALT	[6.6]	P	21.	THALLIUM	5.5U	F
10.	COPPER	114	P	22.	TIN	[20]	P
11.	IRON	39800	P	23.	VANADIUM	56	P
12.	LEAD	343	P	24.	ZINC	624	P

Cyanide 0.55U AS Percent Solids (%) 91

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footn explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

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Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison St. - Alexandria, VA 22314
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MEP009

Date 9-22-87

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INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 7795
QC REPORT NO. 87179

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	8790	P	13.	MAGNESIUM	47700	P X
2.	ANTIMONY	14U	P	14.	MANGANESE	7900	P XR
3.	ARSENIC	11	F	15.	MERCURY	0.11U	CV
4.	BARIUM	167	P	16.	NICKEL	46	P
5.	BERYLLIUM	[1.2]	P	17.	POTASSIUM	[1610]	P
6.	CADMIUM	3.5	P	18.	SELENIUM	2.9U	F R
7.	CALCIUM	119000	P X	19.	SILVER	2.3U	P R
8.	CHROMIUM	411	P	20.	SODIUM	626U	P
9.	COBALT	5.2U	P	21.	THALLIUM	5.7U	F
10.	COPPER	85	P	22.	TIN	13U	P
11.	IRON	49600	P	23.	VANADIUM	68	P
12.	LEAD	303	P	24.	ZINC	673	P

Cyanide 0.57U AS Percent Solids (%) 87

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

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Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison St. - Alexandria, VA 22314
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MEP010

Date 9-22-87

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INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 7795
QC REPORT NO. 871-79

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	13700	P	13.	MAGNESIUM	14600	P X
2.	ANTIMONY	15U	P	14.	MANGANESE	447	P XR
3.	ARSENIC	29 S	F	15.	MERCURY	0.94	CV
4.	BARIUM	1440	P	16.	NICKEL	60	P
5.	BERYLLIUM	[1]	P	17.	POTASSIUM	3200	P
6.	CADMIUM	13	P	18.	SELENIUM	3.2	F R
7.	CALCIUM	30000	P X	19.	SILVER	[4.5]	P R
8.	CHROMIUM	626	P	20.	SODIUM	665U	P
9.	COBALT	[12]	P	21.	THALLIUM	6.1U	F
10.	COPPER	199	P	22.	TIN	44	P
11.	IRON	40900	P	23.	VANADIUM	36	P
12.	LEAD	2600	P	24.	ZINC	1450	P

Cyanide 8.9 AS Percent Solids (%) 82

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: Arsenic value is determined by MSA

Lab Manager [illegible]

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Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison St. - Alexandria, VA 22314
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MEP011

Date 9-22-87

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INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 7795
QC REPORT NO. 87179

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	15500	P	13.	MAGNESIUM	16000	P X
2.	ANTIMONY	14U	P	14.	MANGANESE	530	P XR
3.	ARSENIC	11	F	15.	MERCURY	0.18	CV
4.	BARIUM	273	P	16.	NICKEL	29	P
5.	BERYLLIUM	[0.68]	P	17.	POTASSIUM	[2310]	P
6.	CADMIUM	2.3U	P	18.	SELENIUM	2.9U	F R
7.	CALCIUM	48400	P X	19.	SILVER	2.3U	P R
8.	CHROMIUM	25	P	20.	SODIUM	626U	P
9.	COBALT	[6.8]	P	21.	THALLIUM	5.7U	F
10.	COPPER	55	P	22.	TIN	13U	P
11.	IRON	25100	P	23.	VANADIUM	[27]	P
12.	LEAD	117	P	24.	ZINC	286	P

Cyanide 0.57U AS Percent Solids (%) 87

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

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Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison St. - Alexandria, VA 22314
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MEP012

Date 9-22-87

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INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 7795
QC REPORT NO. 87179

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	12500	P	13.	MAGNESIUM	25500	P X
2.	ANTIMONY	14U	P	14.	MANGANESE	417	P XR
3.	ARSENIC	9.4	F	15.	MERCURY	0.2	CV
4.	BARIUM	[65]	P	16.	NICKEL	33	P
5.	BERYLLIUM	[0.8]	P	17.	POTASSIUM	3110	P
6.	CADMIUM	2.2U	P	18.	SELENIUM	2.8U	F R
7.	CALCIUM	59500	P X	19.	SILVER	2.2U	P R
8.	CHROMIUM	22	P	20.	SODIUM	606U	P
9.	COBALT	[11]	P	21.	THALLIUM	5.6U	F
10.	COPPER	32	P	22.	TIN	12U	P
11.	IRON	24100	P	23.	VANADIUM	[27]	P
12.	LEAD	21 27	F P	24.	ZINC	92	P

Cyanide 0.56U AS Percent Solids (%) 90

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

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Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison St. - Alexandria, VA 22314
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MEU475

Date 9-22-87

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INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 7795
QC REPORT NO. 87179

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	11500	P	13.	MAGNESIUM	24000	P X
2.	ANTIMONY	14U	P	14.	MANGANESE	449	P XR
3.	ARSENIC	23 S	F	15.	MERCURY	0.11U	CV
4.	BARIUM	[68]	P	16.	NICKEL	33	P
5.	BERYLLIUM	[0.65]	P	17.	POTASSIUM	[2730]	P
6.	CADMIUM	2.2U	P	18.	SELENIUM	2.7U	F R
7.	CALCIUM	56100	P X	19.	SILVER	2.2U	P R
8.	CHROMIUM	21	P	20.	SODIUM	599U	P
9.	COBALT	[14]	P	21.	THALLIUM	5.5U	F
10.	COPPER	33	P	22.	TIN	12U	P
11.	IRON	22900	P	23.	VANADIUM	[26]	P
12.	LEAD	18	F	24.	ZINC	83	P

Cyanide 0.55U AS Percent Solids (%) 91

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: Arsenic value is determined by MSA

Lab Manager [illegible]

QC EXCEPTION SUMMARY REPORT

CASE # 7795
DATA SET # 4259
LAB Q.C.# 87179
DATE: 10.14.87

SITE US Scrap
LAB RMAL
REVIEWED BY [illegible]

MATRIX: SS
CONC. : 81

WATER SAMPLE SPK.
WATER SAMPLE DUP.
SOIL SAMPLE SPK.
SOIL SAMPLE DUP.

	OVERALL CASE QC									MATRIX SPECIFIC QC						SAMPLE SPECIFIC QC		FIELD QC			REGIONAL QC			OTHER/ COMMENTS
	Holding Time	Cal Blanks	Inst Calver	Contin. Calver	Prep Blk AQ	Prep Blk SOL	ICS %R	LCS % AQ	LCS % SOL	Sol Dup RPD	Sol Spk. %R	AQ Dup RPD	AQ Spk. %R	Ser Dilu AQ	Ser Dilu SOL	GFAA Dup	GFAA Spike	Blank	Dup RPD	Spike %R	Blind Blank	Blind Spike %R	Split Sample RPD	
Aluminum	-	--																						
Antimony																								
Arsenic																								
Barium																								
Beryllium																								
Cadmium																								
Calcium										29														
Chromium																								
Cobalt																								
Copper																								
Iron																								
Lead																								
Magnesium										43														
Manganese										25	44													
Mercury																								
Nickel																								
Potassium																								
Selenium											154													
Silver											66													
Sodium																								
Thallium																								
Tin																								
Vanadium																								
Zinc																								
Cyanide																								

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Form III

Q.C. Report No. 87179

BLANKS

LAB NAME ROCKY MOUNTAIN ANALYTICAL CASE NO. 7795

DATE 9-22-87 UNITS ug/L

Matrix SOIL

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2	
Metals:								
1. ALUMINUM	15U	15U	15U			15U		
2. ANTIMONY	25U	25U	25U			25U		
3. ARSENIC	10U	10U	10U	10U	10U	10U		
4. BARIUM	3U	3U	3U			3U		
5. BERYLLIUM	1U	1U	1U			1U		
6. CADMIUM	4U	4U	4U			4U		
7. CALCIUM	179U	179U	179U			179U		
8. CHROMIUM	4U	4U	4U			4U		
9. COBALT	9U	9U	9U			9U		
10. COPPER	6U	6U	6U			6U		
11. IRON	24U	24U	24U			24U		
12. LEAD	20U	20U	20U			20U		(P)
13. MAGNESIUM	153U	153U	153U			153U		
14. MANGANESE	4U	4U	4U			4U		
15. MERCURY	0.2U	0.2U	0.2U			0.2U		
16. NICKEL	8U	8U	8U			8U		
17. POTASSIUM	175U	175U	175U			175U		
18. SELENIUM	5U	5U	5U	5U		5U		
19. SILVER	4U	4U	4U			4U		
20. SODIUM	1090U	1090U	1090U			1090U		
21. THALLIUM	10U	10U	10U	10U	10U	10U		
22. TIN	22U	22U	22U			22U		
23. VANADIUM	7U	7U	7U			7U		
24. ZINC	3U	[4.5]	3U			3U		
Other:								
LEAD	5U	5U	5U			5U		(F)
Cyanide	10U	10U	10U	10U		10U		

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Form III

Q.C. Report No. 87179

BLANKS

LAB NAME ROCKY MOUNTAIN ANALYTICAL
DATE 9-22-87

CASE NO. 7795
UNITS ug/L

Matrix Soil

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. ALUMINUM							
2. ANTIMONY							
3. ARSENIC	10u	10u	10u			10u	
4. BARIUM							
5. BERYLLIUM							
6. CADMIUM							
7. CALCIUM							
8. CHROMIUM							
9. COBALT							
10. COPPER							
11. IRON							
12. LEAD							
13. MAGNESIUM							
14. MANGANESE							
15. MERCURY							
16. NICKEL							
17. POTASSIUM							
18. SELENIUM	5u	5u	5u			5u	
19. SILVER							
20. SODIUM							
21. THALLIUM	10u	10u				10u	
22. TIN							
23. VANADIUM							
24. ZINC							
Other:							
Cyanide							

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Form V

Q.C. Report No. 87179

SPIKE SAMPLE RECOVERY

LAB NAME ROCKY MOUNTAIN ANALYTICAL

DATE 9-22-87

CASE NO. 7795
EPA Sample No. MEP396
Lab Sample ID No. -
Units mg/kg

MATRIX SOIL

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Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R[1]	
Metals:						
1. ALUMINUM	75-125	9300	9240	NR		
2. ANTIMONY	75-125	255	12U	250	102	
3. ARSENIC	75-125	130	125	20	25	
4. BARIUM	75-125	1640	705	1000	94	
5. BERYLLIUM	75-125	24	[0.72]	25	93	
6. CADMIUM	75-125	30	6.4	25	94	
7. CALCIUM	75-125	63300	56500	NR		
8. CHROMIUM	75-125	380	279	100	101	
9. COBALT	75-125	245	[9.3]	250	94	
10. COPPER	75-125	301	180	125	97	
11. IRON	75-125	38000	32500	NR		
12. LEAD	75-125	1580	1300	250	112	CP
13. MAGNESIUM	75-125	28200	23600	NR		
14. MANGANESE	75-125	874	764	250	44	R
15. MERCURY	75-125	0.83	0.42	0.5	82	
16. NICKEL	75-125	297	57	250	96	
17. POTASSIUM	75-125	[2160]	[2150]	NR		
18. SELENIUM	75-125	7.7 S	2.5U	5	154	R
19. SILVER	75-125	19	[2.4]	25	66	R
20. SODIUM	75-125	545U	545U	NR		
21. THALLIUM	75-125	20	5U	25	80	
22. TIN	75-125	287	36	250	100	
23. VANADIUM	75-125	271	30	250	96	
24. ZINC	75-125	896	656	250	96	
Other:						
Lead		1400	1200	10	2000	CS
Cyanide	75-125	5.3	0.5U	5	106	

[1] %R = [(SSR - SR)/SA] x 100
"R"- out of control

Comments: Arsenic matrix spike Result is reported at additional 10X dilution & Sample Result at additional 5X. Selenium matrix spike Results determined by MSA. Lead by Furnace matrix spike & Sample Results are reported at additional 100X dilutions

The following elements reported unflagged due to sample concentration greater than 4 times the Spike Added value:
ARSENIC, Lead by Furnace

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Form VI

Q.C. Report No. 87179

DUPLICATES

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LAB NAME ROCKY MOUNTAIN ANALYTICAL

DATE 9-22-87

CASE NO. 7705
EPA Sample NO. MEP396
Lab Sample ID No. -
Units mg/kg

Matrix SOIL

Compound	Control Limit[1]	Sample(S)	Duplicate(D)	RPD[2]	
Metals:					
1. ALUMINUM		9240	7710	18	
2. ANTIMONY		12U	12U	NC	
3. ARSENIC		125	135	7.7	
4. BARIUM		705	596	17	
5. BERYLLIUM		[0.72]	0.5U	NC	
6. CADMIUM		6.4	5.9	8.1	
7. CALCIUM		56500	75700	29	X
8. CHROMIUM		279	240	15	
9. COBALT		[9.3]	[8]	NC	
10. COPPER		180	159	12	
11. IRON		32500	28000	15	
12. LEAD		1300	1100	17	(P)
13. MAGNESIUM		23600	36700	43	X
14. MANGANESE		764	593	25	X
15. MERCURY		0.42	0.38	10	
16. NICKEL		57	49	15	
17. POTASSIUM		[2150]	[1730]	NC	
18. SELENIUM		2.5U	2.5U	NC	
19. SILVER		[2.4]	2U	NC	
20. SODIUM		545U	545U	NC	
21. THALLIUM		5U	5U	NC	
22. TIN		36	34	5.7	
23. VANADIUM		30	[24]	NC	
24. ZINC		656	561	16	
Other: % Solids		89	89	0	
Lead		1200	1300	8	(F)
Cyanide		0.5U	0.5U	NC	

X Out of Control

[1] To be added at a later date.

[2] RPD = [|S-D|/((S+D)/2)] x 100

NC - Non calculable RPD due to value(s) less than CRDL

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Form VII

Q.C. Report No. 87179
INSTRUMENT DETECTION LIMITS AND
LABORATORY CONTROL SAMPLE

LAB NAME ROCKY MOUNTAIN ANALYTICAL
DATE 9-22-87

CASE NO 7795
UNITS ug/L

Compound	Required Detection Limits (CRDL)-ug/l	Instrument Detection Limits (IDL)-ug/l ICP/AA	Furnace	Lab Control Sample True	Found	%R	
Metals:							
1. ALUMINUM	200	15		1980	2010	102	
2. ANTIMONY	60	25		1010	1040	103	
3. ARSENIC	10	31	2	49	42	86	
4. BARIUM	200	3		1980	1920	97	
5. BERYLLIUM	5	1		481	488	101	
6. CADMIUM	5	4		489	464	95	
7. CALCIUM	5000	179		49800	50300	101	
8. CHROMIUM	10	4		506	496	98	
9. COBALT	50	9		474	489	103	
10. COPPER	25	6		542	542	100	
11. IRON	100	24		1990	2020	102	
12. LEAD	5	20	1	4510	4220	93	(P)
13. MAGNESIUM	5000	153		25000	24600	98	
14. MANGANESE	15	4		513	510	99	
15. MERCURY	0.2		0.2CV	1.0	0.9	90	
16. NICKEL	40	8		496	477	96	
17. POTASSIUM	5000	175		50200	49200	98	
18. SELENIUM	5		1	98	114	116	
19. SILVER	10	4		509	487	96	
20. SODIUM	5000	1090		50700	50600	100	
21. THALLIUM	10		1	97	80	82	
22. TIN	40	22		2000	2150	107	
23. VANADIUM	50	7		511	507	99	
24. ZINC	20	3		3100	2840	92	
Other:							
Lead				98	92	94	(F)
Cyanide	10		10AS	58	59	102	

CV - Cold Vapor
AS - Automated Spectrophotometric

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Form VII

Q.C. Report No. 87179
INSTRUMENT DETECTION LIMITS AND
LABORATORY CONTROL SAMPLE

LAB NAME ROCKY MOUNTAIN ANALYTICAL
DATE 9-22-87

CASE NO 7795
UNITS ug/L

Compound	Required Detection Limits (CRDL)-ug/l	Instrument Detection Limits (IDL)-ug/l ICP/AA	Furnace	Lab Control Sample True	Found	%R
Metals:						
1. ALUMINUM	200	15		1980		
2. ANTIMONY	60	25		1010		
3. ARSENIC	10	31	2	49	46	94
4. BARIUM	200	3		1980		
5. BERYLLIUM	5	1		481		
6. CADMIUM	5	4		489		
7. CALCIUM	5000	179		49800		
8. CHROMIUM	10	4		506		
9. COBALT	50	9		474		
10. COPPER	25	6		542		
11. IRON	100	24		1990		
12. LEAD	5	20	1	4510		
13. MAGNESIUM	5000	153		25000		
14. MANGANESE	15	4		513		
15. MERCURY	.2		0.2CV	1.0		
16. NICKEL	40	8		496		
17. POTASSIUM	5000	175		50200		
18. SELENIUM	5		1	98	102	104
19. SILVER	10	4		509		
20. SODIUM	5000	1090		50700		
21. THALLIUM	10		1	97	84	87
22. TIN	40	22		2000		
23. VANADIUM	50	7		511		
24. ZINC	20	3		3100		
Other:						
Cyanide	10		10AS			

CV - Cold Vapor
AS - Automated Spectrophotometric

Jeff
Carma N

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WEEKLY TIME REPORT

EMPLOYEE NUMBER 1547
SHEET NUMBER 1 OF 1

EMPLOYEE'S NAME Zena Gold-Kaufman WEEK ENDING 10/31/87

JOB NUMBER	PAN OR DESCRIPTION	S	M	T	W	T	F	S	TOTAL HOURS REG.	TOTAL HOURS O.T.	ACCOUNTING USE ONLY O.T. ADJ.	ACCOUNTING USE ONLY TOTAL
FT1305	F05Z026QAA		6	4	7	2	4		15	8		
FT1305	F05Z008QAA			2	1	3	3		9			
FT1305	F05Z0066AA		2	2		3	1		8			
FT1305	FMI0676SAQ		1						1			
FT1305	FOH0730SAQ		1						1			
FT1305	FMN0107SAQ			1					1			
FT1305	FIN0504SAQ			1					1			
FT1305	FMI0681SAQ				1				1			
FT1305	FIL0102VAQ				1				1			
FT1305	FIN0485SAQ					1			1			
FT1305	FMI0533SAQ					1			1			
XV 140	VACATION											
XH 140	HOLIDAY											
XS 150	SICK											
XX 000	COMP TIME TAKEN											
XO 160	OTHER*											
* Explain	TOTAL		10	10	10	10	8		40	8		

Zena Gold-Kaufman
EMPLOYEE SIGNATURE | APPROVED | DATA ENTRY | AUDIT

Sheet One (White): Buffalo Accounting
Sheet Two (Canary): Regional Copy

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111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
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CRL Receipt Date 11-24-87 FIT Receipt Date 2-16-88 Review Completed 2-22-88

TO: JEFF CARMAN
FROM: James Mertes
SUBJECT: U.S. SCRAP
PAN: FL0102VA (1 hour charged for review) Case # 8254

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
# 3	Low Soil	#	Low Soil
	Low Water		Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status X Completed!!

_____ Incomplete, awaiting _____

FIT Data Review Findings:

- Note Reviewer summary
- TIC's
- PESTICIDES IN EN788
- Common lab artifacts in all samples.

Check Data Sheets for Transcription Errors

X Compounds were detected in sample(s); see enclosed sheet.

Book No. 7 Page No. 55 Date Sampled 10-14/15-87

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U.S. SCRAP

8254

COMPOUND	SAMPLE	EN 786	EN 787	EN 788							
	QTC.	PPB									
chloromethane											
bromomethane											
vinyl chloride											
chloroethane											
methylene chloride		11 J	7 J								
acetone				5 J							
carbon disulfide											
1,1-dichloroethene											
1,1-dichloroethane											
trans-1,2,-dichloroethene											
chloroform				.5 J							
1,2-dichloroethane											
2-butanone											
1,1,1-trichloroethane											
carbon tetrachloride											
vinyl acetate											
bromodichloromethane											
1,1,2,2-tetrachloroethane											
1,2-dichloropropane											
trans-1,3-dichloropropene											
trichloroethene											
dibromochloromethane											
1,1,2-trichloroethane											
benzene											
cis-1,3-dichloropropene											
2-chloroethylvinylether											
bromoform											
2-hexanone											
4-methyl-2-pentanone											
tetrachloroethene											
toluene		17 J	32 J	8 J							
chlorobenzene											
ethylbenzene											
styrene											
total xylenes											
N-nitrosodimethylamine											
phenol											
aniline											
bis(2-chloroethyl)ether											
2-chlorophenol											
1,3-dichlorobenzene											
1,4-dichlorobenzene											
benzyl alcohol											
1,2-dichlorobenzene											
2-methylphenol											
bis(2-chloroisopropyl)ether											
4-methylphenol											
N-nitroso-di-n-propylamine											
hexachloroethane											
nitrobenzene											
isophrone											
2-nitrophenol											
2,4-dimethylphenol											
benzoic acid											
bis(2-chloroethoxy)methane											
2,4-dichlorophenol											
1,2,4-trichlorobenzene											
napthalene											
4-chloroaniline											
hexachlorobutadiene											
4-chloro-3-methylphenol											
2-methylnapthalene											
hexachlorocyclopentadiene											
2,4,6-trichlorophenol											
2,4,5-trichlorophenol											
2-chloronaphthalene											
2-nitroaniline											
dimethyl phthalate											
acenapthylene											
3-nitroaniline											
acenaphthene											
2,4-dinitrophenol											
4-nitrophenol											
dibenzofuran											
2,4-dinitrotoluene											
2,6-dinitrotoluene											
diethylphthalate											
4-chlorophenyl-phenylether											
fluorene											
4-nitroaniline											
4,6-dinitro-2-methylphenol											
N-nitrosodiphenylamine											
4-bromophenyl-phenylether											

U.S. SCRAP

8254

COMPOUND	SAMPLE	EN 786	EN 787	EN 788	788RE
	OTC	PPS			
pentachlorophenol					
phenanthrene				260 J	
anthracene					
di-n-butylphthalate					
fluoranthene					
benzidine					
pyrene					
butylbenzylphthalate					
3,3'-dichlorobenzidine					
benzo(a)anthracene					
bis(2-ethylhexyl)phthalate		250 J	120 J	390 J	
chrysene					
di-n-octylphthalate			120 J		
benzo(b&k)fluoranthene					
benzo(a)pyrene					
indeno(1,2,3-cd)pyrene					
dibenzo(a,h)anthracene					
benzo(g,h,i)perylene					
alpha-BHC					
beta-BHC					
delta-BHC					
gamma-BHC(lindane)					
heptachlor					
aldrin					
heptachlor epoxide					
endosulfan I					
dieldrin					
4,4'-DDE					
endrin					
endosulfan II					
4,4'-DDD					
endrin aldehyde					
endosulfan sulfate					
4,4'-DDT					
methoxychlor					
endrin ketone					
chlordane					
toxaphene					
Aroclor-1016					
Aroclor-1221					
Aroclor-1232					
Aroclor-1242					
Aroclor-1248					
Aroclor-1254					
Aroclor-1260					
ELEMENT					
aluminum					
antimony					
arsenic					
barium					
beryllium					
cadmium					
calcium					
chromium					
cobalt					
copper					
iron					
lead					
magnesium					
manganese					
mercury					
nickel					
potassium					
selenium					
silver					
sodium					
thallium					
tin					
vanadium					
zinc					
cyanide CHECK IF ANALYZED ( )					
TENTATIVELY IDENTIFIED ORGANICS					

PEST.

D.L = 41

76 43

66 99

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2/16/88
5 pages

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 2/8/88

SUBJECT: Review of Region V CLP Data
Received for Review on 11-24-87

FROM: Curtis Ross, Director (5SCRL) Patrick J. Vinnilla for
Central Regional Laboratory

TO: Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME: U.S. SCRAP SMO Case No. 8254

EPA Data Set No. SF 4528 No. of Samples: 3 D.U./Activity Numbers Y905/C72100

CRL No. 88FC03S28 - S30

SMO Traffic No. EN786 - 788

CLP Laboratory: American Analytical Technical Services Hrs. Required for Review: 12

Following are our findings:

3 samples, EN786, 787 and 788, were analyzed as low level soil for volatiles, semivolatiles and pesticides. EN 787 was reanalyzed for volatiles and EN 788 was reanalyzed for surrogate recoveries.
All samples were received in good order.

( ) Data are acceptable for use.
(✓) Data are acceptable for use with qualifications referenced above. See Data Qualifier sheets and Calibration Outlier forms for flags and additional comments.
( ) Data are preliminary - pending verification by Contractor Laboratory. See Case Summary above.
( ) Data are unacceptable.

cc: Carla Dempsey, CLP Quality Assurance Officer, Analytical Operations Branch
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

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DATA QUALIFIERS

Contractor: AATS

Case 8254

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

1. Holding Times:

The quantitation limits of the semivolatiles and pesticides for the 3 samples were estimated (UJ) and the positive results were estimated (J), due to holding time exceeding by 3 and 4 days. Also, this data was annotated on Form I SVO and Pest.

2. GC/MS Tuning and GC Instrument Performance:

DFTPP and DFB % ion abundance have met the criteria for GC/MS tuning.

GC instrument performance was acceptable in accordance with given criteria.

3. Calibration:

In initial calibration of the low level soil, the volatile and semivolatile SPCC and CCC were within specification of RF and %RSD QC limits. The HSL compounds outside the limits are recorded on the Outlier Forms included in this narrative.

In continuing calibration of the low level soil, the volatile and semivolatile SPCC and CCC were within given limit in RF50 and %D. The HSL compound outliers are recorded in the Outlier Forms in this narrative.

4. Blanks:

Volatile method blank had detectable levels of methylene chloride, acetone, chloroform and toluene. These compounds were also noted in all associated volatile samples, but at levels less than 10X the blank level. The OADS (Form I) has been flagged "UJ,"

Reviewed by: [signature]

Phone: (310) 352-2960

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DATA QUALIFIERS

Contractor: AATS

Case 8254

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

estimated detection limit, for not detected compound and "J", estimated, for positive results at level indicated for this parameter.

In the semivolatile blank, there were no contaminants found. However, an unknown compound was detected and identified as hexadecanoic acid. Bis (2-ethylhexyl) phthalate, di-n-butyl phthalate, and phenanthrene were detected in either/or samples EN 786, 787 and 788. All parameters for these compounds have been flagged appropriately.

The Pest/PCB blank had detectable levels of endosulfan I, heptachlor, heptachlor epoxide and endosulfan sulfate which have been flagged appropriately on Form I. In sample EN 786, delta-BHC and DDD were detected. Sample EN 788 had detectable levels of the 2 compounds in EN 786 plus aldrin, DDE, endosulfan II, DDT and endrin. All parameters have been flagged appropriately.

However, the above semivolatile and pesticide results of the associated samples were reflagged "UJ" and "J" due to sample holding times having exceeded the required limit and was so annotated on their respective Form I.

5. Surrogate Recoveries:

The volatiles in the low level soil samples, EN 786 and its MS/MSD, 787, 788 and 788 RE, toluene was out of the QC parameter. EN 786 and its MS/MSD were not repeated due to matrix effect.

The semivolatiles in the low level soil samples, all 3 samples, surrogate blank and EN 786 MS/MSD were within the given QC parameter.

Reviewed by: Terry M. Yamauchi

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DATA QUALIFIERS

Contractor: AATS

Case 8254

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

The Pest/PCB in the low level soil samples, DEC was within the QC parameter of all the samples and blanks.

6. MS/MSD:

The MS and MSD of the low level soil IEN786, there was over the MS and MSD % recovery in the volatile fraction. All other compounds were within the QC limits. Aldrin in the Pest/PCB was under the MS/MSD % Rec. For semivolatiles, 2,4-dinitrotoluene was under the MS and MSD % Rec.

7. Detailed Case Specific Problems:

The problems identified will not directly effect the quality and soundness of the data for the most part. Therefore the reviewer finds the data contained within to be acceptable for use.

Reviewed by: [signature]

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE/SAS # 8254 CONTRACTOR HATS

Instrument # 7002.D	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	10/18,19/87			10/19/87 17:48											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane															
Bromomethane															
Vinyl Chloride															
Chloroethane	.98	34.6	J												
Methylene Chloride															
Acetone															
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone															
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate	.62	34.4	J	.79	28.3	J									
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform															
4-Methyl-2-Pentanone															
2-Hexanone															
Tetrachloroethene															
1,1,2,2-Tetrachloroethane	.81	51.6	J	1.13	40.4	J									
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

V STD 50
V BLK
EN 786
EN 786 MS
EN 786 MSD
EN 787
EN 788
EN 789 RE
EN 788 RE

Reviewer's Initials/Date: T.G. 1/5/88

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

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V

CALIBRATION OUTLIERS

SEMIVOLATILE HSL COMPOUNDS

(Page 1)

CASE/SAS # 8254 CONTRACTOR AATS

Instrument # A7	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	11/5/87			11/13/87 9:07											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol				.94	34.8	J									
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-Di-n-Propylamine															
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol				.19	34.8	J									
Benzoic Acid	.05	32.6	J												
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline	.07	69.5	J	.045	36.2	RT									
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene				.30	42.7	J									
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline				.10	42.1	J									
Acenaphthene															
2,4-Dinitrophenol															
4-Nitrophenol				.20	34.6	J									
Dibenzofuran															

AFFECTED SAMPLES:

S STD 50
S STD 50
S Blk
EN 787
EN 788
EN 786
EN 786MS
EN 786MSD

Reviewer Initials/Date: Z.G. 1/5/88

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
Page 2

CASE/SAS # 8254 CONTRACTOR RATS

Instrument # R	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	4/5/87			11/13/87 9:07											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline	.04		R	.014	59.1	R									
4,6-Dinitro-2-Methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene															
Benzo(k)Fluoranthene															
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene															
Dibenz(a,h)Anthracene															
Benzo(g,h,i) Perylene															

SEE PAGE 1 FOR AFFECTED SAMPLES.

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

Reviewer's Initials/Date: Tf. 1/15/88

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8 CF 8

Case: 8254

Contractor: AATS

TENTATIVELY IDENTIFIED COMPOUNDS MATCH ASSESSMENT

NOTE: Reviewer should note directly on Organic Analysis Data Sheet (OADS) those matches that in his opinion (based on contract criteria) are unreasonable.

CRITERIA

(1) Relative intensities of major ions (>10%) reference spectrum should be present in the sample spectrum.

(2) Relative intensities of major ions in sample spectrum should agree to within ± 20% of reference spectrum intensities.

(3) Molecular ions present in reference spectrum should be present in sample spectrum.

(4) Ions present in sample spectrum, but not in reference spectrum should be reviewed for possible background contamination or presence of coeluting interferences.

(5) Ions present in reference spectrum, but not in the sample spectrum should be reviewed for possible subtraction from the sample spectrum because of background contamination or coeluting interferences.

(6) If, in the reviewer's opinion, no valid identification can be made the compound should be labelled as "unknown" and the initials and date of the reviewer placed on the OADS.

Terry N. Yamanoki

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American Analytical Technical Services
10926 East 55th Place / Tulsa, Oklahoma 74146 / (918)665-0680

CASE NARRATIVE

November 21, 1987

RECEIVED
NOV 23 1987
U.S. EPA, CENTRAL REGIONAL LAB.
536 S. CLARK STREET
CHICAGO, ILLINOIS 60605

CONTRACT NO.: 68-01-7392

CASE NO.: 8254

SAMPLE NO.: EN786 thru EN788

SDG NO.: EN786

---

1. The surrogate spiking solution, which was used for spiking all the samples, was analysed following the continuing calibration standard. The responses from this standard were used to calculate all the surrogate recoveries for the semi-volatile fraction.

2. D8-Toluene was outside QC limits for sample EN786, EN786MS and EN786MSD. This indicated a matrix effect. Hence, this sample was not reanalysed.

3. Sample EN787 was reanalysed for the volatile fraction because one of the surrogates was outside QC limits. The reanalysed sample met the surrogate recoveries criteria.

4. Sample EN788 and it's reanalysis did not meet surrogate recoveries criteria. The reanalysis for this sample is billable.

5. Due to the complex nature of the chromatographs, the internal standard areas were not within the required limits.

6. The matrix spike and matrix spike duplicate for the pesticide fraction contained a contaminant which eluted just before Aldrin. Aldrin was not detected due to this large peak, and therefore, does not appear in the report of Form III.

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"Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."

J. D. Shringarpure, Ph.D.
Program Manager

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2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
1	SBLK	88	90	83	84	85	81		0
2	EN787	84	96	130	82	74	73		0
3	EN788	75	96	95	83	68	79		0
4	EN786	82	90	98	72	75	75		0
5	EN786MS	82	100	104	81	74	93		0
6	EN786MSD	79	97	102	73	70	77		0
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			QC LIMITS
S1 (NBZ) =	CS20	NITROBENZENE-D5	(23-120)
S2 (FBP) =	CS25	2-FLUOROBIPHENYL	(30-115)
S3 (TPH) =	CS30	TERPHENYL-D14	(18-137)
S4 (PHL) =	CS45	PHENOL-D5	(24-113)
S5 (2FP) =	CS50	2-FLUOROPHENOL	(25-121)
S6 (TBP) =	CS55	2,4,6-TRIBROMOPH	(19-122)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

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2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (DBC)#	OTHER
1	PBLK	93	
2	EN786	80	
3	EN786MS	85	
4	EN786MSD	97	
5	EN787	88	
6	EN788	89	
7			
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S1 (DBC) = DIBUTYL CHLORENDATE ADVISORY QC LIMITS (20-150)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

FORM II PEST-2 1/87 Rev.

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3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

Matrix Spike - EPA Sample No.: EN786 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	60.	0.	52.	87.	59-172
TRICHLOROETHENE	60.	0.	47.	79.	62-137
BENZENE	60.	0.	70.	117.	66-142
TOLUENE	60.	17.	122.	176. *	59-139
CHLOROBENZENE	60.	0.	58.	98.	60-133

COMPOUND	SPIKE ADDED (UG/KG)	MSD CONCENTRATION (UG/KG)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-DICHLOROETHENE	60.	46.	77.	12.	22	59-172
TRICHLOROETHENE	60.	41.	70.	13.	24	62-137
BENZENE	60.	74.	123.	6.	21	66-142
TOLUENE	60.	123.	179. *	1.	21	59-139
CHLOROBENZENE	60.	62.	105.	7.	21	60-133

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

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 2 out of 10 outside limits

COMMENTS:

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3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

Matrix Spike - EPA Sample No.: EN786 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (UG/KG)	SAMPLE CONCENTRATION (UG/KG)	MS CONCENTRATION (UG/KG)	MS % REC #	QC LIMITS REC.
C315 PHENOL*	7592.	0.	5236.	69.	26- 90
C330 2-CHLOROPHENOL	7592.	0.	5891.	78.	25-102
C340 1,4-DICHLOROBENZE	3796.	0.	2347.	62.	28-104
C370 N-NITROSO-DI-N-PR	3796.	0.	2155.	57.	41-126
C445 1,2,4-TRICHLOROBE	3796.	0.	1836.	48.	38-107
C465 4-CHLORO-3-METHYL	7592.	0.	5718.	75.	26-103
C550 ACENAPTHENE*	3796.	0.	2198.	58.	31-137
C560 4-NITROPHENOL**	7592.	0.	2574.	34.	11-114
C570 2,4-DINITROTOLUEN	3796.	0.	814.	21. *	28- 89
C635 PENTACHLOROPHENOL	7592.	0.	3283.	43.	17-109
C715 PYRENE	3796.	0.	3636.	96.	35-142

COMPOUND	SPIKE ADDED (UG/KG)	MSD CONCENTRATION (UG/KG)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
C315 PHENOL*	7824.	5235.	67.	3.	35	26- 90
C330 2-CHLOROPHENOL	7824.	5944.	76.	2.	50	25-102
C340 1,4-DICHLOROBENZE	3912.	2373.	61.	2.	27	28-104
C370 N-NITROSO-DI-N-PR	3912.	2298.	59.	3.	38	41-126
C445 1,2,4-TRICHLOROBE	3912.	2033.	52.	7.	25	38-107
C465 4-CHLORO-3-METHYL	7824.	5395.	69.	9.	33	26-103
C550 ACENAPTHENE*	3912.	2235.	57.	1.	19	31-137
C560 4-NITROPHENOL**	7824.	2527.	32.	5.	50	11-114
C570 2,4-DINITROTOLUEN	3912.	871.	22. *	4.	47	28- 89
C635 PENTACHLOROPHENOL	7824.	2615.	33.	26.	47	17-109
C715 PYRENE	3912.	3939.	101.	5.	25	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: 2 out of 22 outside limits

COMMENTS:

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3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

Matrix Spike - EPA Sample No.: EN786 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (UG/KG)	SAMPLE CONCENTRATION (UG/KG)	MS CONCENTRATION (UG/KG)	MS % REC #	QC LIMITS REC.
GAMMA-BHC	30.37	.00	32.98	109.	46-127
HEPTACHLOR	30.37	.00	21.65	71.	35-130
ALDRIN	30.37	.00	.03	0. *	34-132
DIELDRIN	75.92	.00	61.39	81.	31-134
ENDRIN	75.92	.00	73.52	97.	42-139
4,4'-DDT	75.92	.00	63.17	83.	23-134

COMPOUND	SPIKE ADDED (UG/KG)	MSD CONCENTRATION (UG/KG)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
GAMMA-BHC	31.30	39.33	126.	15.	50	46-127
HEPTACHLOR	31.30	24.59	79.	10.	31	35-130
ALDRIN	31.30	.03	0. *	0.	43	34-132
DIELDRIN	78.24	70.08	90.	10.	38	31-134
ENDRIN	78.24	84.58	108.	11.	45	42-139
4,4'-DDT	78.24	73.49	94.	12.	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: 2 out of 12 outside limits

COMMENTS:

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4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

Lab File ID: 4654 Lab Sample ID:_____

Date Analyzed: 10/19/87 Time Analyzed: 15:27

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

Instrument ID: 7002D

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	EN786		4655	16:22
2	EN786MS		4656	17:00
3	EN786MSD		4657	17:39
4	EN787		4658	18:17
5	EN788		4659	18:56
6	EN787 RE		4664	22:09
7	EN788 RE		4665	22:48
8				
9				
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COMMENTS:

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK

Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 4654

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

% Moisture: not dec. 0. Date Analyzed: 10/19/87

Column: (pack/cap) PACK Dilution Factor: 1.0000

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	1.	J
67-64-1	ACETONE	3.	J
75-15-0	CARBON DISULFIDE	5.	U
75-35-4	1,1-DICHLOROETHENE	5.	U
75-34-3	1,1-DICHLOROETHANE	5.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	5.	U
67-66-3	CHLOROFORM	.8	J
107-06-2	1,2-DICHLOROETHANE	5.	U
78-93-3	2-BUTANONE	10.	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	U
56-23-5	CARBON TETRACHLORIDE	5.	U
108-05-4	VINYL ACETATE	10.	U
75-27-4	BROMODICHLOROMETHANE	5.	U
78-87-5	1,2-DICHLOROPROPANE	5.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	U
79-01-6	TRICHLOROETHENE	5.	U
124-48-1	DIBROMOCHLOROMETHANE	5.	U
79-00-5	1,1,2-TRICHLOROETHANE	5.	U
71-43-2	BENZENE	5.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	U
75-25-2	BROMOFORM	5.	U
108-10-1	4-METHYL-2-PENTANONE	10.	U
591-78-6	2-HEXANONE	10.	U
127-18-4	TETRACHLOROETHENE	5.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	U
108-88-3	TOLUENE	.6	J
108-90-7	CHLOROBENZENE	5.	U
100-41-4	ETHYLBENZENE	5.	U
100-42-5	STYRENE	5.	U
1330-20-7	XYLENES (TOTAL)	5.	U

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IE

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK

Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 4654

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

% Moisture: not dec. 0. Date Analyzed: 10/19/87

Column: (pack/cap) PACK Dilution Factor: 1.0000

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
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22.					
23.					
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27.					
28.					
29.					
30.					

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SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

Lab File ID: BLK1113 Lab Sample ID: _____

Date Extracted: 10/29/87 Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 11/13/87 Time Analyzed: 10:36

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

Instrument ID: A

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

	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	EN787		15292	11/13/87
2	EN788		15293	11/13/87
3	EN786		15197	11/13/87
4	EN786MS		15197MS	11/13/87
5	EN786MSD		15197MSD	11/13/87
6				
7				
8				
9				
10				
11				
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COMMENTS:

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 30. (g/mL) G Lab File ID: BLK1113

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

% Moisture: not dec. 0. dec. 0. Date Extracted: 10/29/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/13/87

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2-------C315	PHENOL*	330.	U
111-44-4-------C325	BIS(2 CHLOROETHYL)ETHE	330.	U
95-57-8-------C330	2-CHLOROPHENOL	330.	U
541-73-1-------C335	1,3-DICHLOROBENZENE	330.	U
106-46-7-------C340	1,4-DICHLOROBENZENE*	330.	U
100-51-6-------C345	BENZYL ALCOHOL	330.	U
95-50-1-------C350	1,2-DICHLOROBENZENE	330.	U
95-48-7-------C355	2-METHYLPHENOL	330.	U
108-60-1-------C360	BIS(2-CHLOROISOPROPYL)	330.	U
106-44-5-------C365	4-METHYLPHENOL	330.	U
621-64-7-------C370	N-NITROSO-DI-N-PROPYLA	330.	U
67-72-1-------C375	HEXACHLOROETHANE	330.	U
98-95-3-------C410	NITROBENZENE	330.	U
78-59-1-------C415	ISOPHORONE	330.	U
88-75-5-------C420	2-NITROPHENOL*	330.	U
105-67-9-------C425	2,4-DIMETHYLPHENOL	330.	U
65-85-0-------C430	BENZOIC ACID	1700.	U
111-91-1-------C435	BIS(2-CHLOROETHOXY)MET	330.	U
120-83-2-------C440	2,4-DICHLOROPHENOL*	330.	U
120-82-1-------C445	1,2,4-TRICHLOROBENZENE	330.	U
91-20-3-------C450	NAPHTHALENE	330.	U
106-47-8-------C455	4-CHLOROANILINE	330.	U
87-68-3-------C460	HEXACHLOROBUTADIENE*	330.	U
59-50-7-------C465	4-CHLORO-3-METHYLPHENO	330.	U
91-57-6-------C470	2-METHYLNAPTHALENE	330.	U
77-47-4-------C510	HEXACHLOROCYCLOPENTADI	330.	U
88-06-2-------C515	2,4,6-TRICHLOROPHENOL*	330.	U
95-95-4-------C520	2,4,5-TRICHLOROPHENOL	1700.	U
91-58-7-------C525	2-CHLORONAPHTHALENE	330.	U
88-74-4-------C530	2-NITROANILINE	1700.	U
131-11-3-------C535	DIMETHYL PHTHALATE	330.	U
208-96-8-------C540	ACENAPHTHYLENE	330.	U
606-20-2-------C543	2,6-DINITROTOLUENE	330.	U

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 30. (g/mL) G Lab File ID: BLK1113

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

% Moisture: not dec. 0. dec. 0. Date Extracted: 10/29/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/13/87

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2-------C545	3-NITROANILINE	330.	U
83-32-9-------C550	ACENAPTHENE*	330.	U
51-28-5-------C555	2,4-DINITROPHENOL**	1700.	U
100-02-7-------C560	4-NITROPHENOL**	1700.	U
132-64-9-------C565	DIBENZOFURAN	330.	U
121-14-2-------C570	2,4-DINITROTOLUENE	330.	U
84-66-2-------C580	DIETHYL PHTHALATE	330.	U
7005-72-3-------C585	4-CHLOROPHENYL PHENYL	330.	U
86-73-7-------C590	FLUORENE	330.	U
100-01-6-------C595	4-NITROANILINE	1700.	U
534-52-1-------C610	4,6-DINITRO-2-METHYLPH	1700.	U
86-30-6-------C615	N-NITROSODIPHENYLAMINE	330.	U
101-55-3-------C625	4-BROMOPHENYL PHENYL E	330.	U
118-74-1-------C630	HEXACHLOROBENZENE	330.	U
87-86-5-------C635	PENTACHLOROPHENOL*	1700.	U
85-01-8-------C640	PHENANTHRENE	330.	U
120-12-7-------C645	ANTHRACENE	330.	U
84-74-2-------C650	DI-N-BUTYL PHTHALATE	330.	U
206-44-0-------C655	FLUORANTHENE*	330.	U
129-00-0-------C715	PYRENE	330.	U
85-68-7-------C720	BUTYL BENZYL PHTHALATE	330.	U
91-94-1-------C725	3,3'-DICHLOROBENZIDINE	670.	U
56-55-3-------C730	BENZO(A)ANTHRACENE	330.	U
218-01-9-------C740	CHRYSENE	330.	U
117-81-7-------C745	BIS(2-ETHYLHEXYL)PHTHA	330.	U
117-84-0-------C760	DI-N-OCTYLPHTHALATE*	330.	U
205-99-2-------C765	BENZO(B)FLUORANTHENE	330.	U
207-08-9-------C770	BENZO(K)FLUORANTHENE	330.	U
50-32-8-------C775	BENZO(A)PYRENE*	330.	U
193-39-5-------C780	INDENO(1,2,3-CD)PYRENE	330.	U
53-70-3-------C785	DIBENZ(A,H)ANTHRACENE	330.	U
191-24-2-------C790	BENZO(G,H,I)PERYLENE	330.	U

(1) - Cannot be separated from diphenylamine

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 30. (g/mL) G Lab File ID: BLK1113

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

% Moisture: not dec. 0. dec. 0. Date Extracted: 10/29/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/13/87

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

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	G
1. - -	UNKNOWN COMPOUND	6.13	1000.	J
2. - -	UNKNOWN ALCOHOL	7.25	600.	J
3. 57-10-3	HEXADECANOIC ACID	18.83	200.	J
4. - -	UNKNOWN HYDROCARBON	25.25	900.	J
5.				
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30.				

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4C
PESTICIDE METHOD BLANK SUMMARY

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

Lab Sample ID: _____ Lab File ID:

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

Date Extracted: 10/29/87 Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed (1): 11/14/87 Date Analyzed (2): 11/14/87

Time Analyzed (1): 18:20 Time Analyzed (2): 18:20

Instrument ID (1): 5890A Instrument ID (2): 5890A

GC Column ID (1): MULTIPHA GC Column ID (2): MULTIPHA

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
1	EN786		11/14/87	11/14/87
2	EN786MS		11/14/87	11/14/87
3	EN786MSD		11/14/87	11/14/87
4	EN787		11/14/87	11/14/87
5	EN788		11/14/87	11/14/87
6				
7				
8				
9				
10				
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12				
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Comments:

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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 1029SB1

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

% Moisture: not dec. 0. dec. 0. Date Extracted: 10/29/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/14/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: .0125

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	ALPHA-BHC	16.	U
319-85-7	BETA-BHC	16.	U
319-86-8	DELTA-BHC	16.	U
58-89-9	GAMMA-BHC	16.	U
76-44-8	HEPTACHLOR	16.	U
309-00-2	ALDRIN	16.	U
1024-57-3	HEPTACHLOR EPOXIDE	16.	U
959-98-8	ENDOSULFAN I	.4	J
60-57-1	DIELDRIN	32.	U
72-55-9	4,4'-DDE	32.	U
72-20-8	ENDRIN	32.	U
33213-65-9	ENDOSULFAN II	32.	U
72-54-8	4,4'-DDD	32.	U
1031-07-8	ENDOSULFAN SULFATE	32.	U
50-29-3	4,4'-DDT	32.	U
72-43-5	METHOXYCHLOR	160.	U
53494-70-5	ENDRIN KETONE	32.	U
5103-71-9	ALPHA CHLORDANE	160.	U
5103-74-2	GAMMA CHLORDANE	160.	U
8001-35-2	TOXAPHENE	320.	U
12674-11-2	AROCLOR-1016	160.	U
11104-28-2	AROCLOR-1221	160.	U
11141-16-5	AROCLOR-1232	160.	U
53469-21-9	AROCLOR-1242	160.	U
12672-29-6	AROCLOR-1248	160.	U
11097-69-1	AROCLOR-1254	320.	U
11096-82-5	AROCLOR-1260	320.	U

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4C

PESTICIDE METHOD BLANK SUMMARY

b Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

Lab Sample ID: _____ Lab File ID:

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

Date Extracted: 10/29/87 Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed (1): 11/18/87 Date Analyzed (2): 11/18/87

Time Analyzed (1): 0:57 Time Analyzed (2): 1:59

Instrument ID (1): 5890B Instrument ID (2): 5890B

GC Column ID (1): DB-5 GC Column ID (2): DB-5

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
1	EN788		11/18/87	
2				
3				
4				
5				
6				
7				
8				
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24				
25				
26				

Comments:

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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 30. (g/mL) G Lab File ID: C1029B1

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

% Moisture: not dec. 0. dec. 0. Date Extracted: 10/29/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/18/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: .0125

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	ALPHA-BHC	16.	U
319-85-7	BETA-BHC	16.	U
319-86-8	DELTA-BHC	16.	U
58-89-9	GAMMA-BHC	16.	U
76-44-8	HEPTACHLOR	2.	JUJ
309-00-2	ALDRIN	16.	U
1024-57-3	HEPTACHLOR EPOXIDE	3.	JUJ
959-98-8	ENDOSULFAN I	16.	U
60-57-1	DIELDRIN	32.	U
72-55-9	4,4'-DDE	32.	U
72-20-8	ENDRIN	32.	U
33213-65-9	ENDOSULFAN II	32.	U
72-54-8	4,4'-DDD	32.	U
1031-07-8	ENDOSULFAN SULFATE	4.	JUJ
50-29-3	4,4'-DDT	32.	U
72-43-5	METHOXYCHLOR	160.	U
53494-70-5	ENDRIN KETONE	32.	U

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11/18/88 JU
T.Y.

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN786

Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 4655

Level: (low/med) LOW Date Received: 10/15/87

% Moisture: not dec. 16. Date Analyzed: 10/19/87

Column: (pack/cap) PACK Dilution Factor: 1.0000

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	11.	~~B~~ J
67-64-1	ACETONE	59.	~~B~~ UJ
75-15-0	CARBON DISULFIDE	6.	U
75-35-4	1,1-DICHLOROETHENE	6.	U
75-34-3	1,1-DICHLOROETHANE	6.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	6.	U
67-66-3	CHLOROFORM	6.	U
107-06-2	1,2-DICHLOROETHANE	6.	U
78-93-3	2-BUTANONE	12.	U
71-55-6	1,1,1-TRICHLOROETHANE	6.	U
56-23-5	CARBON TETRACHLORIDE	6.	U
108-05-4	VINYL ACETATE	12.	U
75-27-4	BROMODICHLOROMETHANE	6.	U
78-87-5	1,2-DICHLOROPROPANE	6.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	6.	U
79-01-6	TRICHLOROETHENE	6.	U
124-48-1	DIBROMOCHLOROMETHANE	6.	U
79-00-5	1,1,2-TRICHLOROETHANE	6.	U
71-43-2	BENZENE	6.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	6.	U
75-25-2	BROMOFORM	6.	U
108-10-1	4-METHYL-2-PENTANONE	12.	U
591-78-6	2-HEXANONE	12.	U
127-18-4	TETRACHLOROETHENE	6.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	6.	U
108-88-3	TOLUENE	17.	~~B~~ J
108-90-7	CHLOROBENZENE	6.	U
100-41-4	ETHYLBENZENE	6.	U
100-42-5	STYRENE	6.	U
1330-20-7	XYLENES (TOTAL)	6.	U

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN786

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 31. (g/mL) G Lab File ID: 15197

Level: (low/med) LOW Date Received: 10/15/87

% Moisture: not dec. 16. dec. 0. Date Extracted: 10/29/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/13/87

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	C315 PHENOL*	390.	U
111-44-4	C325 BIS(2 CHLOROETHYL)ETHE	390.	U
95-57-8	C330 2-CHLOROPHENOL	390.	U
541-73-1	C335 1,3-DICHLOROBENZENE	390.	U
106-46-7	C340 1,4-DICHLOROBENZENE*	390.	U
100-51-6	C345 BENZYL ALCOHOL	390.	U
95-50-1	C350 1,2-DICHLOROBENZENE	390.	U
95-48-7	C355 2-METHYLPHENOL	390.	U
108-60-1	C360 BIS(2-CHLOROISOPROPYL)	390.	U
106-44-5	C365 4-METHYLPHENOL	390.	U
621-64-7	C370 N-NITROSO-DI-N-PROPYLA	390.	U
67-72-1	C375 HEXACHLOROETHANE	390.	U
98-95-3	C410 NITROBENZENE	390.	U
78-59-1	C415 ISOPHORONE	390.	U
88-75-5	C420 2-NITROPHENOL*	390.	U
105-67-9	C425 2,4-DIMETHYLPHENOL	390.	U
65-85-0	C430 BENZOIC ACID	1900.	U
111-91-1	C435 BIS(2-CHLOROETHOXY)MET	390.	U
120-83-2	C440 2,4-DICHLOROPHENOL*	390.	U
120-82-1	C445 1,2,4-TRICHLOROBENZENE	390.	U
91-20-3	C450 NAPHTHALENE	390.	U
106-47-8	C455 4-CHLOROANILINE	390.	U
87-68-3	C460 HEXACHLOROBUTADIENE*	390.	U
59-50-7	C465 4-CHLORO-3-METHYLPHENO	390.	U
91-57-6	C470 2-METHYLNAPTHALENE	390.	U
77-47-4	C510 HEXACHLOROCYCLOPENTADI	390.	U
88-06-2	C515 2,4,6-TRICHLOROPHENOL*	390.	U
95-95-4	C520 2,4,5-TRICHLOROPHENOL	1900.	U
91-58-7	C525 2-CHLORONAPHTHALENE	390.	U
88-74-4	C530 2-NITROANILINE	1900.	U
131-11-3	C535 DIMETHYL PHTHALATE	390.	U
208-96-8	C540 ACENAPHTHYLENE	390.	U
606-20-2	C543 2,6-DINITROTOLUENE	390.	U

The sample quantitation limits are estimated (U-T)

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN786

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 31. (g/mL) G Lab File ID: 15197

Level: (low/med) LOW Date Received: 10/15/87

% Moisture: not dec. 16. dec. 0. Date Extracted: 10/29/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/13/87

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2-------C545	3-NITROANILINE	390.	U
83-32-9-------C550	ACENAPTHENE*	390.	U
51-28-5-------C555	2,4-DINITROPHENOL**	1900.	U
100-02-7-------C560	4-NITROPHENOL**	1900.	U
132-64-9-------C565	DIBENZOFURAN	390.	U
121-14-2-------C570	2,4-DINITROTOLUENE	390.	U
84-66-2-------C580	DIETHYL PHTHALATE	390.	U
7005-72-3-------C585	4-CHLOROPHENYL PHENYL	390.	U
86-73-7-------C590	FLUORENE	390.	U
100-01-6-------C595	4-NITROANILINE	1900.	U
534-52-1-------C610	4,6-DINITRO-2-METHYLPH	1900.	U
86-30-6-------C615	N-NITROSODIPHENYLAMINE	390.	U
101-55-3-------C625	4-BROMOPHENYL PHENYL E	390.	U
118-74-1-------C630	HEXACHLOROBENZENE	390.	U
87-86-5-------C635	PENTACHLOROPHENOL*	1900.	U
85-01-8-------C640	PHENANTHRENE	390.	U
120-12-7-------C645	ANTHRACENE	390.	U
84-74-2-------C650	DI-N-BUTYL PHTHALATE	390.	U
206-44-0-------C655	FLUORANTHENE*	390.	U
129-00-0-------C715	PYRENE	390.	U
85-68-7-------C720	BUTYL BENZYL PHTHALATE	390.	U
91-94-1-------C725	3,3'-DICHLOROBENZIDINE	780.	U
56-55-3-------C730	BENZO(A)ANTHRACENE	390.	U
218-01-9-------C740	CHRYSENE	390.	U
117-81-7-------C745	BIS(2-ETHYLHEXYL)PHTHA	250.	J
117-84-0-------C760	DI-N-OCTYLPHTHALATE*	390.	U
205-99-2-------C765	BENZO(B)FLUORANTHENE	390.	U
207-08-9-------C770	BENZO(K)FLUORANTHENE	390.	U
50-32-8-------C775	BENZO(A)PYRENE*	390.	U
193-39-5-------C780	INDENO(1,2,3-CD)PYRENE	390.	U
53-70-3-------C785	DIBENZ(A,H)ANTHRACENE	390.	U
191-24-2-------C790	BENZO(G,H,I)PERYLENE	390.	U

(1) - Cannot be separated from diphenylamine

The sample quantitation limits are estimated "UJ" and the positive results are estimated "J"

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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN786

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 31. (g/mL) G Lab File ID: 15197

Level: (low/med) LOW Date Received: 10/15/87

% Moisture: not dec. 16. dec. 16. Date Extracted: 10/29/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/14/87

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: .0125

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	ALPHA-BHC	19.	U
319-85-7	BETA-BHC	19.	U
319-86-8	DELTA-BHC	2.	JUJ
58-89-9	GAMMA-BHC	19.	U
76-44-8	HEPTACHLOR	19.	U
309-00-2	ALDRIN	19.	U
1024-57-3	HEPTACHLOR EPOXIDE	19.	U
959-98-8	ENDOSULFAN I	19.	U
60-57-1	DIELDRIN	37.	U
72-55-9	4,4'-DDE	37.	U
72-20-8	ENDRIN	37.	U
33213-65-9	ENDOSULFAN II	37.	U
72-54-8	4,4'-DDD	2.	JUJ
1031-07-8	ENDOSULFAN SULFATE	37.	U
50-29-3	4,4'-DDT	37.	U
72-43-5	METHOXYCHLOR	190.	U
53494-70-5	ENDRIN KETONE	37.	U
5103-71-9	ALPHA CHLORDANE	190.	U
5103-74-2	GAMMA CHLORDANE	190.	U
8001-35-2	TOXAPHENE	370.	U
12674-11-2	AROCLOR-1016	190.	U
11104-28-2	AROCLOR-1221	190.	U
11141-16-5	AROCLOR-1232	190.	U
53469-21-9	AROCLOR-1242	190.	U
12672-29-6	AROCLOR-1248	190.	U
11097-69-1	AROCLOR-1254	370.	U
11096-82-5	AROCLOR-1260	370.	U

The quantitation limits are estimated "UJ"

1/8/88 JUJ

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN786

Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 4655

Level: (low/med) LOW Date Received: 10/15/87

% Moisture: not dec. 16. Date Analyzed: 10/19/87

Column: (pack/cap) PACK Dilution Factor: 1.0000

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	20.20	6.	J
2.	- -	UNKNOWN	21.48	20.	J
3.	- -	UNKNOWN	21.94	10.	J
4.	- -	UNKNOWN	23.61	10.	J
5.	- -	UNKNOWN	25.86	8.	J
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recycled paper
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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN786

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 31. (g/mL) G Lab File ID: 15197

Level: (low/med) LOW Date Received: 10/15/87

% Moisture: not dec. 16. dec. 0. Date Extracted: 10/29/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/13/87

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.00

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN HYDROCARBON	4.12	300.	J
2.	- -	UNKNOWN COMPOUND	6.42	800.	J
3.	- -	UNKNOWN ALCOHOL	7.43	700.	J
4.	- -	UNKNOWN COMPOUND	11.23	200.	J
5.	62108-25-2	DECANE, 2,6,7-TRIMETHYL-	11.77	200.	J
6.	- -	UNKNOWN HYDROCARBON	12.10	700.	J
7.	- -	UNKNOWN HYDROCARBON	12.65	200.	J
8.	- -	UNKNOWN HYDROCARBON	13.30	800.	J
9.	- -	UNKNOWN HYDROCARBON	13.67	200.	J
10.	17301-25-6	UNDECANE, 2,8-DIMETHYL-	14.00	400.	J
11.	- -	UNKNOWN COMPOUND	14.08	300.	J
12.	17301-32-5	UNDECANE, 4,7-DIMETHYL-	14.42	600.	J
13.	- -	UNKNOWN HYDROCARBON	15.05	200.	J
14.	- -	UNKNOWN HYDROCARBON	15.47	400.	J
15.	- -	UNKNOWN HYDROCARBON	15.98	400.	J
16.	1921-70-6	PENTADECANE, 2,6,10,14-TETRA	16.55	1000.	J
17.	3891-98-3	DODECANE, 2,6,10-TRIMETHYL-	17.52	300.	J
18.	- -	UNKNOWN HYDROCARBON	18.33	300.	J
19.	- -	UNKNOWN ACID	18.90	300.	J
20.	- -	UNKNOWN HYDROCARBON	25.10	400.	J
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ecology and environment

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN787

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 4658

Level: (low/med) LOW Date Received: 10/16/87

% Moisture: not dec. 10. Date Analyzed: 10/19/87

Column: (pack/cap) PACK Dilution Factor: 1.0000

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	7.	~~B~~ J
67-64-1	ACETONE	260.	~~B~~ UJ
75-15-0	CARBON DISULFIDE	6.	U
75-35-4	1,1-DICHLOROETHENE	6.	U
75-34-3	1,1-DICHLOROETHANE	6.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	6.	U
67-66-3	CHLOROFORM	6.	U
107-06-2	1,2-DICHLOROETHANE	6.	U
78-93-3	2-BUTANONE	11.	U
71-55-6	1,1,1-TRICHLOROETHANE	6.	U
56-23-5	CARBON TETRACHLORIDE	6.	U
108-05-4	VINYL ACETATE	11.	U
75-27-4	BROMODICHLOROMETHANE	6.	U
78-87-5	1,2-DICHLOROPROPANE	6.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	6.	U
79-01-6	TRICHLOROETHENE	6.	U
124-48-1	DIBROMOCHLOROMETHANE	6.	U
79-00-5	1,1,2-TRICHLOROETHANE	6.	U
71-43-2	BENZENE	6.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	6.	U
75-25-2	BROMOFORM	6.	U
108-10-1	4-METHYL-2-PENTANONE	11.	U
591-78-6	2-HEXANONE	11.	U
127-18-4	TETRACHLOROETHENE	6.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	6.	U
108-88-3	TOLUENE	32.	~~B~~ J
108-90-7	CHLOROBENZENE	6.	U
100-41-4	ETHYLBENZENE	6.	U
100-42-5	STYRENE	6.	U
1330-20-7	XYLENES (TOTAL)	6.	U

[illegible] UJ.

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ecology and environment

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN787

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 31. (g/mL) G Lab File ID: 15292

Level: (low/med) LOW Date Received: ~~10/15/87~~ RU 10/16/87

% Moisture: not dec. 10. dec. 0. Date Extracted: 10/29/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/13/87

GPC Cleanup: (Y/N) N pH: 7.9 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2-------C315	PHENOL*	360.	U
111-44-4-------C325	BIS(2 CHLOROETHYL)ETHE	360.	U
95-57-8-------C330	2-CHLOROPHENOL	360.	U
541-73-1-------C335	1,3-DICHLOROBENZENE	360.	U
106-46-7-------C340	1,4-DICHLOROBENZENE*	360.	U
100-51-6-------C345	BENZYL ALCOHOL	360.	U
95-50-1-------C350	1,2-DICHLOROBENZENE	360.	U
95-48-7-------C355	2-METHYLPHENOL	360.	U
108-60-1-------C360	BIS(2-CHLOROISOPROPYL)	360.	U
106-44-5-------C365	4-METHYLPHENOL	360.	U
621-64-7-------C370	N-NITROSO-DI-N-PROPYLA	360.	U
67-72-1-------C375	HEXACHLOROETHANE	360.	U
98-95-3-------C410	NITROBENZENE	360.	U
78-59-1-------C415	ISOPHORONE	360.	U
88-75-5-------C420	2-NITROPHENOL*	360.	U
105-67-9-------C425	2,4-DIMETHYLPHENOL	360.	U
65-85-0-------C430	BENZOIC ACID	1800.	U
111-91-1-------C435	BIS(2-CHLOROETHOXY)MET	360.	U
120-83-2-------C440	2,4-DICHLOROPHENOL*	360.	U
120-82-1-------C445	1,2,4-TRICHLOROBENZENE	360.	U
91-20-3-------C450	NAPHTHALENE	360.	U
106-47-8-------C455	4-CHLOROANILINE	360.	U
87-68-3-------C460	HEXACHLOROBUTADIENE*	360.	U
59-50-7-------C465	4-CHLORO-3-METHYLPHENO	360.	U
91-57-6-------C470	2-METHYLNAPTHALENE	360.	U
77-47-4-------C510	HEXACHLOROCYCLOPENTADI	360.	U
88-06-2-------C515	2,4,6-TRICHLOROPHENOL*	360.	U
95-95-4-------C520	2,4,5-TRICHLOROPHENOL	1800.	U
91-58-7-------C525	2-CHLORONAPHTHALENE	360.	U
88-74-4-------C530	2-NITROANILINE	1800.	U
131-11-3-------C535	DIMETHYL PHTHALATE	360.	U
208-96-8-------C540	ACENAPHTHYLENE	360.	U
606-20-2-------C543	2,6-DINITROTOLUENE	360.	U

FORM I SV-1 Quantitation limits estimated 4/87 Rev
T.J. 1/29/88

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN787

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 31. (g/mL) G Lab File ID: 15292

Level: (low/med) LOW Date Received: ~~10/15/87~~ 10/16/87

% Moisture: not dec. 10 . dec. 0. Date Extracted: 10/29/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/13/87

GPC Cleanup: (Y/N) N pH: 7.9 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2 C545	3-NITROANILINE	360.	U
83-32-9 C550	ACENAPTHENE*	360.	U
51-28-5 C555	2,4-DINITROPHENOL**	1800.	U
100-02-7 C560	4-NITROPHENOL**	1800.	U
132-64-9 C565	DIBENZOFURAN	360.	U
121-14-2 C570	2,4-DINITROTOLUENE	360.	U
84-66-2 C580	DIETHYL PHTHALATE	360.	U
7005-72-3 C585	4-CHLOROPHENYL PHENYL	360.	U
86-73-7 C590	FLUORENE	360.	U
100-01-6 C595	4-NITROANILINE	1800.	U
534-52-1 C610	4,6-DINITRO-2-METHYLPH	1800.	U
86-30-6 C615	N-NITROSODIPHENYLAMINE	360.	U
101-55-3 C620	4-BROMOPHENYL PHENYL E	360.	U
118-74-1 C630	HEXACHLOROBENZENE	360.	U
87-86-5 C635	PENTACHLOROPHENOL*	1800.	U
85-01-8 C640	PHENANTHRENE	360.	U
120-12-7 C645	ANTHRACENE	360.	U
84-74-2 C650	DI-N-BUTYL PHTHALATE	360.	U
206-44-0 C655	FLUORANTHENE*	360.	U
129-00-0 C715	PYRENE	360.	U
85-68-7 C720	BUTYL BENZYL PHTHALATE	360.	U
91-94-1 C725	3,3'-DICHLOROBENZIDINE	730.	U
56-55-3 C730	BENZO(A)ANTHRACENE	360.	U
218-01-9 C740	CHRYSENE	360.	U
117-81-7 C745	BIS(2-ETHYLHEXYL)PHTHA	120.	J
117-84-0 C760	DI-N-OCTYLPHTHALATE*	120.	J
205-99-2 C765	BENZO(B)FLUORANTHENE	360.	U
207-08-9 C770	BENZO(K)FLUORANTHENE	360.	U
50-32-8 C775	BENZO(A)PYRENE*	360.	U
193-39-5 C780	INDENO(1,2,3-CD)PYRENE	360.	U
53-70-3 C785	DIBENZ(A,H)ANTHRACENE	360.	U
191-24-2 C790	BENZO(G,H,I)PERYLENE	360.	U

(1) - Cannot be separated from diphenylamine

Quantitation limits are estimated and positive results are estimated

FORM I SV-2 1787 Rev.

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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN787

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 31. (g/mL) G Lab File ID: 15292

Level: (low/med) LOW Date Received: ~~10/15/87~~ 10/16/87

% Moisture: not dec. 10. dec. 10. Date Extracted: 10/29/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/14/87

GPC Cleanup: (Y/N) N pH: 7.9 Dilution Factor: .0125

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	ALPHA-BHC	17.	U
319-85-7	BETA-BHC	17.	U
319-86-8	DELTA-BHC	17.	U
58-89-9	GAMMA-BHC	17.	U
76-44-8	HEPTACHLOR	17.	U
309-00-2	ALDRIN	17.	U
1024-57-3	HEPTACHLOR EPOXIDE	17.	U
959-98-8	ENDOSULFAN I	17.	U
60-57-1	DIELDRIN	35.	U
72-55-9	4,4'-DDE	35.	U
72-20-8	ENDRIN	35.	U
33213-65-9	ENDOSULFAN II	35.	U
72-54-8	4,4'-DDD	35.	U
1031-07-8	ENDOSULFAN SULFATE	35.	U
50-29-3	4,4'-DDT	35.	U
72-43-5	METHOXYCHLOR	170.	U
53494-70-5	ENDRIN KETONE	35.	U
5103-71-9	ALPHA CHLORDANE	170.	U
5103-74-2	GAMMA CHLORDANE	170.	U
8001-35-2	TOXAPHENE	350.	U
12674-11-2	AROCLOR-1016	170.	U
11104-28-2	AROCLOR-1221	170.	U
11141-16-5	AROCLOR-1232	170.	U
53469-21-9	AROCLOR-1242	170.	U
12672-29-6	AROCLOR-1248	170.	U
11097-69-1	AROCLOR-1254	350.	U
11096-82-5	AROCLOR-1260	350.	U

Quantitation limits are estimated M.J.
M.J. 1/29/88

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN787

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 31. (g/mL) G Lab File ID: 15292

Level: (low/med) LOW Date Received: 10/15/87

% Moisture: not dec. 10. dec. 0. Date Extracted: 10/29/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/13/87

GPC Cleanup: (Y/N) N pH: 7.9 Dilution Factor: 1.00

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN COMPOUND	6.10	900.	J
2.	- -	UNKNOWN HYDROCARBON	7.68	1000.	J
3.	- -	UNKNOWN HYDROCARBON	8.10	800.	J
4.	62108-23-0	DECANE, 2,5,6-TRIMETHYL-	9.35	2000.	J
5.	- -	UNKNOWN ALCOHOL	10.68	700.	J
6.	- -	UNKNOWN HYDROCARBON	10.80	1000.	J
7.	17301-23-4	UNDECANE, 2,6-DIMETHYL-	10.98	1000.	J
8.	- -	UNKNOWN HYDROCARBON	11.63	700.	J
9.	- -	UNKNOWN HYDROCARBON	12.10	2000.	J
10.	- -	UNKNOWN HYDROCARBON	12.65	600.	J
11.	- -	UNKNOWN HYDROCARBON	12.88	700.	J
12.	- -	UNKNOWN HYDROCARBON	13.30	3000.	J
13.	- -	UNKNOWN COMPOUND	13.72	700.	J
14.	- -	UNKNOWN HYDROCARBON	14.02	1000.	J
15.	- -	UNKNOWN HYDROCARBON	14.08	700.	J
16.	- -	UNKNOWN HYDROCARBON	14.42	2000.	J
17.	- -	UNKNOWN HYDROCARBON	15.02	700.	J
18.	- -	UNKNOWN HYDROCARBON	15.48	1000.	J
19.	54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	16.55	2000.	J
20.	629-78-7	HEPTADECANE	17.53	500.	J
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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN787

Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 4658

Level: (low/med) LOW Date Received: 10/16/87

% Moisture: not dec. 10. Date Analyzed: 10/19/87

Column: (pack/cap) PACK Dilution Factor: 1.0000

Number TICs found: 4 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	15.65	6.	J
2.	- -	UNKNOWN	21.38	8.	J
3.	- -	UNKNOWN	21.93	4.	J
4.	- -	UNKNOWN	25.84	8.	J
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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN787

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 31. (g/mL) G Lab File ID: 15292

Level: (low/med) LOW Date Received: ~~10/15/87~~ 10/16/87

% Moisture: not dec. 10. dec. 0. Date Extracted: 10/29/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/13/87

GPC Cleanup: (Y/N) N pH: 7.9 Dilution Factor: 1.00

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN COMPOUND	6.10	900.	J
2.	- -	UNKNOWN HYDROCARBON	7.68	1000.	J
3.	- -	UNKNOWN HYDROCARBON	8.10	800.	J
4.	62108-23-0	DECANE, 2,5,6-TRIMETHYL-	9.35	2000.	J
5.	- -	UNKNOWN ALCOHOL	10.68	700.	J
6.	- -	UNKNOWN HYDROCARBON	10.80	1000.	J
7.	17301-23-4	UNDECANE, 2,6-DIMETHYL-	10.98	1000.	J
8.	- -	UNKNOWN HYDROCARBON	11.63	700.	J
9.	- -	UNKNOWN HYDROCARBON	12.10	2000.	J
10.	- -	UNKNOWN HYDROCARBON	12.65	600.	J
11.	- -	UNKNOWN HYDROCARBON	12.88	700.	J
12.	- -	UNKNOWN HYDROCARBON	13.30	3000.	J
13.	- -	UNKNOWN COMPOUND	13.72	700.	J
14.	- -	UNKNOWN HYDROCARBON	14.02	1000.	J
15.	- -	UNKNOWN HYDROCARBON	14.08	700.	J
16.	- -	UNKNOWN HYDROCARBON	14.42	2000.	J
17.	- -	UNKNOWN HYDROCARBON	15.02	700.	J
18.	- -	UNKNOWN HYDROCARBON	15.48	1000.	J
19.	54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	16.55	2000.	J
20.	629-78-7	HEPTADECANE	17.53	500.	J
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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN787 RE

Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 4. (g/mL) G Lab File ID: 4664

Level: (low/med) LOW Date Received: 10/16/87

Moisture: not dec. 0. Date Analyzed: 10/19/87

Column: (pack/cap) PACK Dilution Factor: .8000

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EN788 RE

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 4665

Level: (low/med) LOW Date Received: 10/16/87

Moisture: not dec. 0. Date Analyzed: 10/19/87

Column: (pack/cap) PACK Dilution Factor: 1.0000

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	~~5.~~	~~U~~
67-64-1	ACETONE	5.	~~B~~ J
75-15-0	CARBON DISULFIDE	5.	U
75-35-4	1,1-DICHLOROETHENE	5.	U
75-34-3	1,1-DICHLOROETHANE	5.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	~~5.~~	~~U~~
67-66-3	CHLOROFORM	.5	~~B~~ J
107-06-2	1,2-DICHLOROETHANE	~~5.~~	~~U~~
78-93-3	2-BUTANONE	10.	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	U
56-23-5	CARBON TETRACHLORIDE	5.	U
108-05-4	VINYL ACETATE	10.	U
75-27-4	BROMODICHLOROMETHANE	5.	U
78-87-5	1,2-DICHLOROPROPANE	5.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	U
79-01-6	TRICHLOROETHENE	5.	U
124-48-1	DIBROMOCHLOROMETHANE	5.	U
79-00-5	1,1,2-TRICHLOROETHANE	5.	U
71-43-2	BENZENE	5.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	U
75-25-2	BROMOFORM	5.	U
108-10-1	4-METHYL-2-PENTANONE	10.	U
591-78-6	2-HEXANONE	10.	U
127-18-4	TETRACHLOROETHENE	5.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	~~5.~~	~~U~~
108-88-3	TOLUENE	8.	~~B~~ J
108-90-7	CHLOROBENZENE	~~5.~~	~~U~~
100-41-4	ETHYLBENZENE	5.	U
100-42-5	STYRENE	5.	U
1330-20-7	XYLENES (TOTAL)	5.	U

C-17

1/8/88 {J

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EN788

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 4659

Level: (low/med) LOW Date Received: 10/16/87

% Moisture: not dec. 0. Date Analyzed: 10/19/87

Column: (pack/cap) PACK Dilution Factor: 1.0000

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	5.	U
67-64-1	ACETONE	10.	U
75-15-0	CARBON DISULFIDE	5.	U
75-35-4	1,1-DICHLOROETHENE	5.	U
75-34-3	1,1-DICHLOROETHANE	5.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	5.	U
67-66-3	CHLOROFORM	5.	U
107-06-2	1,2-DICHLOROETHANE	5.	U
78-93-3	2-BUTANONE	10.	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	U
56-23-5	CARBON TETRACHLORIDE	5.	U
108-05-4	VINYL ACETATE	10.	U
75-27-4	BROMODICHLOROMETHANE	5.	U
78-87-5	1,2-DICHLOROPROPANE	5.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	U
79-01-6	TRICHLOROETHENE	5.	U
124-48-1	DIBROMOCHLOROMETHANE	5.	U
79-00-5	1,1,2-TRICHLOROETHANE	5.	U
71-43-2	BENZENE	5.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	U
75-25-2	BROMOFORM	5.	U
108-10-1	4-METHYL-2-PENTANONE	10.	U
591-78-6	2-HEXANONE	10.	U
127-18-4	TETRACHLOROETHENE	5.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	U
108-88-3	TOLUENE	5.	U
108-90-7	CHLOROBENZENE	5.	U
100-41-4	ETHYLBENZENE	5.	U
100-42-5	STYRENE	5.	U
1330-20-7	XYLENES (TOTAL)	5.	U

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN788

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 29. (g/mL) G Lab File ID: 15293

Level: (low/med) LOW Date Received: ~~10/15/87~~ 10/16/87

% Moisture: not dec. 20. dec. 0 Date Extracted: 10/29/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/13/87

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	C315 PHENOL*	430.	U
111-44-4	C325 BIS(2 CHLOROETHYL)ETHE	430.	U
95-57-8	C330 2-CHLOROPHENOL	430.	U
541-73-1	C335 1,3-DICHLOROBENZENE	430.	U
106-46-7	C340 1,4-DICHLOROBENZENE*	430.	U
100-51-6	C345 BENZYL ALCOHOL	430.	U
95-50-1	C350 1,2-DICHLOROBENZENE	430.	U
95-48-7	C355 2-METHYLPHENOL	430.	U
108-60-1	C360 BIS(2-CHLOROISOPROPYL)	430.	U
106-44-5	C365 4-METHYLPHENOL	430.	U
621-64-7	C370 N-NITROSO-DI-N-PROPYLA	430.	U
67-72-1	C375 HEXACHLOROETHANE	430.	U
98-95-3	C410 NITROBENZENE	430.	U
78-59-1	C415 ISOPHORONE	430.	U
88-75-5	C420 2-NITROPHENOL*	430.	U
105-67-9	C425 2,4-DIMETHYLPHENOL	430.	U
65-85-0	C430 BENZOIC ACID	2100.	U
111-91-1	C435 BIS(2-CHLOROETHOXY)MET	430.	U
120-83-2	C440 2,4-DICHLOROPHENOL*	430.	U
120-82-1	C445 1,2,4-TRICHLOROBENZENE	430.	U
91-20-3	C450 NAPHTHALENE	430.	U
106-47-8	C455 4-CHLOROANILINE	430.	U
87-68-3	C460 HEXACHLOROBUTADIENE*	430.	U
59-50-7	C465 4-CHLORO-3-METHYLPHENO	430.	U
91-57-6	C470 2-METHYLNAPTHALENE	430.	U
77-47-4	C510 HEXACHLOROCYCLOPENTADI	430.	U
88-06-2	C515 2,4,6-TRICHLOROPHENOL*	430.	U
95-95-4	C520 2,4,5-TRICHLOROPHENOL	2100.	U
91-58-7	C525 2-CHLORONAPHTHALENE	430.	U
88-74-4	C530 2-NITROANILINE	2100.	U
131-11-3	C535 DIMETHYL PHTHALATE	430.	U
208-96-8	C540 ACENAPHTHYLENE	430.	U
606-20-2	C543 2,6-DINITROTOLUENE	430.	U

Quantitation limits are estimated ext.
T.G. 1/29/88

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN788

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 29. (g/mL) G Lab File ID: 15293

Level: (low/med) LOW Date Received: ~~10/15/87~~ 10/16/87

% Moisture: not dec. 20. dec. 0. Date Extracted: 10/29/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/13/87

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2--------C545	3-NITROANILINE	430.	U
83-32-9--------C550	ACENAPTHENE*	430.	U
51-28-5--------C555	2,4-DINITROPHENOL**	2100.	U
100-02-7--------C560	4-NITROPHENOL**	2100.	U
132-64-9--------C565	DIBENZOFURAN	430.	U
121-14-2--------C570	2,4-DINITROTOLUENE	430.	U
84-66-2--------C580	DIETHYL PHTHALATE	430.	U
7005-72-3--------C585	4-CHLOROPHENYL PHENYL	430.	U
86-73-7--------C590	FLUORENE	430.	U
100-01-6--------C595	4-NITROANILINE	2100.	U
534-52-1--------C610	4,6-DINITRO-2-METHYLPH	2100.	U
86-30-6--------C615	N-NITROSODIPHENYLAMINE	430.	U
101-55-3--------C625	4-BROMOPHENYL PHENYL E	430.	U
118-74-1--------C630	HEXACHLOROBENZENE	430.	U
87-86-5--------C635	PENTACHLOROPHENOL*	2100.	U
85-01-8--------C640	PHENANTHRENE	200.	J
120-12-7--------C645	ANTHRACENE	430.	U
84-74-2--------C650	DI-N-BUTYL PHTHALATE	430.	U
206-44-0--------C655	FLUORANTHENE*	430.	U
129-00-0--------C715	PYRENE	430.	U
85-68-7--------C720	BUTYL BENZYL PHTHALATE	430.	U
91-94-1--------C725	3,3'-DICHLOROBENZIDINE	860.	U
56-55-3--------C730	BENZO(A)ANTHRACENE	430.	U
218-01-9--------C740	CHRYSENE	430.	U
117-81-7--------C745	BIS(2-ETHYLHEXYL)PHTHA	390.	J
117-84-0--------C760	DI-N-OCTYLPHTHALATE*	430.	U
205-99-2--------C765	BENZO(B)FLUORANTHENE	430.	U
207-08-9--------C770	BENZO(K)FLUORANTHENE	430.	U
50-32-8--------C775	BENZO(A)PYRENE*	430.	U
193-39-5--------C780	INDENO(1,2,3-CD)PYRENE	430.	U
53-70-3--------C785	DIBENZ(A,H)ANTHRACENE	430.	U
191-24-2--------C790	BENZO(G,H,I)PERYLENE	430.	U

(1) - Cannot be separated from diphenylamine

Quantitation limits are estimated UJ and the positive results are estimated

FORM I SV-2 1/87 Rev.

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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EN788

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 29. (g/mL) G Lab File ID: 15293

Level: (low/med) LOW Date Received: 10/15/87

% Moisture: not dec. 20. dec. 20. Date Extracted: 10/29/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/14/87

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: .0125

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	ALPHA-BHC	21.	U
319-85-7	BETA-BHC	21.	U
319-86-8	DELTA-BHC	5.	J UJ
58-89-9	GAMMA-BHC	21.	U
76-44-8	HEPTACHLOR	21.	U
309-00-2	ALDRIN	16.	J UJ
1024-57-3	HEPTACHLOR EPOXIDE	21.	U
959-98-8	ENDOSULFAN I	21.	U
60-57-1	DIELDRIN	41.	U
72-55-9	4,4'-DDE	32.	J UJ
72-20-8	ENDRIN	41.	U
33213-65-9	ENDOSULFAN II	9.	J UJ
72-54-8	4,4'-DDD	76.	
1031-07-8	ENDOSULFAN SULFATE	41.	U
50-29-3	4,4'-DDT	66.	
72-43-5	METHOXYCHLOR	210.	U
53494-70-5	ENDRIN KETONE	41.	U
5103-71-9	ALPHA CHLORDANE	210.	U
5103-74-2	GAMMA CHLORDANE	210.	U
8001-35-2	TOXAPHENE	410.	U
12674-11-2	AROCLOR-1016	210.	U
11104-28-2	AROCLOR-1221	210.	U
11141-16-5	AROCLOR-1232	210.	U
53469-21-9	AROCLOR-1242	210.	U
12672-29-6	AROCLOR-1248	210.	U
11097-69-1	AROCLOR-1254	410.	U
11096-82-5	AROCLOR-1260	410.	U

The quantitation limits are estimated.
1/19/88

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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EN788

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 29. (g/mL) G Lab File ID: C15293

Level: (low/med) LOW Date Received: ~~10/15/87~~ 10/16/87

% Moisture: not dec. 20. dec. 20. Date Extracted: 10/29/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/18/87

GPC Cleanup: (Y/N) N pH: 7.9 Dilution Factor: .0125

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	ALPHA-BHC	21.	U
319-85-7	BETA-BHC	21.	U
319-86-8	DELTA-BHC	21.	U
58-89-9	GAMMA-BHC	21.	U
76-44-8	HEPTACHLOR	21.	U
309-00-2	ALDRIN	21.	U
1024-57-3	HEPTACHLOR EPOXIDE	21.	U
959-98-8	ENDOSULFAN I	3.	~~J~~ UJ
60-57-1	DIELDRIN	~~41.~~	U
72-55-9	4,4'-DDE	43.	
72-20-8	ENDRIN	~~4.~~	J UJ
33213-65-9	ENDOSULFAN II	~~41.~~	U
72-54-8	4,4'-DDD	99.	
1031-07-8	ENDOSULFAN SULFATE	6.	~~BJ~~ UJ
50-29-3	4,4'-DDT	37.	J UJ
72-43-5	METHOXYCHLOR	210.	U
53494-70-5	ENDRIN KETONE	41.	U

FORM I PEST 1/87 Rev.

Quantitation limits estimated NJ
T.J. 1/8/88

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN788

Lab Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 29. (g/mL) G Lab File ID: 15293

Level: (low/med) LOW Date Received: ~~10/15/87~~ 10/16/87

% Moisture: not dec. 20. dec. 0. Date Extracted: 10/29/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/13/87

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.00

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN KETONE	6.13	900.	J
2.	- -	UNKNOWN ALCOHOL	7.25	600.	J
3.	- -	UNKNOWN HYDROCARBON	8.10	400.	J
4.	62108-23-0	DECANE, 2,5,6-TRIMETHYL-	9.33	800.	J
5.	- -	UNKNOWN COMPOUND	11.18	300.	J
6.	- -	UNKNOWN COMPOUND	11.30	200.	J
7.	- -	UNKNOWN HYDROCARBON	12.05	1000.	J
8.	- -	UNKNOWN COMPOUND	12.62	400.	J
9.	- -	UNKNOWN HYDROCARBON	13.25	1000.	J
10.	- -	UNKNOWN HYDROCARBON	13.58	400.	J
11.	- -	UNKNOWN HYDROCARBON	13.85	300.	J
12.	- -	UNKNOWN HYDROCARBON	13.97	700.	J
13.	- -	UNKNOWN HYDROCARBON	14.03	500.	J
14.	54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	14.38	1000.	J
15.	- -	UNKNOWN ACID	14.97	400.	J
16.	- -	UNKNOWN ALDEHYDE	15.23	400.	J
17.	- -	UNKNOWN HYDROCARBON	15.43	700.	J
18.	- -	UNKNOWN HYDROCARBON	16.52	2000.	J
19.	- -	UNKNOWN HYDROCARBON	17.50	500.	J
20.	- -	UNKNOWN HYDROCARBON	18.30	300.	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN788 RE

Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 4665

Level: (low/med) LOW Date Received: 10/16/87

% Moisture: not dec. 0. Date Analyzed: 10/19/87

Column: (pack/cap) PACK Dilution Factor: 1.0000

Number TICs found: 0

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

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

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN788

Name: AATS Contract: 68-01-7392

Lab Code: AATS Case No.: 8254 SAS No.: SDG No.: EN786

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 4659

Level: (low/med) LOW Date Received: 10/16/87

% Moisture: not dec. 0. Date Analyzed: 10/19/87

Column: (pack/cap) PACK Dilution Factor: 1.0000

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
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International Specialists in the Environment

CRL Receipt Date 10-29-87 FIT Receipt Date 12-22-87 Review Completed 12-28-87

TO: Jeff CARMAN

FROM: Jim Mertes

SUBJECT: U.S. SCRAP

PAN: IL0102 CASE # 8055

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
# 2	Low Soil + 1 low soil VOA only	#	Low Soil
	Low Water		Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status X Completed!! for This sampling date.

Incomplete, awaiting:

FIT Data Review Findings:

- HRS scorable hits of total xylenes in all 3 samples
- many HS contaminants at low concentrations
- TIC's
- Aroclor 1248 at low concentration in EP486, 488

Check Data Sheets for Transcription Errors

- EP487 only analyzed for VOA fraction of organics

X Compounds were detected in sample(s); see enclosed sheet.

Book No. 7 Page No. 17 Date Sampled 9-18-87

26U:001

1 hr charged to above PAN @ week ending 1-2-88

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U.S. SCRAP
Case # 8055

COMPOUND	SAMPLE DET. LIMIT	ppb EP486	EP487	EP488				
chloromethane								
bromomethane								
vinyl chloride								
chloroethane								
methylene chloride		34B	15 B	22 B				
acetone		101 B	280 B	140B				
carbon disulfide								
1,1-dichloroethene								
1,1-dichloroethane								
trans-1,2,-dichloroethene								
chloroform		19 JB	3JB	9B				
1,2-dichloroethane								
2-butanone		8 J						
1,1,1-trichloroethane								
carbon tetrachloride								
vinyl acetate								
bromodichloromethane								
1,1,2,2-tetrachloroethane								
1,2-dichloropropane								
trans-1,3-dichloropropene								
trichloroethene								
dibromochloromethane								
1,1,2-trichloroethane								
benzene		4 J						
cis-1,3-dichloropropene								
2-chloroethylvinylether								
bromoform								
2-hexanone								
4-methyl-2-pentanone								
tetrachloroethene		6 J	2 J	2 J				
toluene			11 B	23 B				
chlorobenzene								
ethylbenzene		140	16	8				
styrene								
total xylenes	31,666	780	93	42				
N-nitrosodimethylamine			ARS					
phenol								
aniline								
bis(2-chloroethyl)ether								
2-chlorophenol								
1,3-dichlorobenzene								
1,4-dichlorobenzene								
benzyl alcohol								
1,2-dichlorobenzene								
2-methylphenol								
bis(2-chloroisopropyl)ether								
4-methylphenol								
N-nitroso-di-n-propylamine								
hexachloroethane								
nitrobenzene								
isophrone								
2-nitrophenol								
2,4-dimethylphenol								
benzoic acid								
bis(2-chloroethoxy)methane								
2,4-dichlorophenol								
1,2,4-trichlorobenzene								
napthalene		99 J						
4-chloroaniline								
hexachlorobutadiene								
4-chloro-3-methylphenol								
2-methylnapthalene		61 J						
hexachlorocyclopentadiene								
2,4,6-trichlorophenol								
2,4,5-trichlorophenol								

V O A

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U.S. SCRAP
Case # 8055

COMPOUND	SAMPLE	DET. LIMIT	ppb EP486	EP487	EP488					
dimethyl phthalate										
acenapthylene										
3-nitroaniline										
acenaphthene										
2,4-dinitrophenol										
4-nitrophenol				N						
dibenzofuran				O						
2,4-dinitrotoluene				T						
2,6-dinitrotoluene										
diethylphthalate										
4-chlorophenyl-phenylether										
fluorene										
4-nitroaniline										
4,6-dinitro-2-methylphenol										
N-nitrosodiphenylamine										
4-bromophenyl-phenylether										
hexachlorobenzene				A						
pentachlorophenol				N						
phenanthrene				A						
anthracene				L						
di-n-butylphthalate			100 J	Y	86 J					
fluoranthene				Z						
benzidine				E						
pyrene				D						
butylbenzylphthalate			350 J		140					
3,3'-dichlorobenzidine										
benzo(a)anthracene										
bis(2-ethylhexyl)phthalate					140 J					
chrysene										
di-n-octylphthalate										
benzo(b&k)fluoranthene										
benzo(a)pyrene										
indeno(1,2,3-cd)pyrene										
dibenzo(a,h)anthracene										
benzo(g,h,i)perylene										
alpha-BHC										
beta-BHC										
delta-BHC										
gamma-BHC(lindane)										
heptachlor										
aldrin										
heptachlor epoxide										
endosulfan I										
dieldrin										
4,4'-DDE										
endrin										
endosulfan II										
4,4'-DDD										
endrin aldehyde										
endosulfan sulfate										
4,4'-DDT										
methoxychlor										
endrin ketone										
chlordane										
toxaphene										
Aroclor-1016										
Aroclor-1221										
Aroclor-1232										
Aroclor-1242										
Aroclor-1248			190		137					
Aroclor-1254										
Aroclor-1260										

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

Rec'd 12/22/87 28 PAGES

DATE: 12/18/87

SUBJECT: Review of Region V CLP Data Received for Review on 10-29-87

FROM: Curtis Ross, Director (5SCRL) Patrick J. Chinella for
Central Regional Laboratory

TO: Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME: U.S. Scrap SMO case No. 8055

EPA Data Set No. SF4428 No. of Samples: 3 D.U./Activity Numbers Y905/C72100

CRL No. 87-FC-19523-525

SMO Traffic No. EP 486-488

CLP Laboratory: Hazleton Hrs. Required for Review: 20

Following are our findings:

This review covers 3 soil samples only for organic analysis. Samples EP 487 and EP 488 have been repeated for volatiles only.

1. Sample Holding Times:
The holding time limit for the analysis of the soil samples were met for volatiles, semivolatiles and Pest/PCB.

2. GC/MS Tuning and GC Instrument Performance:
DFTPP and BFB tuning criteria for GC/MS have been met, Endrin and DDT degradation

( ) Data are acceptable for use.
(✓) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Duane Geuder, Quality Assurance Officer, EPA Support Services
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

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DATA QUALIFIERS

Contractor: Hazleton Labs

Case 8055

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

Study and baseline shift were within limit for GC performance.

3. Calibration:

Initial and continuing calibration of volatiles for SPCC and CCC compounds were within the limit. All other HSL compounds that were outside QC limits are found in the Outlier Form and flagged "J" and "R".

Initial and continuing calibration data of semivolatiles for SPCC and CCC were also within QC limits. Other HSL compounds outside the QC limits are found in the Outlier Form and flagged "J" and "R".

Note that the date on the continuing calibration form of semivolatiles, also the initial calibration, had been dated 02/24/87 which should have been 09/24/87.

4. Blanks:

Method blanks, Form IV, No. 1 (987V176) and No. 2 (987V196), have been flagged "J" for volatiles, semivolatiles and Pest/PCB. Aside from the common contaminants, 2-hexanone and tetrachlorethene were detected.

5. Surrogate Recoveries:

Soil surrogate recoveries in method blanks were within the parameter.

Samples, #P487 and #88, showed toluene-d8

Reviewed by: T.G.

Phone: 353-2910

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DATA QUALIFIERS

Contractor: Hazleton Labs

Case 8055

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

over-the-limit and BEB under-the-limit in the volatile fraction. The volatile fractions of EP 487RE and 488RE showed toluene-d8 over-the-limit and BEB was under-the limit in EP 488RE only.

6. Soil Sample MS/MSD

EP486 MS - Volatiles - toluene RPD was over the limit
BIN-1,4-dichlorobenzene RPD was over the limit.
Acid - met QC limitation
Pest - Heptachlor and aldrin were over the RPD limit and aldrin was under the %-recovery limits

EP486 MSD - Same result as above.

7. Detailed Case Specific Problems:

Reanalysis of samples EP 487 and 488 were done due to contaminent discrepancies in the volatiles. I assume that the results will not affect the over-all analysis, therefore, acceptable.

Reviewed by: T.H.

Phone: 343-2960

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE/SAS # 8055 CONTRACTOR 68-01-7146

Instrument # 5100 A	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	9/21/87			9/22/87 9:45			9/23/87 15:57								
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane															
Bromomethane															
Vinyl Chloride															
Chloroethane							.92	42	J						
Methylene Chloride							.72	30	J						
Acetone	.48	34	J	.76	58	J	.93	94	J						
Carbon Disulfide	1.94	48	J	1.08	44	J	2.79	44	J						
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone															
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate															
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform															
4-Methyl-2-Pentanone															
2-Hexanone															
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

		50ppb Std	50ppb Std		
		Method Blank	Method Blank		
		EP486	EP486 MS		
		EP487	EP486 MSD		
		EP488			
		EP486 Dil			
		EP487 Dil			
		EP488 RE			

Reviewer's Initials/Date: T.G. 12/8/87

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

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE/SAS # 8055 CONTRACTOR 68-01-7146

Instrument # 5100 A	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	9/29/87			9/29/87 #1115											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane															
Bromomethane															
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone															
Carbon Disulfide	2.54	41	J	2.78	30	J									
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone															
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate															
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform															
4-Methyl-2-Pentanone															
2-Hexanone															
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

50 ppb Std
Method Blank
Holding Blank

Reviewer's Initials/Date: T.J. 12/8/87

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION

CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

CASE/SAS # 8055 CONTRACTOR 68-01-7146

Instrument # HP 5985	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	9/24/87			10/2/87 15:47											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol				.58	45	J									
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether				2.18	30	J									
4-Methylphenol															
N-Nitroso-Di-n-Propylamine				1.31	34	J									
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid															
bis(2-Chloroethoxy)Methane				.51	30	J									
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene				.25	32	J									
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline				.60	50	J									
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline				.45	46	J									
Acenaphthene															
2,4-Dinitrophenol				.16	55	J									
4-Nitrophenol				.28	69	J									
Dibenzofuran															

AFFECTED SAMPLES:

Stopper BBN 42
Blank (9-23)
BP 486
BP 486 MS
BP 486 MSD
BP 488

Reviewer Initials/Date: T.L. 12/8/87

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

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
Page 2

CASE/SAS # 8055 CONTRACTOR 68-01-7146

Instrument #	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	9/24/87			12/2/87 0547											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene				.28	39	J									
2,6-Dinitrotoluene				.35	27	J									
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline				.35	45	J									
4,6-Dinitro-2-Methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene															
Benzo(k)Fluoranthene															
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene				.141	26	J									
Dibenz(a,h)Anthracene															
Benzo(g,h,i) Perylene															

SEE PAGE 1 FOR AFFECTED SAMPLES.

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

Reviewer's Initials/Date: T.G. 12/8/87

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Case: 8055

Contractor: Hazleton Labs

TENTATIVELY IDENTIFIED COMPOUNDS
MATCH ASSESSMENT

NOTE: Reviewer should note directly on Organic Analysis Data Sheet (OADS) those matches that in his opinion (based on contract criteria) are unreasonable.

CRITERIA

(1) Relative intensities of major ions (>10%) reference spectrum should be present in the sample spectrum.

(2) Relative intensities of major ions in sample spectrum should agree to within ± 20% of reference spectrum intensities.

(3) Molecular ions present in reference spectrum should be present in sample spectrum.

(4) Ions present in sample spectrum, but not in reference spectrum should be reviewed for possible background contamination or presence of coeluting interferences.

(5) Ions present in reference spectrum, but not in the sample spectrum should be reviewed for possible subtraction from the sample spectrum because of background contamination or coeluting interferences.

(6) If, in the reviewer's opinion, no valid identification can be made the compound should be labelled as "unknown" and the initials and date of the reviewer placed on the OADS.

T.G. 12/10/87

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HAZLETON LABORATORIES AMERICA, INC

3301 KINSMAN BLVD. • P.O. BOX 7545 • MADISON, WI 53707 • (608) 241-4471 • TLX 703956 HAZRAL MDS UD

October 27, 1987

RECEIVED
OCT 28 1987
U.S. EPA CENTRAL
REGIONAL LAB

Sample Management Office
Viar and Company
209 Madison Street
Alexandria VA 22314

Enclosed is the data package for Case No. 8055. Under this case number, we received a total of three soil samples on September 18-19, 1987 from Region V. Two samples were analyzed for the full HSL list and one sample, as requested, was analyzed for the VOA fraction only. All samples were analyzed and reported according to the protocols provided under our Contract No. 68-01-7146 bid lot #1.

Please note the following summary comments relating to the contractual quality control in this case:

- GC-MS Tuning. All tuning requirements for both BFB and DFTPP for samples analyzed in this case were within contract criteria.

- Instrumental Calibrations. All instrumental calibrations for all fractions analyzed were within contract criteria for both initial and continuing calibrations.

- Method Blanks. All method blanks for the volatile, semivolatile, and pesticide fractions were found to be within contract criteria.

- Surrogate Recoveries. All calculated surrogate recoveries for the volatile, semivolatile and pesticide fractions were found to be within contract criteria with the following exceptions:

  Volatile fraction: Two samples (EP487, EP488) produced out of control surrogate recoveries involving both Toluene-d8 and BFB, both samples were re-analyzed. The re-analysis of EP487 was performed at a 1:2 dilution to bring the Acetone, found at 280 ug/l, within the calibration range. The re-analysis of EP487 again produced a high out of control recovery for Toluene-d8 but generated an acceptable recovery for BFB. Re-analysis of

SZRE
[illegible]

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EP488 reproduced the out of control surrogate recoveries for both Toluene-d8 and BFB. We consider the surrogate problems associated with both EP487 and EP488 to be matrix related and therefore billable.

- Pesticide Confirmation Analysis. GC confirmation analysis of samples in this case was performed using a DB-608 Megabore Capillary Column. Please note that a 1.5% DBC shift criteria has been established by Joan Fisk when using Megabore capillary columns.

If you have any questions regarding this case or need any further clarifications, please feel free to call.

Sincerely,

David C. Hills
Manager, Environmental Analysis

DCH/sc

cc: Region V
USEPA EMSL-LV
Central File

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. 8055 Contract Laboratory HAZLETON LABORATORIES Contract No. 68-01-7146

Low ✓ Medium _____

	VOLATILE			SEMI-VOLATILE								PESTICIDE
SMO TRAFFIC NO.	TOLUENE-D8 (81-117)	BFB (74-121)	1,2 DICHLORO-ETHANE-D4 (70-121)	NITRO-BENZENE-D5 (23-120)	2-FLUORO-BIPHENYL (30-115)	TERPHENYL-D14 (18-137)			PHENOL-D6 (24-113)	2-FLUORO-PHENOL (25-121)	2,4,6 TRIBROMO-PHENOL (19-122)	DIBUTYL-CHLORENDATE** (20-150)
EP486	110	90	94	80	77	90			87	81	78	131
EP487	144*	60*	86	NR	NR	NR			NR	NR	NR	NR
EP488	143*	72*	84	63	64	81			67	64	62	122
EP486MS	103	90	92	92	84	98			96	90	83	138
EP486MSD	106	91	94	87	83	99			93	86	88	116
EP487RE	123*	78	98	NR	NR	NR			NR	NR	NR	NR
EP488RE	158*	71*	100	NR	NR	NR			NR	NR	NR	NR
M.Blk.1	101	104	94	NR	NR	NR			NR	NR	NR	NR
M.Blk.2	99	96	95	82	77	90			82	82	61	NR
M.Blk.3	101	100	94	NR	NR	NR			NR	NR	NR	106
Hol. Blk.	98	96	88	NR	NR	NR			NR	NR	NR	NR

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 7 out of 33 ; outside of QC limits

Semi-Volatiles: 0 out of 30 ; outside of QC limits

Pesticides: 0 out of 5 ; outside of QC limits

7/85

Comments: _____

FORM II

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SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 8655 **Contractor** HAZLETON LABORATORIES **Contract No.** 68-01-7146

Low Level ✓ **Medium Level** _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO.	1,1-Dichloroethene	310	0	263	85	273	88	3	22	59-172
	Trichloroethene	310	0	306	99	323	104	5	24	62-137
	Chlorobenzene	310	0	325	105	333	107	2	21	60-133
	Toluene	310	190	413	72	478	93	25*	21	59-139
	Benzene	310	4	288	92	300	95	3	21	66-142
B/N SMO SAMPLE NO.	1,2,4-Trichlorobenzene	2070	0	1510	73	1240	60	11	23	38-107
	Acenaphthene	↓	↓	1380	67	1300	63	6	19	31-137
	2,4 Dinitrotoluene			1460	71	1560	75	5	47	28-89
	Pyrene			1900	92	1780	86	7	36	35-142
	N-Nitrosodi-n-Propylamine			1890	91	1580	76	18	38	41-126
EP486	1,4-Dichlorobenzene			1520	73	1080	52	34*	27	28-104
ACID SMO SAMPLE NO.	Pentachlorophenol	4130		3100	75	2380	58	26	47	17-109
	Phenol			3590	87	3160	76	14	35	26-90
	2-Chlorophenol			3520	85	2950	71	18	50	25-102
	4-Chloro-3-Methylphenol			3030	73	2870	69	6	33	26-103
EP486	4-Nitrophenol	↓	↓	3410	82	3360	81	1	50	11-114
PEST SMO SAMPLE NO.	Lindane	16.6	0	11.1	67	9.66	58	7	50	46-127
	Heptachlor	16.6	12.7	21.7	54	19.5	41	42*	31	35-130
	Aldrin	16.6	3.9	11.8	48	7.2	20*	48*	43	34-132
	Dieldrin	41.4	5.0	35.4	73	28.4	57	22	38	31-134
	Endrin	41.4	0	26.6	63	22.5	54	17	45	42-139
	4,4'-DDT	41.4	7.0	50.4	104	39.6	79	24	50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 1 out of 5 outside QC limits
B/N 1 out of 6 outside QC limits
ACID 0 out of 5 outside QC limits
PEST 2 out of 6 outside QC limits

RECOVERY: VOAs 0 out of 10 outside QC limits
B/N 0 out of 12 outside QC limits
ACID 0 out of 10 outside QC limits
PEST 1 out of 12 outside QC limits

Comments: _____

7/85

FORM III

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METHOD BLANK SUMMARY

Case No. 8055 Region _____ Contractor HAZLETON LABORATORIES Contract No. 68-01-7146

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (HSL, TIC OR UNKNOWN)	CONC.	UNITS	CRDL
987V176	09/22/87	VOA	SOIL	LOW	5100A	75-09-2	Methylene Chloride	5	ug/kg	5
Blk 1						67-64-1	Acetone	6 J		10
						67-66-3	Chloroform	1 J		5
						108-88-3	Toluene	0.7 J		5
						1066-40-6	Silanol, Trimethyl-	6 J		—
987V196	09/23/87					75-09-2	Methylene Chloride	7		5
Blk 7						67-64-1	Acetone	6 J		10
						67-66-3	Chloroform	2 J		5
						591-78-6	2-Hexanone	3 J		10
						127-18-4	Tetrachloroethene	0.9 J		5
						108-88-3	Toluene	1 J		5
						1066-40-6	Silanol, Trimethyl-	7 J		—
987V251	09/29/87					75-09-2	Methylene Chloride	5		5
						67-64-1	Acetone	6 J		10
						108-88-3	Toluene	2 J		5
						590-86-3	Butanal, 3-methyl-	6 J		—
29561	10/2/87	BNA	SOIL	low	HP5985	105464	Acetic acid, 1-methyl propyl ester	470	UG/KG	—
						—	unknown	300		—
3512	10/8/87	PEST	SOIL	low	5779	—	none found	—	—	—

Comments: Flagged by T.G. 12/8/87

FORM IV 7/85

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Sample Number
EP486

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Case No: 8055
Lab Sample ID No: 70904483
QC Report No:
Sample Matrix: SOIL
Contract No: 68-01-7146
Data Release Authorized By: David C. Cybl
Date Sample Received: 09/18/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 09/22/87
Date Analyzed: 09/22/87
Conc/Dil Factor: 5 pH 8.0
Percent Moisture: (Not Decanted) 19.5 C.F. = 1.24

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	62 U
74-83-9	Bromomethane	62 U
75-01-4	Vinyl Chloride	62 U
75-00-3	Chloroethane	62 U
75-09-2	Methylene Chloride	34 B
67-64-1	Acetone	101 B
75-15-0	Carbon Disulfide	31 U
75-35-4	1, 1-Dichloroethene	31 U
75-34-3	1, 1-Dichloroethane	31 U
156-60-5	Trans-1, 2-Dichloroethene	31 U
67-66-3	Chloroform	19 JB
107-06-2	1, 2-Dichloroethane	31 U
78-93-3	2-Butanone	8 J
71-55-6	1, 1, 1-Trichloroethane	31 U
56-23-5	Carbon Tetrachloride	31 U
108-05-4	Vinyl Acetate	62 U
75-27-4	Bromodichloromethane	31 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	31 U
10061-02-6	Trans-1, 3-Dichloropropene	31 U
79-01-6	Trichloroethene	31 U
124-48-1	Dibromochloromethane	31 U
79-00-5	1, 1, 2-Trichloroethane	31 U
71-43-2	Benzene	4 J
10061-01-5	cis-1, 3-Dichloropropene	31 U
110-75-8	2-Chloroethylvinylether	62 U
75-25-2	Bromoform	31 U
108-10-1	4-Methyl-2-Pentanone	62 U
591-78-6	2-Hexanone	62 U
127-18-4	Tetrachloroethene	6 J
79-34-5	1, 1, 2, 2-Tetrachloroethane	31 U
108-88-3	Toluene	190 B
108-90-7	Chlorobenzene	31 U
100-41-4	Ethylbenzene	140
100-42-5	Styrene	31 U
	Total Xylenes	780 *

Data Reporting Qualifiers

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

* = HRS
5 × 31 = 155

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other 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 data summary report.

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Laboratory Name: HAZLETON LABORATORIES

Case No: 8055

Sample Number: EP486

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 09/23/87

Date Analyzed: 10/03/87

Conc/Dil Factor: 1

Percent Moisture (Decanted): 19.5

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	410U
111-44-4	bis(-2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1, 3-Dichlorobenzene	
106-46-7	1, 4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1, 2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2, 4-Dimethylphenol	
65-85-0	Benzoic Acid	2000U
111-91-1	bis(-2-Chloroethoxy)Methane	410U
120-83-2	2, 4-Dichlorophenol	410U
120-82-1	1, 2, 4-Trichlorobenzene	410U
91-20-3	Naphthalene	99J
106-47-8	4-Chloroaniline	410U
87-68-3	Hexachlorobutadiene	410U
59-50-7	4-Chloro-3-Methylphenol	410U
91-57-6	2-Methylnaphthalene	61J
77-47-4	Hexachlorocyclopentadiene	410U
88-06-2	2, 4, 6-Trichlorophenol	410U
95-95-4	2, 4, 5-Trichlorophenol	2000U
91-58-7	2-Chloronaphthalene	410U
88-74-4	2-Nitroaniline	2000U
131-11-3	Dimethyl Phthalate	410U
208-96-8	Acenaphthylene	410U
99-09-2	3-Nitroaniline	2000U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	410U
51-28-5	2, 4-Dinitrophenol	2000U
100-02-7	4-Nitrophenol	2000U
132-64-9	Dibenzofuran	410U
121-14-2	2, 4-Dinitrotoluene	
606-20-2	2, 6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	
100-01-6	4-Nitroaniline	2000U
534-52-1	4, 6-Dinitro-2-Methylphenol	2000U
86-30-6	N-Nitrosodiphenylamine (1)	410U
101-55-3	4-Bromophenyl-phenylether	410U
118-74-1	Hexachlorobenzene	410U
87-86-5	Pentachlorophenol	2000U
85-01-8	Phenanthrene	410U
120-12-7	Anthracene	410U
84-74-2	Di-n-Butylphthalate	100J
206-44-0	Fluoranthene	410U
129-00-0	Pyrene	410U
85-68-7	Butylbenzylphthalate	410U
91-94-1	3, 3'-Dichlorobenzidine	820U
56-55-3	Benzo(a)Anthracene	410U
117-81-7	bis(2-Ethylhexyl)Phthalate	350J
218-01-9	Chrysene	410U
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	
53-70-3	Dibenz(a, h)Anthracene	
191-24-2	Benzo(g, h, i)Perylene	

(1)-Cannot be separated from diphenylamine

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Laboratory Name HAZLETON LABORATORIES

Case No 8055

Sample Number EP486

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 9-23-87

Date Analyzed 10-8-87

Conc/Dil Factor 1

Percent Moisture (decanted) 19.5%

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	9.9u
319-85-7	Beta-BHC	9.9u
319-86-8	Delta-BHC	9.9u
58-89-9	Gamma-BHC (Lindane)	9.9u
76-44-8	Heptachlor	9.9u
309-00-2	Aldrin	9.9u
1024-57-3	Heptachlor Epoxide	9.9u
959-98-8	Endosulfan I	9.9u
60-57-1	Dieldrin	20u
72-55-9	4,4'-DDE	20u
72-20-8	Endrin	20u
33213-65-9	Endosulfan II	20u
72-54-8	4,4'-DDD	20u
1031-07-8	Endosulfan Sulfate	20u
50-29-3	4,4'-DDT	20u
72-43-5	Methoxychlor	99u
53494-70-5	Endrin Ketone	20u
57-74-9	Chlordane	99u
8001-35-2	Toxaphene	200u
12674-11-2	Aroclor-1016	99u
11104-28-2	Aroclor-1221	99u
11141-16-5	Aroclor-1232	99u
53469-21-9	Aroclor-1242	99u
12672-29-6	Aroclor-1248	190
11097-69-1	Aroclor-1254	200u
11096-82-5	Aroclor-1260	200u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s — or W_s 24.1g V_t 20.000 µl V_i 4.0 µl

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Laboratory Name HAZLETON LABORATORIES

Case No 8055

Sample Number EP 486

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 105464	Acetic acid, 1-methylpropyl ester	BNA	348	600B
2. 5166530	3-Hexen-2-one, 5-methyl-		433	320
3.	unknown		490	320
4. 2396749	2H-Pyran-2,3-diol, tetrahydro, diacetate, cis-		549	320
5.	unknown alkane		815	320
6.	unknown alkane		1533	190
7.	unknown alkane		1744	170
8.	unknown alkane		2137	200
9.	unknown alkane		2147	190
10.	unknown alkane		2317	180
11.	unknown alkane		2511	170
12. 10544500	Sulfur, molecular (S_8)	✓	2531	470
13. 108-38-3	Ethane, 1,1'-Oxy bis	VOA	190	43 J
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Sample Number
EP 487

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Case No: 8055
Lab Sample ID No: 70904842
QC Report No:
Sample Matrix: SOIL
Contract No: 68-01-7146
Data Release Authorized By: [signature]
Date Sample Received: 09/19/87

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 09/22/87
Date Analyzed: 09/22/87
Conc/Dil Factor: 1 pH 7.7
Percent Moisture: (Not Decanted) 17.9 C.F. = 1.22

CAS Number		ug/l or ug/Kg (Circle One)
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	15 B
67-64-1	Acetone	280 B
75-15-0	Carbon Disulfide	6 U
75-35-4	1, 1-Dichloroethene	6 U
75-34-3	1, 1-Dichloroethane	6 U
156-60-5	Trans-1, 2-Dichloroethene	6 U
67-66-3	Chloroform	3 JB
107-06-2	1, 2-Dichloroethane	6 U
78-93-3	2-Butanone	12 U
71-55-6	1, 1, 1-Trichloroethane	6 U
56-23-5	Carbon Tetrachloride	6 U
108-05-4	Vinyl Acetate	12 U
75-27-4	Bromodichloromethane	6 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	6 U
10061-02-6	Trans-1, 3-Dichloropropene	6 U
79-01-6	Trichloroethene	6 U
124-48-1	Dibromochloromethane	6 U
79-00-5	1, 1, 2-Trichloroethane	6 U
71-43-2	Benzene	6 U
10061-01-5	cis-1, 3-Dichloropropene	6 U
110-75-8	2-Chloroethylvinylether	12 U
75-25-2	Bromoform	6 U
108-10-1	4-Methyl-2-Pentanone	12 U
591-78-6	2-Hexanone	12 U
127-18-4	Tetrachloroethene	2 J
79-34-5	1, 1, 2, 2-Tetrachloroethane	6 U
108-88-3	Toluene	11 B
108-90-7	Chlorobenzene	6 U
100-41-4	Ethylbenzene	16
100-42-5	Styrene	6 U
	Total Xylenes	93 *

* HRS = 5 × 6 = 30

Data Reporting Qualifiers

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

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other 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 data summary report.

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Sample Number
EP 487 RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Case No: 8055
Lab Sample ID No: 20904842
QC Report No:
Sample Matrix: SOIL
Contract No: 68-01-7146
Data Release Authorized By:
Date Sample Received: 09/19/87

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 09/22/87
Date Analyzed: 09/22/87
Conc/Dil Factor: 2 pH 7.7
Percent Moisture: (Not Decanted) 17.9 C.F. = 1.22

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	24 U
74-83-9	Bromomethane	24 U
75-01-4	Vinyl Chloride	24 U
75-00-3	Chloroethane	24 U
75-09-2	Methylene Chloride	13 B
67-64-1	Acetone	390 B
75-15-0	Carbon Disulfide	12 U
75-35-4	1, 1-Dichloroethene	12 U
75-34-3	1, 1-Dichloroethane	12 U
156-60-5	Trans-1, 2-Dichloroethene	12 U
67-66-3	Chloroform	4 JB
107-06-2	1, 2-Dichloroethane	12 U
78-93-3	2-Butanone	24 U
71-55-6	1, 1, 1-Trichloroethane	12 U
56-23-5	Carbon Tetrachloride	12 U
108-05-4	Vinyl Acetate	24 U
75-27-4	Bromodichloromethane	12 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	12 U
10061-02-6	Trans-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	0.9 J
10061-01-5	cis-1, 3-Dichloropropene	12 U
110-75-8	2-Chloroethylvinylether	24 U
75-25-2	Bromoform	12 U
108-10-1	4-Methyl-2-Pentanone	24 U
591-78-6	2-Hexanone	24 U
127-18-4	Tetrachloroethene	3 J
79-34-5	1, 1, 2, 2-Tetrachloroethane	12 U
108-88-3	Toluene	8 JB
108-90-7	Chlorobenzene	12 U
100-41-4	Ethylbenzene	11
100-42-5	Styrene	12 U
	Total Xylenes	25

Data Reporting Qualifiers

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

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other 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 data summary report

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ecology and environment

Laboratory Name HAZLETON LABORATORIES

Case No 8055

Sample Number EP487

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 60-29-7	Ethane, 1,1'-Oxybis-	VOA	188	7. J
2. 109-66-0	Pentane		224	9. J
3. —	Unknown		477	200. J
4. 526-73-8	Benzene, 1,2,3-Trimethyl-		558	350 J
5. 620-14-4	Benzene, 1-ethyl-3-methyl-		590	94 J
6.				
7.				
8.				
9.	Please see note on			
10.	non-HSL chromatogram regarding			
11.	TIC peaks at 477, 558 and			
12.	590 scans.			
13.	[illegible] 10-9-87			
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Laboratory Name HAZLETON LABORATORIES

Case No 8055

Sample Number EP487-RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 1066-40-6	Silanol, Trimethyl-	VOA	252	19 JB
2. —	Unknown		490	36 J
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ecology and environment

Sample Number
EP488

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Case No: 8055
Lab Sample ID No: 70904843
QC Report No:
Sample Matrix: SOIL
Contract No: 68-01-7146
Data Release Authorized By: [signature]
Date Sample Received: 09/19/87

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 09/22/87
Date Analyzed: 09/22/87
Conc/Dil Factor: 1 pH 8.1
Percent Moisture: (Not Decanted) 16.1 C.F. = 1.19

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	12 U
74-83-9	Bromomethane	12 U
75-01-4	Vinyl Chloride	12 U
75-00-3	Chloroethane	12 U
75-09-2	Methylene Chloride	22 B
67-64-1	Acetone	140 B
75-15-0	Carbon Disulfide	6 U
75-35-4	1, 1-Dichloroethene	6 U
75-34-3	1, 1-Dichloroethane	6 U
156-60-5	Trans-1, 2-Dichloroethene	6 U
67-66-3	Chloroform	9 B
107-06-2	1, 2-Dichloroethane	6 U
78-93-3	2-Butanone	12 U
71-55-6	1, 1, 1-Trichloroethane	6 U
56-23-5	Carbon Tetrachloride	6 U
108-05-4	Vinyl Acetate	12 U
75-27-4	Bromodichloromethane	6 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	6 U
10061-02-6	Trans-1, 3-Dichloropropene	6 U
79-01-6	Trichloroethene	6 U
124-48-1	Dibromochloromethane	6 U
79-00-5	1, 1, 2-Trichloroethane	6 U
71-43-2	Benzene	6 U
10061-01-5	cis-1, 3-Dichloropropene	6 U
110-75-8	2-Chloroethylvinylether	12 U
75-25-2	Bromoform	6 U
108-10-1	4-Methyl-2-Pentanone	12 U
591-78-6	2-Hexanone	12 U
127-18-4	Tetrachloroethene	2 J
79-34-5	1, 1, 2, 2-Tetrachloroethane	6 U
108-88-3	Toluene	23 B
108-90-7	Chlorobenzene	6 U
100-41-4	Ethylbenzene	8
100-42-5	Styrene	6 U
	Total Xylenes	42 *

* HRS
5 x 6 = 30

Data Reporting Qualifiers

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

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other 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 data summary report

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Laboratory Name: HAZLETON LABORATORIES

Case No: 8055

Sample Number
EP488

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 09/23/87

Date Analyzed: 10/03/87

Conc/Dil Factor: 1

Percent Moisture (Decanted): 16.1

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	400U	
111-44-4	bis(-2-Chloroethyl)Ether		
95-57-8	2-Chlorophenol		
541-73-1	1, 3-Dichlorobenzene		
106-46-7	1, 4-Dichlorobenzene		
100-51-6	Benzyl Alcohol		
95-50-1	1, 2-Dichlorobenzene		
95-48-7	2-Methylphenol		
39638-32-9	bis(2-chloroisopropyl)Ether		
106-44-5	4-Methylphenol		
621-64-7	N-Nitroso-Di-n-Propylamine		
67-72-1	Hexachloroethane		
98-95-3	Nitrobenzene		
78-59-1	Isophorone		
88-75-5	2-Nitrophenol		
105-67-9	2, 4-Dimethylphenol		
65-85-0	Benzoic Acid	2000U	
111-91-1	bis(-2-Chloroethoxy)Methane	400U	
120-83-2	2, 4-Dichlorophenol		
120-82-1	1, 2, 4-Trichlorobenzene		
91-20-3	Naphthalene		
106-47-8	4-Chloroaniline		
87-68-3	Hexachlorobutadiene		
59-50-7	4-Chloro-3-Methylphenol		
91-57-6	2-Methylnaphthalene		
77-47-4	Hexachlorocyclopentadiene		
88-06-2	2, 4, 6-Trichlorophenol		
95-95-4	2, 4, 5-Trichlorophenol	2000U	
91-58-7	2-Chloronaphthalene	400U	
88-74-4	2-Nitroaniline	2000U	
131-11-3	Dimethyl Phthalate	400U	
208-96-8	Acenaphthylene	400U	
99-09-2	3-Nitroaniline	2000U	

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	400U	
51-28-5	2, 4-Dinitrophenol	2000U	
100-02-7	4-Nitrophenol	2000U	
132-64-9	Dibenzofuran	400U	
121-14-2	2, 4-Dinitrotoluene		
606-20-2	2, 6-Dinitrotoluene		
84-66-2	Diethylphthalate		
7005-72-3	4-Chlorophenyl-phenylether		
86-73-7	Fluorene		
100-01-6	4-Nitroaniline	2000U	
534-52-1	4, 6-Dinitro-2-Methylphenol	2000U	
86-30-6	N-Nitrosodiphenylamine (1)	400U	
101-55-3	4-Bromophenyl-phenylether	400U	
118-74-1	Hexachlorobenzene	400U	
87-86-5	Pentachlorophenol	2000U	
85-01-8	Phenanthrene	400U	
120-12-7	Anthracene	400U	
84-74-2	Di-n-Butylphthalate	86J	
206-44-0	Fluoranthene	400U	
129-00-0	Pyrene		
85-68-7	Butylbenzylphthalate		
91-94-1	3, 3'-Dichlorobenzidine	800U	
56-55-3	Benzo(a)Anthracene	400U	
117-81-7	bis(2-Ethylhexyl)Phthalate	140J	
218-01-9	Chrysene	400U	
117-84-0	Di-n-Octyl Phthalate		
205-99-2	Benzo(b)Fluoranthene		
207-08-9	Benzo(k)Fluoranthene		
50-32-8	Benzo(a)Pyrene		
193-39-5	Indeno(1, 2, 3-cd)Pyrene		
53-70-3	Dibenz(a, h)Anthracene		
191-24-2	Benzo(g, h, i)Perylene		

(1)-Cannot be separated from diphenylamine

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Laboratory Name HAZLETON LABORATORIES

Case No 8055

Sample Number EP 488

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 9.23.87

Date Analyzed 10.9.87

Conc/Dil Factor 1

Percent Moisture (decanted) 16.1%

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	9.5 U
319-85-7	Beta-BHC	9.5 U
319-86-8	Delta-BHC	9.5 U
58-89-9	Gamma-BHC (Lindane)	9.5 U
76-44-8	Heptachlor	9.5 U
309-00-2	Aldrin	9.5 U
1024-57-3	Heptachlor Epoxide	9.5 U
959-98-8	Endosulfan I	9.5 U
60-57-1	Dieldrin	19 U
72-55-9	4,4'-DDE	19 U
72-20-8	Endrin	19 U
33213-65-9	Endosulfan II	19 U
72-54-8	4,4'-DDD	19 U
1031-07-8	Endosulfan Sulfate	19 U
50-29-3	4,4'-DDT	19 U
72-43-5	Methoxychlor	95 U
53494-70-5	Endrin Ketone	19 U
57-74-9	Chlordane	95 U
8001-35-2	Toxaphene	190 U
12674-11-2	Aroclor-1016	95 U
11104-28-2	Aroclor-1221	95 U
11141-16-5	Aroclor-1232	95 U
53469-21-9	Aroclor-1242	95 U
12672-29-6	Aroclor-1248	137
11097-69-1	Aroclor-1254	190 U
11096-82-5	Aroclor-1260	190 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s — or W_s 25.1 g V_t 20,000 µl V_i 4.0 µl

ecology and environment

Sample Number
EP 488 RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Case No: 8055
Lab Sample ID No: 70904843
QC Report No:
Sample Matrix: SOIL
Contract No: 68-01-7146
Data Release Authorized By: [signature]
Date Sample Received: 09/19/87

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 09/22/87
Date Analyzed: 09/22/87
Conc/Dil Factor: 1 pH 8.1
Percent Moisture. (Not Decanted) 16.1 C.F. = 1.19

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	12 U
74-83-9	Bromomethane	12 U
75-01-4	Vinyl Chloride	12 U
75-00-3	Chloroethane	12 U
75-09-2	Methylene Chloride	12 B
67-64-1	Acetone	33 B
75-15-0	Carbon Disulfide	6 U
75-35-4	1, 1-Dichloroethene	6 U
75-34-3	1, 1-Dichloroethane	6 U
156-60-5	Trans-1, 2-Dichloroethene	6 U
67-66-3	Chloroform	2 JB
107-06-2	1, 2-Dichloroethane	6 U
78-93-3	2-Butanone	3 J
71-55-6	1, 1, 1-Trichloroethane	6 U
56-23-5	Carbon Tetrachloride	6 U
108-05-4	Vinyl Acetate	12 U
75-27-4	Bromodichloromethane	6 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	6 U
10061-02-6	Trans-1, 3-Dichloropropene	6 U
79-01-6	Trichloroethene	6 U
124-48-1	Dibromochloromethane	6 U
79-00-5	1, 1, 2-Trichloroethane	6 U
71-43-2	Benzene	6 U
10061-01-5	cis-1, 3-Dichloropropene	6 U
110-75-8	2-Chloroethylvinylether	12 U
75-25-2	Bromoform	6 U
108-10-1	4-Methyl-2-Pentanone	12 U
591-78-6	2-Hexanone	12 U
127-18-4	Tetrachloroethene	3 J
79-34-5	1, 1, 2, 2-Tetrachloroethane	6 U
108-88-3	Toluene	22 B
108-90-7	Chlorobenzene	6 U
100-41-4	Ethylbenzene	10
100-42-5	Styrene	6 U
	Total Xylenes	50*

* HRS 5×6 = 30

Data Reporting Qualifiers

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

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other 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 data summary report.

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Laboratory Name HAZLETON LABORATORIES

Case No 8055

Sample Number EP 488

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 105464	Acetic acid, 1-methylpropyl ester	BNA	346	460 B
2. 5166530	3-Hexene-2-one, 5-methyl-		432	340
3.	unknown		489	310
4. 2396749	2H-Pyran-2,3-diol, tetrahydro-, diacetate, cis-		547	220
5.	unknown alkane		816	220
6.	unknown alkane		1742	190
7.	unknown alkane		1943	180
8.	unknown alkane		2037	210
9.	unknown alkane		2133	480
10.	unknown alkane		2144	670
11.	unknown alkane		2313	440
12.	unknown alkane		2329	360
13. 629925	Nonadecane		2430	370
14.	unknown alkane		2507	230
15.	unknown alkane		2569	170
16. 629-14-1	Ethane, 1,2-Diethoxy-	VOA	189	23 J
17. 7094-26-0	Cyclohexane, 1,1,2-Trimethyl-		474	9 J
18. —	Unknown		568	16 J
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

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Laboratory Name HAZLETON LABORATORIES

Case No 8055

Sample Number EP488-RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 7094-26-0	Cyclohexane, 1,1,2-Trimethyl-	VOA	474	15 J
2. —	Unknown		566	13 J
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
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22.				
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26.				
27.				
28.				
29.				
30.				

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International Specialists in the Environment

CRL Receipt Date 10/24 FIT Receipt Date 11/13 Review Completed 11/17/87

TO: Jeff Carman

FROM: Zena Gold-Kaufman

SUBJECT: US Scrap

PAN: ILO102 CASE # 5055

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
#	Low Soil	# 3	Low Soil
	Low Water		Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status _____ Completed!!

_____ Incomplete, awaiting: _____

FIT Data Review Findings:

Arsenic, and Lead data estimated due to low recovery

Check Data Sheets for Transcription Errors

✓ Compounds were detected in sample(s); see enclosed sheet.

Book No. 7 Page No. 16 Date Sampled 9/18/87

26U:001

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CHEMICAL EVALUATION FORM

SITE NAME: US Scrap PAN#: DATE: 11/17/87

CASE #: 5110 UNITS: mg/kg REVIEWER: ZGC

TOX/ PERS	COMPOUND	CRDL	3-5xCRDL	514	515	516				
	ALUMINUM									
	low recovery ANTIMONY J									
	low recovery ARSENIC J			7.61 J	6.81 J					
	BARIUM									
	BERYLLIUM									
	CADMIUM					2.88				
	CHROMIUM J			20.1 J	13.6 J	9.8 J				
	high recovery COBALT J			[20.1] J	29.6 J	[26.5] J				
	COPPER			18.9	22.5	27.7				
	low recovery LEAD J ~~K~~			15.2 J	16.1 J	11.8 J				
	MERCURY									
	NICKEL			33.5	38.5	38.6				
	SELENIUM									
	SILVER									
	THALLIUM									
	TIN									
	VANADIUM			[27.4]	[25.4]	[15.0]				
	ZINC									
	CYANIDE									

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 11-10-87

SUBJECT: Review of Region V CLP Data
Received for Review on 10-28-87

FROM: Curtis Ross, Director (5SCRL)
Central Regional Laboratory Jay Thrasher

Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME: U. S. SCRAP SMO case No. [illegible]

EPA Data Set No. SF 4428 No. of Samples: 3 D.U./Activity Numbers Y905/[illegible]

CRL No. 87FC19523 - 525

SMO Traffic No. MEP514 - 516

CLP Laboratory: SPECTRIX - HOUSTON Hrs. Required for Review: 1.5 hrs

Following are our findings:

This review covers analysis of three low level soils for total metals and CN. Cr data is flagged as estimated for exceeding CRDL duplication. Pb data is starred for RPD greater than ±20%, but is not flagged since soils allow ±35%. Sb spike recovery (47%) is below limits with no detection in sample, flagging data as estimated, and requiring higher detection limits on low biased ones. The elements exceeding spike recovery of ±25% are As (69%), Co (130%), and Pb (73%). They are flagged in data results as estimated. CN shows slightly under 75% spike recovery by Contractor (74.8%) but rounding rules allow it to be acceptable as 75%. Von the duplicate Form VI shows sample value as [33] µg/l, while raw data reports [45] µg/l. Change has been made on the form. All other results are satisfactory.

11-9-87
DMM

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Duane Geuder, Quality Assurance Officer, EPA Support Services
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

EPA FORM 1320-6 (Rev. 5/87)

QC EXCEPTION SUMMARY REPORT

CASE # 8055
DATA SET # SF4428
LAB Q.C. # 157
DATE:

SITE U. S. Scrap
LAB Spectris
REVIEWER BY Dorothy M. May

MATRIX: soil
CONC. : low

WATER SAMPLE SPK.
WATER SAMPLE DUP.
SOIL SAMPLE SPK. MEP 514
SOIL SAMPLE DUP. MEP 514

	OVERALL CASE QC									MATRIX SPECIFIC QC						SAMPLE SPECIFIC QC		FIELD QC			REGIONAL QC			OTHER/ COMMENTS
	Holding Time	Cal Blanks	Mid Calibr	Contin Calibr	Prep Blk AQ	Prep Blk SOL	ICS %R	ICS % AQ	ICS % SOL	Sol Dup RPD	Sol Spk %R	AQ Dup RPD	AQ Spk %R	Ser Dilu AQ	Ser Dilu SOL	GFAA Dup	GFAA Spike	Blank	Dup RPD	Spike %R	Blind Blank	Blind Spike %R	Split Sample RPD	
Aluminum																								
Antimony											47%													
Arsenic											69%													
Barium																								
Beryllium																								
Cadmium																								
Calcium																								
Chromium										>CRDL														
Cobalt											130%													
Copper																								
Iron																								
Lead										24%	73.2%													
Magnesium																								
Manganese																								
Mercury																								
Nickel																								
Potassium																								
Selenium																								
Silver																								
Sodium																								
Strontium																								
Tin																								
Vanadium																								
Zinc											75%													

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U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

Spectrix D.C. Control# 8055-05-06

Date 10-24-87

COVER PAGE
INORGANIC ANALYSES DATA PACKAGE

Lab Name: Spex/Hon

Case No. 8055

SOW No. 784

Q.C. Report No. 157

Sample Numbers

EPA No.	Lab ID No.	EPA No.	Lab ID No.
MEP514	8709051-02A,02B		
515	05A,05B		
516	06A,06B		

Comments:

ICP Interelement and background corrections applied? Yes ✓ No ___.

If yes, corrections applied before ✓ or after ___ generation of raw data.

Footnotes:

NR - not required by contract at this time

Form I:

Value - If the result is a value greater than or equal to the instrument detection limit but less than the contract required detection limit, report the value in brackets (i.e., [10]). Indicate the analytical method used with P (for ICP/Flame AA) or F (for furnace).

U - Indicates element was analyzed for but not detected. Report with the detection limit value (e.g., 10U).

E - Indicates a value estimated or not reported due to the presence of interference. Explanatory note included on cover page.

S - Indicates value determined by Method of Standard Addition.

R - Indicates spike sample recovery is not within control limits.

* - Indicates duplicate analysis is not within control limits.

\+ - Indicates the correlation coefficient for method of standard addition is less than 0.995

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Spectrix D.C. C[illegible] # 55-05-06

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MEP 514

Date 10-24-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Spex/Hou CASE NO. 8055

SOW NO. 784

LAB SAMPLE ID. NO. 8709051-02A,02B QC REPORT NO. 157

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ____ Soil ✓ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	15800	P	13.	Magnesium	33400	P
2.	Antimony	30u R	P 11J	14.	Manganese	388	P
3.	Arsenic	7.61 R	F J	15.	Mercury	0.12u	CV
4.	Barium	[100]	P	16.	Nickel	33.5	P
5.	Beryllium	1.2u	P	17.	Potassium	4030	P
6.	Cadmium	3.0u	P	18.	Selenium	3.0u	F
7.	Calcium	73900	P	19.	Silver	4.9u	P
8.	Chromium	20.1 *	P J	20.	Sodium	[335]	P
9.	Cobalt	[20.1] R	P J	21.	Thallium	6.1u	F
10.	Copper	18.9	P	22.	Tin	23u	P
11.	Iron	27500	P	23.	Vanadium	[27.4]	P
12.	Lead	15.2 R *	F J	24.	Zinc	57.2	P

Cyanide 6.1u R Color Percent Solids (%) 82.1

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: ____

Lab Manager Candace Friday for Ken Elonan

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Spectrix D.C. C rol # 8 5-05-06

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MEP515

Date 10-24-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Spex/Hou CASE NO. 8055

SOW NO. 784

LAB SAMPLE ID. NO. 8709051-05A,05B - QC REPORT NO. 157

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ____ Soil ✓ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	16500	P	13.	Magnesium	32400	P
2.	Antimony	30u R	P UJ	14.	Manganese	417	P
3.	Arsenic	6.81 R	F J	15.	Mercury	0.12u	CV
4.	Barium	[52.7]	P	16.	Nickel	38.5	P
5.	Beryllium	1.2u	P	17.	Potassium	3400	P
6.	Cadmium	3.0u	P	18.	Selenium	3.0u	F
7.	Calcium	69300	P	19.	Silver	4.7u	P
8.	Chromium	13.6 *	P J	20.	Sodium	[213]	P
9.	Cobalt	29.6 R	P J	21.	Thallium	5.9u	F
10.	Copper	22.5	P	22.	Tin	22u	P
11.	Iron	29400	P	23.	Vanadium	[25.4]	P
12.	Lead	16.1 R *	F J	24.	Zinc	62.7	P

Cyanide 5.9u R Color Percent Solids (%) 84.5

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: ____

Lab Manager Candace Friday
for Ken Erondu

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81 5-05-06
Spectrix D.C. Control # _____

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MEP516

Date 10-24-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Spex/Hon CASE NO. 8055
SOW NO. 784
LAB SAMPLE ID. NO. 8709051-06A,06B QC REPORT NO. 157

Elements Identified and Measured

Concentration: Low ✓ Medium _____
Matrix: Water _____ Soil ✓ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	9700	P	13.	Magnesium	31200	P
2.	Antimony	29u R	P UJ	14.	Manganese	423	P
3.	Arsenic	5.8u R	F J	15.	Mercury	0.12u	CV
4.	Barium	[32.9]	P	16.	Nickel	38.6	P
5.	Beryllium	1.2u	P	17.	Potassium	[2580]	P
6.	Cadmium	2.88	P	18.	Selenium	2.9u	F
7.	Calcium	56900	P	19.	Silver	4.6u	P
8.	Chromium	9.80 *	P J	20.	Sodium	[248]	P
9.	Cobalt	[26.5] R	P J	21.	Thallium	5.8u	F
10.	Copper	27.7	P	22.	Tin	22u	P
11.	Iron	28700	P	23.	Vanadium	[15.0]	P
12.	Lead	11.8 S R *	F J	24.	Zinc	61.7	P

Cyanide 5.8u R Color Percent Solids (%) 86.7

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager: ~~Ken Erondu~~ Candace Friday for Ken Erondu

000011

Spectrix O.C. trol # 8055-05 8/8

Form III A

Q. C. Report No. 157

BLANKS

LAB NAME Spex/Hon

DATE 10-24-87

CASE NO. 8055

UNITS µg/L

Matrix Water

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	mg/kg Preparation Blank 1	2
Metals:							
1. Aluminum	CDF ~~51~~ 78u	[105]	[121]	—	—	39u	
2. Antimony	50u	52u	50u	—	—	25u	
3. Arsenic	5u	5u	5u	5u	5u	2.5u	
4. Barium	23u	23u	23u	23u	—	11u	
5. Beryllium	2u	2u	2u	2u	—	1u	
6. Cadmium	5u	5u	5u	5u	—	2.5u	
7. Calcium	310u	310u	310u	310u	—	160u	
8. Chromium	9u	9u	9u	9u	—	4.5u	
9. Cobalt	20u	20u	20u	~~3~~ CDF	—	10u	
10. Copper	9u	9u	9u	9u	—	4.5u	
11. Iron	43u	43u	43u	43u	—	22u	
12. Lead	2u	2u	2u	2u	2u	1u	
13. Magnesium	340u	340u	340u	340u	—	170u	
14. Manganese	4u	4u	4u	4u	—	2u	
15. Mercury	0.2u	0.2u	—	—	—	0.1u	
16. Nickel	25u	25u	25u	25u	—	12u	
17. Potassium	410u	410u	410u	—	—	200u	
18. Selenium	2u	2u	2u	2u	2u	1u	
19. Silver	8u	8u	8u	—	—	4u	
20. Sodium	250u	250u	250u	—	—	[195]	
21. Thallium	2u	2u	2u	—	—	1u	
22. Tin	38u	38u	38u	—	—	19u	
23. Vanadium	11u	11u	11u	11u	—	5.5u	
24. Zinc	9u	9u	9u	9u	—	4.5u	
Other:							
Cyanide	10u	10u	10u	—	—	5u	

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Spectrix D.C. 8055-05-05 trol #

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Form III B

Q. C. Report No. 157

BLANKS

LAB NAME Spex / Hou

CASE NO. 8055

DATE 10-24-87

UNITS µg/L

Matrix Water

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. Aluminum							
2. Antimony							
3. Arsenic		5u					
4. Barium							
5. Beryllium							
6. Cadmium							
7. Calcium							
8. Chromium							
9. Cobalt							
10. Copper							
11. Iron							
12. Lead		2u	2u				
13. Magnesium							
14. Manganese							
15. Mercury							
16. Nickel							
17. Potassium							
18. Selenium							
19. Silver							
20. Sodium							
21. Thallium							
22. Tin							
23. Vanadium							
24. Zinc							
Others:							
Cyanide							

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Form V

Q. C. Report No. 157 8055-05-05

SPIKE SAMPLE RECOVERY

LAB NAME Spex/Hou

DATE 10-24-87

CASE NO. 8055
EPA Sample No. MEP 514
Lab Sample ID No. 8709051-04A, 04B
Units µg/L

Matrix Soil

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	%R[1]	
Metals:						
1. Aluminum	75-125	21400	25900	NR	—	
2. Antimony	-	234	50u	500	46.8	R
3. Arsenic	-	40.0	12.5	40	69.8	R
4. Barium	-	2380	[65]	2000	111	
5. Beryllium	-	49	2u	50	98.0	
6. Cadmium	-	49	5u	50	98.0	
7. Calcium	-	143000	121000	NR	—	
8. Chromium	-	206	33	200	86.5	
9. Cobalt	-	683	[33]	500	130	R
10. Copper	-	275	31	250	97.6	
11. Iron	-	45800	45200	NR	—	
12. Lead	-	61.6	25.0	50	73.2	R
13. Magnesium	-	61200	54800	NR	—	
14. Manganese	-	1140	637	500	101	
15. Mercury	-	1.04	0.2u	1.0	104	
16. Nickel	-	546	55	500	98.2	
17. Potassium	-	5670	6620	NR	—	
18. Selenium	-	11.0	5u	10	110	
19. Silver	-	59	8u	50	118	
20. Sodium	-	[510]	[550]	NR	—	
21. Thallium	-	43.5	10u	50	87.0	
22. Tin	-	522	38u	500	104	
23. Vanadium	-	504	[45]	500	91.8	
24. Zinc	-	580	94	500	97.2	
Other:						
Cyanide	-	74.8	10u	100	74.8	R

[1] %R = [(SSR - SR)/SA] x 100

"R" - out of control

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Form VI

Q. C. Report No. 157

DC # 5055-05-05

DUPLICATES

LAB NAME Spex/Hole

DATE 10-24-87

CASE NO. 8055

EPA Sample No. MEP514

Lab Sample ID No. S709051-03A, 03B

Units µg/L

Matrix Soil

Compound	Control Limit[1]	Sample(S)	Duplicate(D)	RPD[2]	
Metals:					
1. Aluminum		25900	25300	2.34	
2. Antimony		5UN	5UN	NC	
3. Arsenic		12.5	10U	NC	
4. Barium		[165]	[80]	NC	
5. Beryllium		2U	2U	NC	
6. Cadmium		5U	5U	NC	
7. Calcium		121000	122000	0.823	
8. Chromium		COF ~~637~~ 33	22	40.0	*
9. Cobalt		[33]	[37]	NC	
10. Copper		31	29	10.0	
11. Iron		45200	44000	2.69	
12. Lead		25.0	19.7	23.7	*
13. Magnesium		54800	55000	0.364	
14. Manganese		COF ~~162~~ 637	659	3.40	
15. Mercury		0.2U	0.2U	NC	
16. Nickel		55	59	7.02	
17. Potassium		6620	[4770]	NC	
18. Selenium		5U	5U	NC	
19. Silver		8U	8U	NC	
20. Sodium		[550]	[500]	NC	
21. Thallium		10U	10U	NC	
22. Tin		38U	38U	NC	
23. Vanadium		~~[33]~~ [45]	[36]	NC	
24. Zinc		94 bm	113	18.4	
Other:					
Cyanide		10U	10U	NC	

* Out of Control

1 To be added at a later date.

2 RPD = [|S - D|/((S + D)/2)] x 100

NC = Not calculable RPD due to reported less than CRDL

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8055-05-05

Form VII

Q.C. Report No. 157

INSTRUMENT DETECTION LIMITS AND

LABORATORY CONTROL SAMPLE

LAB NAME Spex/Hou

DATE 10-24-87

CASE NO. 8055

LCS UNITS ug/L mg/kg

(Circle One)

Compound	Required Detection Limits (CRDL)-ug/l	Instrument Detection Limits (IDL)-ug/l ICP/AA	Furnace	Lab Control Sample True	Found	%R
Metals:						
Aluminum	200	78		1980	2070	104
Antimony	60	50		1090	1140	105
Arsenic	10		*~~4~~ 5	49.4	41.65	84.2
Barium	200	23		1980	2080	105
Beryllium	5	2		481	436	90.6
Cadmium	5	5		489	436	89.2
Calcium	5000	310		49800	52200	105
Chromium	10	9		506	422	83.4
Cobalt	50	20		474	480	101
Copper	25	9		542	469	86.5
Iron	100	43		1990	1980	99.5
Lead	5		2	97.9	99.65	102
Magnesium	5000	340		25000	25600	102
Manganese	15	4		513	454	88.5
Mercury	0.2 CN		0.15	5.2	5.71	110
Nickel	40			496	415	83.7
Potassium	5000	410		50200	45100	89.8
Selenium	5		2	98.2	109.5	111
Silver	10	8		509	525	103
Sodium	5000	250		50700	45900	90.5
Thallium	10		2	97.3	95.2	97.8
Tin	40	38		1000	937	93.7
Vanadium	50	11		511	449	87.9
Zinc	20	9		3100	2680	86.4
Other:						
					000020	
Cyanide	10	NR		500	466	93.2

*Analyses were done by both PE560 & PE3030Z; the higher IDL is 5ppb.

CENTRAL REGIONAL LABORATORY SAMPLE DATA REPORT
ORGANICS/INORGANICS

SAMPLE DATES: 9/17-18/87
LOGIN DATE: 9/30/87
DUE DATE: 11/30/87

SUPERFUND 4/4-8

THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

CASE NUMBER/SAS No. 8055 SITE NAME U.S. Scrap LABORATORY Hazlet/Spreco DATE SHIPPED 9/17,18/87

SUPERFUND DU NUMBER 9905 EPA RPM or OSC (S.M.S.)/(CES) CERCLIS NUMBER NJD980604484 PAGE 1 OF 1

ACTIVITY NUMBER 012100

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	INORGANIC TRAFFIC REPORT NUMBER	WATER OR LIQUIDS: ACID BASE NEUTRAL CPDS ORGANIC SCAN UG/L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG/L TOX17564	WATER POLYCHLORINATED BIPHENYLS UG/L PES17144	WATER CHLORINATED PESTICIDES UG/L PES17134	TOTAL METALS IN WATER UG/L MET1111	WATER CYANIDE UG/L MIN74919	NITRATE NITRITE MG/L MIN7284	AMMONIA MG/L MIN7294	RESIDUE FILTERABLE TDS MG/L MIN7362	RESIDUE, NON-FILT TSS MG/L MIN7372			SEDIMENTS or SOILS: ACID BASE NEUTRAL CPDS ORGANIC SCAN MG/KG TOX215722	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG/KG TOX215622	SEDIMENTS POLYCHLORINATED BIPHENYLS MG/KG PES211422	SEDIMENT CHLORINATED PESTICIDES MG/KG 211322	TOTAL METALS MG/KG MET413	CYANIDE MG/KG MIN44930	EP TOXICITY METALS MG/KG	AMMONIA MG/KG MIN42925				
87FC19525	EP486	MEP514													✓	✓	✓	✓	✓	✓						
87FC19524	EP487	MEP515														✓			✓	✓						
87FC19529	EP488	MEP516													✓	✓	✓	✓	✓	✓						

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International Specialists in the Environment

CRL Receipt Date 12-9-87 FIT Receipt Date 3-11-88 Review Completed 3-15-88

TO: J. CARMAN
FROM: James Mertes
SUBJECT: U.S. SCRAP
PAN: IL0102 (1 hour charged for review) Case # 8167

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
# 5	Low Soil	#	Low Soil
	Low Water		Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status _____ Completed!!

X Incomplete, awaiting 2 Soil Inorg

FIT Data Review Findings:

- See Reviewers Summary,
- Volatiles were Reanalyzed - due to GC/MS problems according to the lab. See Reviewer for which data set to use (T. Clay)

Check Data Sheets for Transcription Errors

X Compounds were detected in sample(s); see enclosed sheet.

Book No. 7 Page No. 32, 39 Date Sampled 10-1/7/8-87

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U.S. SCRAP
Case # 8167

COMPOUND	EN 538	EN 538	EN 539	EN 539RE	EN 540	EN 540RE	EN 541	EN 541RE	EN 542	EN 542RE
chloromethane										
bromomethane										
vinyl chloride	7J	280								
chloroethane										
methylene chloride	620B	540B	1300B	280B	2300B	840B	380B	52B	500	370B
acetone	91B		65B		110B	160	95	.18J	97B	180B
carbon disulfide	.8J		1J	4J	3J	6	1J		5J	10
1,1-dichloroethene										
1,1-dichloroethane										
trans-1,2,-dichloroethene		5J								
chloroform										1J
1,2-dichloroethane	1J	3J		29	4J	15	1J		22	5B
2-butanone	28B	190B	28B	290B	33B	31	24	15B	25B	30B
1,1,1-trichloroethane				6J	.7J					
carbon tetrachloride										
vinyl acetate							.03BJ	.06J		.002J
bromodichloromethane										
1,1,2,2-tetrachloroethane										
1,2-dichloropropane										
trans-1,3-dichloropropene										
trichloroethene						.3J			.2J	.9J
dibromochloroethane										
1,1,2-trichloroethane						2J			3J	13
benzene	B									
cis-1,3-dichloropropene										
2-chloroethylvinylether										
bromoform										
2-hexanone										
4-methyl-2-pentanone										
tetrachloroethene				0.9J		.8J			2BJ	5J
toluene	2J	58J	3J	22JB	14	23B	8B	25B	30B	61B
chlorobenzene										
ethylbenzene	250B	65B	.4BJ			.2J				.3BJ
styrene										1J
total xylenes	550B	99B	1BJ		1BJ	.4J	.4J			.8BJ
N-nitrosodimethylamine										
phenol		N/A			27J	N/A		N/A		N/A
aniline				N/A						
bis(2-chloroethyl)ether										
2-chlorophenol										
1,3-dichlorobenzene										
1,4-dichlorobenzene										
benzyl alcohol										
1,2-dichlorobenzene										
2-methylphenol										
bis(2-chloroisopropyl)ether										
4-methylphenol										
N-nitroso-di-n-propylamine	33J									
hexachloroethane										
nitrobenzene										
isophrone										
2-nitrophenol										
2,4-dimethylphenol										
benzoic acid										
bis(2-chloroethoxy)methane										
2,4-dichlorophenol										
1,2,4-trichlorobenzene										
napthalene	93J						21J			
4-chloroaniline							62J			
hexachlorobutadiene										
4-chloro-3-methylphenol										
2-methylnapthalene	28J		39J				31J			
hexachlorocyclopentadiene										
2,4,6-trichlorophenol										
2,4,5-trichlorophenol										
2-chloronaphthalene										
2-nitroaniline										
dimethyl phthalate	56BJ				41BJ					
acenapthylene										
3-nitroaniline										
acenaphthene										
2,4-dinitrophenol										
4-nitrophenol										
dibenzofuran							13J			
2,4-dinitrotoluene										
2,6-dinitrotoluene										
diethylphthalate										
4-chlorophenyl-phenylether										
fluorene										
4-nitroaniline										
4,6-dinitro-2-methylphenol										
N-nitrosodiphenylamine										
4-bromophenyl-phenylether										

U.S. SCRAP

Case # 8167

COMPOUND	EN 538	EN 538RE	EN 539	EN 539RE	EN 540	EN 540RE	EN 541	EN 541RE	EN 542	EN 542RE
pentachlorophenol		N/A		N/A		N/A		N/A		N/A
phenanthrene	22 J		39 J		38 J		47 J		18 J	
anthracene	22 J		39 J				47 J		18 J	
~~di-n-butylphthalate~~	~~120 B~~		~~210 BJ~~		~~1300 B~~		~~210 BJ~~		~~110 BJ~~	
fluoranthene	20 J						44 J			
benzidine										
pyrene	33 J						39 J			
butylbenzylphthalate	110 J		77 J		69 J		100 J		95 J	
3,3'-dichlorobenzidine										
benzo(a)anthracene										
bis(2-ethylhexyl)phthalate	440 B		~~120 BJ~~		~~270 BJ~~		~~710 B~~		~~260 BJ~~	
chrysene							57 J			
di-n-octylphthalate	190 J				98 J					
benzo(b&k)fluoranthene										
benzo(a)pyrene										
indeno(1,2,3-cd)pyrene										
dibenzo(a,h)anthracene										
benzo(g,h,i)perylene										
alpha-BHC										
beta-BHC										
delta-BHC										
gamma-BHC(lindane)										
heptachlor										
aldrin										
heptachlor epoxide										
endosulfan I										
dieldrin										
4,4'-DDE										
endrin										
endosulfan II										
4,4'-DDD			5 J							
endrin aldehyde										
endosulfan sulfate										
4,4'-DDT										
methoxychlor										
endrin ketone										
chlordane										
toxaphene										
Aroclor-1016										
Aroclor-1221										
Aroclor-1232										
Aroclor-1242										
Aroclor-1248										
Aroclor-1254										
Aroclor-1260										
ELEMENT										
aluminum										
antimony										
arsenic										
barium										
beryllium										
cadmium										
calcium										
chromium										
cobalt										
copper										
iron										
lead										
magnesium										
manganese										
mercury										
nickel										
potassium										
selenium										
silver										
sodium										
thallium										
tin										
vanadium										
zinc										
cyanide CHECK IF ANALYZED ( )										
TENTATIVELY IDENTIFIED ORGANICS										

3/11 72 pages

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 3/8/88

SUBJECT: Review of Region V CLP Data
Received for Review on 12-9-87

FROM: Curtis Ross, Director (5SCRL) Patrick J. Churilla for
Central Regional Laboratory

TO: Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME: U.S. SCRAP SMO Case No. 8167

EPA Data Set No. SF4493/4494 No. of Samples: 5 D.U./Activity Numbers Y905/C72ZZ

CRL No. 88FC01S88-S90:88FC02S41,S42

SMO Traffic No. EN538-542

CLP Laboratory: Triangle Hrs. Required for Review: 5

PAN:

Following are our findings:

(✓) Data are acceptable for use.
(✓) Data are acceptable for use with qualifications referenced above. See Data Qualifier sheets and Calibration Outlier forms for flags and additional comments.
( ) Data are preliminary - pending verification by Contractor Laboratory. See Case Summary above.
( ) Data are unacceptable.

cc: Carla Dampsey, CLP Quality Assurance Officer, Analytical Operations Branch James Petty, Chief Quality Assurance Researach, EMSL, Las Vegas.

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Compound Sample Blank CRQL

	Compound	Sample	Blank	CRQL	Volatile
EN 538	Ethylbenzene	250B	0.3	5	HRS
	Xylene	550B	1.0	5	HRS
	*Methylene Chloride	850B	3	5	HRS
	Vinyl Chloride	77	10U	10	HRS
	1,2-dichloroethane	1J	5U	5	--
	Benzene	8	5U	5	--
EN539	Methylene Chloride	1300B	3	5	HRS
EN540	Methylene Chloride	2300B	3	5	HRS
EN541	Methylene Chloride	380B	10	5	HRS
EN542	Methylene Chloride	500	5U	5	HRS

Special Considerations

A check of the volatile blanks against the samples indicate that the level found in the blanks would not account for the large hits for methylene chloride, ethylbenzene and total xylene. Since these hits are 10X the blank value they can be used for HRS. Check the OADS form for other volatile values.

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U.S. Scrap Case 8167

This case covers 5 soil samples for VOA, SV and Pesticide analysis.

A. Holding Times: ACCEPTABLE

B. Surrogates: Surrogates are acceptable

VOA	11 of 66 out
SV	1 of 54 out
Pest	0 of 9

C. MS/MSD:

	%R	R%D
VOA	2/10 out	1/5 out
SV	4/22 out	0/11 out
Pest	---	0/6 out

All of the %R for pesticides were either 0 or below contract requirements. The lab narrative did not explain the problem.

D. Method Blank: The volatile method blanks had hits similar to some of the samples. The level found in the blanks is for smaller than found in the sample. The blank hits are listed on the related ODAS samples forms. The method blanks are acceptable.

E. Calibrations: Acceptable
See calibration form

F. Tuning: Acceptable

G. Internal Standards: Acceptable

H. Pesticides: Acceptable
See Pesticide MS/MSD

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V

CALIBRATION OUTLIERS

VOLATILE HSL COMPOUNDS

CASE/SAS # 8167

CONTRACTOR Tulsa

Instrument # B	Init. Cal.			Cont. Cal. 10:06			Cont. Cal. 11:36			Cont. Cal. 11:01			Cont. Cal.		
DATE/TIME:	10/30/87			10/30/87			11/5/87			11/11/87			11/12/87		
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane								31	J		41	J			
Bromomethane					66	J		67	J		97	J		104	J
Vinyl Chloride															
Chloroethane														26	J
Methylene Chloride															
Acetone											41	J		47	J
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone	.146		J	.146		J	.161		J	.154		J	.155		J
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate					27	J								43	J
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene								34	J						
Trichloroethene															
Dibromochloromethane											44	J		62	J
1,1,2-Trichloroethane														39	J
Benzene															
cis-1,3-Dichloropropene														53	J
2-Chloroethylvinylether															
Bromoform											46	J		74	J
4-Methyl-2-Pentanone															
2-Hexanone		33	J												
Tetrachloroethene															
1,1,2,2-Tetrachloroethane														27	J
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															
	5H						EN 541RF			EN 538RF			EN 546		
							EN 542RF			EN 539RF			EN 540RF		

AFFECTED SAMPLES:

Reviewer's Initials/Date: [illegible]

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V

CALIBRATION OUTLIERS

VOLATILE HSL COMPOUNDS

CASE/SAS # 8167 ~~11/5/87~~ 9:26 CONTRACTOR Fulat

Instrument # B	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	10/30/87			11/4/87											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane					37	J									
Bromomethane					97	J									
Vinyl Chloride															
Chloroethane															
Methylene Chloride	See														
Acetone					121	J									
Carbon Disulfide	first														
1,1-Dichloroethane															
1,1-Dichloroethene	from														
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone				.141		J									
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate															
Bromodichloromethane					30	J									
1,2-Dichloropropane															
Trans-1,3-Dichloropropene					31	J									
Trichloroethene															
Dibromochloromethane					34	J									
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform					29	J									
4-Methyl-2-Pentanone															
2-Hexanone															
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

~~EN 540~~
EN 540RE
EN 541
~~EN 541RE~~
~~EN 547RE~~

Reviewer's Initials/Date: 8/15/88

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V

CALIBRATION OUTLIERS

VOLATILE HSL COMPOUNDS

CASE/SAS # 8167 CONTRACTOR Tetra Tech

Instrument # B	Init. Cal.			Cont. Cal. 12HH			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	10/7/87			10/7/87											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane															
Bromomethane															
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone															
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone	.166		J	.151		J									
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate															
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform															
4-Methyl-2-Pentanone															
2-Hexanone															
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

EN 539
539
5H0
539MS
539MSD

Reviewer's Initials/Date: 2 Mar 88

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE/SAS # 8167 CONTRACTOR Tritab

13:18

Instrument # B	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	10/19/87			10/19/87											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane					44	J									
Bromomethane															
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone					38	J									
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone	.209		J	.208		J									
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate															
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform					26	J									
4-Methyl-2-Pentanone					31	J									
2-Hexanone															
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES: Std
EN 5H2

Reviewer's Initials/Date: [illegible] 88

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

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

CASE/SAS # 8167 CONTRACTOR Zailab

Instrument # A	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. C	
DATE/TIME: 1	10/17/87													
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D
Phenol														
bis(-2-Chloroethyl)Ether														
2-Chlorophenol														
1,3-Dichlorobenzene														
1,4-Dichlorobenzene														
Benzyl Alcohol														
1,2-Dichlorobenzene														
2-Methylphenol														
bis(2-chloroisopropyl)Ether														
4-Methylphenol														
N-Nitroso-Di-n-Propylamine														
Hexachloroethane														
Nitrobenzene														
Isophorone														
2-Nitrophenol														
2,4-Dimethylphenol					30	J								
Benzoic Acid		38	J											
bis(2-Chloroethoxy)Methane														
2,4-Dichlorophenol														
1,2,4-Trichlorobenzene														
Naphthalene														
4-Chloroaniline														
Hexachlorobutadiene														
4-Chloro-3-Methylphenol														
2-Methylnaphthalene														
Hexachlorocyclopentadiene					25	J								
2,4,6-Trichlorophenol														
2,4,5-Trichlorophenol														
2-Chloronaphthalene														
2-Nitroaniline														
Dimethyl Phthalate														
Acenaphthylene														
3-Nitroaniline														
Acenaphthene														
2,4-Dinitrophenol		46	J		37	J								
4-Nitrophenol					31	J								
Dibenzofuran														

AFFECTED SAMPLES:

Std	FN 538			
	539			
	540			
	541			
	542			
	538MS			
	538MSD			

Reviewer Initials/Date: [signature] 2 Nov 87

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
Page 2

CASE/SAS # 8167 CONTRACTOR Tvilat

~~10:40~~ 1646

Instrument # A	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. (	
DATE/TIME:	10/17/87			10/17/87										
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D
2,4-Dinitrotoluene														
2,6-Dinitrotoluene														
Diethylphthalate														
4-Chlorophenyl-phenylether														
Fluorene														
4-Nitroaniline		-												
4,6-Dinitro-2-Methylphenol														
N-Nitrosodiphenylamine														
4-Bromophenyl-phenylether					32	J								
Hexachlorobenzene														
Pentachlorophenol														
Phenanthrene														
Anthracene														
Di-n-Butylphthalate														
Fluoranthene														
Pyrene														
Butylbenzylphthalate														
Benzo(a)Anthracene														
bis(2-Ethylhexyl)Phthalate														
Chrysene														
Di-n-Octyl Phthalate														
Benzo(b)Fluoranthene					30	J								
Benzo(k)Fluoranthene														
Benzo(a)Pyrene														
Indeno(1,2,3-cd)Pyrene		47	J		31	J								
Dibenz(a,h)Anthracene					28	J								
Benzo(g,h,i) Perylene														

SEE PAGE 1 FOR AFFECTED SAMPLES.

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

Reviewer's Initials/Date: [signature] 2 Nov 88

8/8

Case: 8167

Contractor: Trilab

TENTATIVELY IDENTIFIED COMPOUNDS
WATCH ASSESSMENT

NOTE: Reviewer should note directly on Organic Analysis Data Sheet (OADS) those matches that in his opinion (based on contract criteria) are unreasonable.

CRITERIA

(1) Relative intensities of major ions (>10%) reference spectrum should be present in the sample spectrum.

(2) Relative intensities of major ions in sample spectrum should agree to within ± 20% of reference spectrum intensities.

(3) Molecular ions present in reference spectrum should be present in sample spectrum.

(4) Ions present in sample spectrum, but not in reference spectrum should be reviewed for possible background contamination or presence of coeluting interferences.

(5) Ions present in reference spectrum, but not in the sample spectrum should be reviewed for possible subtraction from the sample spectrum because of background contamination or coeluting interferences.

(6) If, in the reviewer's opinion, no valid identification can be made the compound should be labelled as "unknown" and the initials and date of the reviewer placed on the OADS.

Reviewer's Initials/Date: [illegible] 9-Mar 87

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NOV 18 1987
U.S. EPA, CENTRAL REGIONAL LAB.
536 S. CLARK STREET
CHICAGO, ILLINOIS 60605

CASE NARRATIVE
TRIANGLE LABORATORIES, INC
CASE 8167
SDG EN538

DATE: November 17, 1987
CLIENT NO: 8167
TLI NO: 8801671
OBJECTIVE: Analysis of samples for volatile, semi-volatile, pesticide compounds.

The samples were extracted and analyzed according to EPA Statement of work for contract 68-01-7407.

Internal standards were added immediately prior to analysis by GC/MS.

The GC and GC/MS analysis conditions are listed below:

VOLATILES:

Purge and trap:	Tekmar LSC-2
Purge:	10 min.
Desorb Temperature:	180C
Desorb Time:	4 min.
GC:	
Column:	30m x .53 mm DB624
Program:	10C hold 5min to 100C at 6C/min
MS:	
Instrument:	VG 12-250, 11-250 data system
Scan:	35-260 amu at 1s/scan
Source Temperature:	160C
Interface:	Jet Separator, 170C

SEMIVOLATILES:

GC CONDITIONS:

Column:	J&W DB-5, 30m x .32 x 25micron film thickness
Program:	40C hold 3 min to 300C at 8C/min hold 2.0 min

MS CONDITIONS:

Instrument:	VG 20-250, 11-250 data system
Scan:	35-510 amu at 1s/scan
Ion Source:	180C
Interface:	Capillary 270C

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Sample numbers	Volatiles	Semivolatiles	Pesticides
EN538	MS,MSD	MS,MSD	MS,MSD
EN539			
EN540			
EN541			
EN542			

Forms and diskettes are submitted in Format B using software obtained from W.L. Budde of EPA in Cincinnatti. Problems with the VOA GC/MS caused many of the samples to be rerun several times. It was necessary to run several of the volatile samples with a 1 gram aliquot. All data are reported.

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Robert E. Adams, Ph.D.
Manager, Organic Analysis
November 17, 1987

2B

SOIL VOLATILE SURROGATE RECOVERY

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
1	VBLK	99	110	84		0
2	EN538	104	101	84		0
3	EN539	116	83	78		0
4	EN540	121 *	76	80		1
5	EN538MS	115	89	79		0
6	EN538MSD	108	91	79		0
7	VBLK	149 *	91	98		1
8	EN542	176 *	60 *	89		2
9	VBLK	100	115	95		0
10	EN540 RE	125 *	80	104		1
11	EN541	125 *	92	98		1
12	VBLK	97	112	102		0
13	EN541 RE	251 *	479 *	55 *		3
14	EN542 RE	124 *	74	105		1
15	VBLK	100	100	100		0
16	EN538 RE	100	100	100		0
17	EN539 RE	100	100	100		0
18	VBLK	97	97	95		0
19	EN540	113	106	126 *		1
20	EN540 RE	102	100	116		0
21	VBLK	107	120	104		0
22	EN539 RE	105	109	93		0
23						
24						
25						
26						
27						
28						
29						
30						

11 of 66

		QC LIMITS
S1 (TOL)	= Toluene-d8	(81-117)
S2 (BFB)	= Bromofluorobenzene	(74-121)
S3 (DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

001

FORM II VOA-2 1/87 Rev.

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

ab Name: TRILAB Contract: 68-01-7407

ab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

Matrix Spike - EPA Sample No.: EN538 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	53.	0.	25.	47. *	59-172
Trichloroethene	53.	0.	43.	82.	62-137
Benzene	53.	8.	47.	73.	66-142
Toluene	53.	2.	57.	104.	59-139
Chlorobenzene	53.	0.	51.	96.	60-133

COMPOUND	SPIKE ADDED (UG/KG)	MSD CONCENTRATION (UG/KG)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	53.	26.	50. *	5.	22	59-172
Trichloroethene	53.	60.	115.	33. *	24	62-137
Benzene	53.	46.	72.	2.	21	66-142
Toluene	53.	55.	101.	3.	21	59-139
Chlorobenzene	53.	51.	97.	2.	21	60-133

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

* Values outside of QC limits

D: 1 out of 5 outside limits
pike Recovery: 2 out of 10 outside limits

MMENTS:

2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
1	SBLK	99	87	86	85	114	120		0
2	EN538	91	75	126	93	91	118		0
3	EN539	28	34	19	28	28	17 *		1
4	EN540	88	75	64	87	90	84		0
5	EN541	114	99	64	104	110	118		0
6	EN542	27	32	34	31	29	51		0
7	EN538MS	87	69	57	77	92	90		0
8	EN538MSD	68	62	56	71	74	111		0
9	SBLK	48	73	112	96	76	120		0
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

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

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

000

001

FORM II SV-2 1/87 Rev.

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

Matrix Spike - EPA Sample No.: EN538 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (UG/KG)	SAMPLE CONCENTRATION (UG/KG)	MS CONCENTRATION (UG/KG)	MS % REC #	QC LIMITS REC.
Phenol	3518.	0.	3158.	90.	26- 90
2-Chlorophenol	3518.	0.	3420.	97.	25-102
1,4-Dichlorobenzene	1759.	0.	1300.	74.	28-104
N-Nitroso-di-n-prop.(1)	1759.	33.	1543.	86.	41-126
1,2,4-Trichlorobenzene	1759.	0.	1528.	87.	38-107
4-Chloro-3-methylphenol	3518.	0.	3503.	100.	26-103
Acenaphthene	1759.	0.	1256.	71.	31-137
4-Nitrophenol	3518.	0.	3711.	106.	11-114
2,4-Dinitrotoluene	1759.	0.	1620.	92. *	28- 89
Pentachlorophenol	3518.	0.	1326.	38.	17-109
Pyrene	1759.	33.	1549.	86.	35-142

COMPOUND	SPIKE ADDED (UG/KG)	MSD CONCENTRATION (UG/KG)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	3518.	3010.	86.	5.	35	26- 90
2-Chlorophenol	3518.	3355.	95.	2.	50	25-102
1,4-Dichlorobenzene	1759.	1321.	75.	2.	27	28-104
N-Nitroso-di-n-prop.(1)	1759.	1580.	88.	2.	38	41-126
1,2,4-Trichlorobenzene	1759.	1517.	86.	1.	23	38-107
4-Chloro-3-methylphenol	3518.	3630.	103. *	4.	33	26-103
Acenaphthene	1759.	1341.	76.	7.	19	31-137
4-Nitrophenol	3518.	5616.	160. *	41.	50	11-114
2,4-Dinitrotoluene	1759.	2015.	115. *	22.	47	28- 89
Pentachlorophenol	3518.	1057.	30.	23.	47	17-109
Pyrene	1759.	1575.	88.	2.	36	35-142

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

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

* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 4 out of 22 outside limits

COMMENTS:

002

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (DBC)#	OTHER
1	PBLK	38	
2	EN538	44	
3	EN538MS	36	
4	EN538MSD	34	
5	EN 539	29	
6	EN 540	35	
7	PBLK	26	
8	EN 541	40	
9	EN 542	37	
10			
11			
12			
13			
14			
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19			
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21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

ADVISORY QC LIMITS

S1 (DBC) = Dibutyl Chlorendate (20-150)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

001

FORM II PEST-2 1/87 Rev.

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SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

Matrix Spike - EPA Sample No.: EN538 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (UG/KG)	SAMPLE CONCENTRATION (UG/KG)	MS CONCENTRATION (UG/KG)	MS % REC #	QC LIMITS REC.
gamma-BHC(Lindane)	26.73	.00	.00	0. *	46-127
Heptachlor	26.73	.00	.00	0. *	35-130
Aldrin	26.73	.00	.00	0. *	34-132
Dieldrin	66.66	.00	12.72	19. *	31-134
Endrin	66.66	.00	19.78	30. *	42-139
4,4'-DDT	66.66	.00	8.63	13. *	23-134

COMPOUND	SPIKE ADDED (UG/KG)	MSD CONCENTRATION (UG/KG)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC(Lindane)	26.73	.00	0. *	*#NA	50	46-127
Heptachlor	26.73	.00	0. *	*#NA	31	35-130
Aldrin	26.73	.00	0. *	*#NA	43	34-132
Dieldrin	66.66	18.03	27. *	34.	38	31-134
Endrin	66.66	13.80	21. *	36.	45	42-139
4,4'-DDT	66.66	8.18	12. *	5.	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: 12 out of 12 outside limits

COMMENTS:

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4A

VOLATILE METHOD BLANK SUMMARY

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Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

Lab File ID: V8620 Lab Sample ID: _____

Date Analyzed: 10/ 7/87 Time Analyzed: 16:25

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

Instrument ID: B B

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	EN538		V8621	17:17
2	EN539		V8622	17:53
3	EN540		V8623	18:31
4	EN538MS		V8624	19:02
5	EN538MSD		V8625	19:37
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

003

FORM IV VOA 1/87 Rev.

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/mL) G Lab File ID: V8620

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

% Moisture: not dec. 0. Date Analyzed: 10/ 7/87

Column: (pack/cap) CAP Dilution Factor: 1.0000

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	3.	J
67-64-1	Acetone	7.	J
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	14.	
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	.3	J
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	1.	J

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/mL) G Lab File ID: V8620

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

% Moisture: not dec. 0. Date Analyzed: 10/ 7/87

Column: (pack/cap) CAP Dilution Factor: 1.0000

Number TICs found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	3.12	50.	J
2.	124-38-9	CARBON DIOXIDE	.66	80.	J
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

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VOLATILE METHOD BLANK SUMMARY

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

Lab File ID: V8679 Lab Sample ID: _____

Date Analyzed: 10/19/87 Time Analyzed: 17:36

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

Instrument ID: B B

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	EN542		V8680	19:11
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
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COMMENTS:

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/mL) G Lab File ID: V8679

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

% Moisture: not dec. 0. Date Analyzed: 10/19/87

Column: (pack/cap) CAP Dilution Factor: 1.0000

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	5.	U
67-64-1	Acetone	36.	
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	19.	
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	.2	J
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	.7	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

406

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/mL) G Lab File ID: V8679

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

% Moisture: not dec. 0. Date Analyzed: 10/19/87

Column: (pack/cap) CAP Dilution Factor: 1.0000

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	124-38-9	CARBON DIOXIDE	.40	80.	J
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VOLATILE METHOD BLANK SUMMARY

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ecology and environment

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

Lab File ID: V8785 Lab Sample ID: _____

Date Analyzed: 11/ 4/87 Time Analyzed: 12:29

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

Instrument ID: B B

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	EN540RE		V8786	13:14
2	EN541		V8787	13:58
3				
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COMMENTS:

005

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/mL) G Lab File ID: V8785

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

% Moisture: not dec. 0. Date Analyzed: 11/ 4/87

Column: (pack/cap) CAP Dilution Factor: 1.0000

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/mL) G Lab File ID: V8785

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

% Moisture: not dec. 0. Date Analyzed: 11/ 4/87

Column: (pack/cap) CAP Dilution Factor: 1.0000

Number TICs found: 4

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	1077-16-3	BENZENE, HEXYL-	20.47	9.	J
2.	124-38-9	CARBON DIOXIDE	.68	7.	J
3.	- -	UNKNOWN	3.20	7.	J
4.	- -	UNKNOWN	5.95	7.	J
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ecology and environment

4B

SEMIVOLATILE METHOD BLANK SUMMARY

recycled paper

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

Lab File ID: Q8027011 Lab Sample ID:_____

Date Extracted: 10/ 5/87 Extraction:(SepF/Cont./Sonc)

Date Analyzed: 10/17/87 Time Analyzed: 17:44

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

Instrument ID: A A

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	EN538		Q8027031	10/17/87
2	EN539		Q8027041	10/17/87
3	EN540		Q8027051	10/17/87
4	EN538MS		Q8027081	10/17/87
5	EN538MSD		Q8027091	10/18/87
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COMMENTS:

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FORM IV SV

1/87 Rev.

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

Lab File ID: Q8028 Lab Sample ID: _____

Date Extracted: 10/13/87 Extraction:(SepF/Cont/Sonc)

Date Analyzed: 10/18/87 Time Analyzed: 3:31

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

Instrument ID: A A

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	EN541		Q8027061	10/17/87
2	EN542		Q8027071	10/17/87
3				
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COMMENTS:

004

FORM IV SV 1/87 Rev.

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN538 RE

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 1. (g/mL) G Lab File ID: V8840

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 5. Date Analyzed: 11/11/87

Column: (pack/cap) CAP Dilution Factor: .2100

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	50.	U
74-83-9	Bromomethane	50.	U
75-01-4	Vinyl Chloride	280.	
75-00-3	Chloroethane	50.	U
75-09-2	Methylene Chloride	540.	B
67-64-1	Acetone	50.	U
75-15-0	Carbon Disulfide	25.	U
75-35-4	1,1-Dichloroethene	25.	U
75-34-3	1,1-Dichloroethane	25.	U
540-59-0	1,2-Dichloroethene (total)	5.	J
67-66-3	Chloroform	25.	U
107-06-2	1,2-Dichloroethane	3.	J
78-93-3	2-Butanone	190.	B
71-55-6	1,1,1-Trichloroethane	25.	U
56-23-5	Carbon Tetrachloride	25.	U
108-05-4	Vinyl Acetate	50.	U
75-27-4	Bromodichloromethane	25.	U
78-87-5	1,2-Dichloropropane	25.	U
10061-01-5	cis-1,3-Dichloropropene	25.	U
79-01-6	Trichloroethene	25.	U
124-48-1	Dibromochloromethane	25.	U
79-00-5	1,1,2-Trichloroethane	25.	U
71-43-2	Benzene	25.	U
10061-02-6	trans-1,3-Dichloropropene	25.	U
75-25-2	Bromoform	25.	U
108-10-1	4-Methyl-2-Pentanone	50.	U
591-78-6	2-Hexanone	50.	U
127-18-4	Tetrachloroethene	25.	U
79-34-5	1,1,2,2-Tetrachloroethane	25.	U
108-88-3	Toluene	5.	BJ
108-90-7	Chlorobenzene	25.	U
100-41-4	Ethylbenzene	65.	B
100-42-5	Styrene	25.	U
1330-20-7	Xylene (total)	99.	B

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FORM I VOA 1/87 Rev 042

ecology and environment

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN538

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/mL) G Lab File ID: V8621

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 5. Date Analyzed: 10/ 7/87

Column: (pack/cap) CAP Dilution Factor: 1.0000

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	77.	
75-00-3	Chloroethane	11.	U
75-09-2	Methylene Chloride	850.	B
67-64-1	Acetone	91.	B
75-15-0	Carbon Disulfide	1.8	J
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	1.	J
78-93-3	2-Butanone	28.	B
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	11.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	8.	
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	11.	U
591-78-6	2-Hexanone	11.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	2.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	250.	B
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	550.	B

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ecology and environment

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

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EPA SAMPLE NO.

EN538

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027031

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 5. dec. 5. Date Extracted: 10/ 5/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	bis(2-Chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	350.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	bis(2-Chloroisopropyl)ether	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	33.	J
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	350.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	93.	J
106-47-8	4-Chloroaniline	350.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	350.	U
91-57-6	2-Methylnaphthalene	28.	J
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	56.	BJ
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN538

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027031

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 5. dec. 5. Date Extracted: 10/ 5/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	350.	U
86-30-6	N-Nitrosodiphenylamine(1)	1800.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	22.	J
120-12-7	Anthracene	22.	J
84-74-2	Di-n-butylphthalate	1200.	B
206-44-0	Fluoranthene	20.	J
129-00-0	Pyrene	33.	J
85-68-7	Butylbenzylphthalate	110.	J
91-94-1	3,3'-Dichlorobenzidine	350.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	440.	B
117-84-0	Di-n-octylphthalate	190.	J
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from diphenylamine

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN538

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: C1077

Level: (low/med) LOW Date Received: 10/ 1/87

% Moisture: not dec. 5. dec. 0. Date Extracted: 10/ 5/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/16/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN538

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027031

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 5. dec. 5. Date Extracted: 10/ 5/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

Number TICs found: 19

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN ALDOL CONDENSATION	4.48	90000.	J
2.	- -	UNKNOWN	3.77	4000.	J
3.	10544-50-0	SULFUR,MOL	24.90	2000.	J
4.	2216-33-3	OCTANE, 3-METHYL	4.87	3000.	BJ
5.	- -	UNKNOWN PHTHALATE	22.77	900.	J
6.	- -	UNKNOWN HYDROCARBON	4.70	1000.	J
7.	- -	UNKNOWN	6.23	1000.	J
8.	- -	UNKNOWN KETONE C6	3.20	1000.	J
9.	- -	UNKNOWN KETONE C7	6.67	1000.	J
10.	- -	UNKNOWN	7.73	1000.	J
11.	- -	UNKNOWN	8.90	800.	J
12.	- -	UNKNOWN HYDROCARBON	18.98	300.	J
13.	- -	UNKNOWN AROMATIC	24.45	300.	J
14.	- -	UNKNOWN HYDROCARBON	16.03	200.	J
15.	- -	UNKNOWN	11.85	300.	J
16.	- -	UNKNOWN HYDROCARBON	20.47	200.	J
17.	- -	UNKNOWN HYDROCARBON	20.55	200.	J
18.	- -	UNKNOWN	27.00	400.	J
19.	- -	UNKNOWN	10.98	200.	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN538 RE

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 1. (g/mL) G Lab File ID: V8840

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 5. Date Analyzed: 11/11/87

Column: (pack/cap) CAP Dilution Factor: .2100

Number TICs found: 10

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	4889-83-2	BICYCLO 3.1.1 HEPT-2ENE, 3,6	17.72	500.	J
2.	124-38-9	CARBON DIOXIDE	.93	500.	BJ
3.	464-17-5	BICYCLO 2.2.1 HEPT-2-ENE, 1,	20.15	300.	J
4.	- -	UNKNOWN	4.10	300.	J
5.	- -	UNKNOWN	9.10	40.	J
6.	- -	UNKNOWN HYDROCARBON	20.58	100.	J
7.	586-62-9	CYCLOHEXENE, 1-METHYL-4-(1-M	20.95	100.	J
8.	99-86-5	1,3-CYCLOHEXADIENE, 1-METHYL	19.98	100.	J
9.	109-66-0	PENTANE	2.65	100.	J
10.	- -	BENZENE, 1,2,4-TRIMETHYL-	19.77	70.	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN538

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/mL) G Lab File ID: V8621

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 5. Date Analyzed: 10/ 7/87

Column: (pack/cap) CAP Dilution Factor: 1.0000

Number TICs found: 7 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN AROMATIC	18.17	400.	J
2.	124-38-9	CARBON DIOXIDE	.63	300.	BJ
3.	- -	UNKNOWN AROMATIC	17.20	100.	J
4.	- -	UNKNOWN AROMATIC	19.03	100.	J
5.	- -	UNKNOWN AROMATIC	17.38	60.	J
6.	- -	UNKNOWN AROMATIC	19.37	50.	J
7.	- -	UNKNOWN	18.25	5.	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

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EPA SAMPLE NO.

EN539

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/mL) G Lab File ID: V8622

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 3. Date Analyzed: 10/ 7/87

Column: (pack/cap) CAP Dilution Factor: 1.0000

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	1300.	B
67-64-1	Acetone	65.	B
75-15-0	Carbon Disulfide	1.	J
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	28.	B
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	3.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	.4	BJ
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	1.	BJ

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN539 RE

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 1. (g/mL) G Lab File ID: V8843

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 3. Date Analyzed: 11/11/87

Column: (pack/cap) CAP Dilution Factor: .1980

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	52.	U
74-83-9	Bromomethane	52.	U
75-01-4	Vinyl Chloride	52.	U
75-00-3	Chloroethane	52.	U
75-09-2	Methylene Chloride	2400.	B
67-64-1	Acetone	52.	U
75-15-0	Carbon Disulfide	4.	J
75-35-4	1,1-Dichloroethene	26.	U
75-34-3	1,1-Dichloroethane	26.	U
540-59-0	1,2-Dichloroethene (total)	26.	U
67-66-3	Chloroform	26.	U
107-06-2	1,2-Dichloroethane	29.	
78-93-3	2-Butanone	290.	B
71-55-6	1,1,1-Trichloroethane	6.	J
56-23-5	Carbon Tetrachloride	26.	U
108-05-4	Vinyl Acetate	52.	U
75-27-4	Bromodichloromethane	26.	U
78-87-5	1,2-Dichloropropane	26.	U
10061-01-5	cis-1,3-Dichloropropene	26.	U
79-01-6	Trichloroethene	26.	U
124-48-1	Dibromochloromethane	26.	U
79-00-5	1,1,2-Trichloroethane	26.	U
71-43-2	Benzene	26.	U
10061-02-6	trans-1,3-Dichloropropene	26.	U
75-25-2	Bromoform	26.	U
108-10-1	4-Methyl-2-Pentanone	52.	U
591-78-6	2-Hexanone	52.	U
127-18-4	Tetrachloroethene	.9	J
79-34-5	1,1,2,2-Tetrachloroethane	26.	U
108-88-3	Toluene	22.	BJ
108-90-7	Chlorobenzene	26.	U
100-41-4	Ethylbenzene	26.	U
100-42-5	Styrene	26.	U
1330-20-7	Xylene (total)	26.	U

091

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN539

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027041

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 3. dec. 3. Date Extracted: 10/ 5/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	340.	U
111-44-4	bis(2-Chloroethyl)ether	340.	U
95-57-8	2-Chlorophenol	340.	U
541-73-1	1,3-Dichlorobenzene	340.	U
106-46-7	1,4-Dichlorobenzene	340.	U
100-51-6	Benzyl alcohol	340.	U
95-50-1	1,2-Dichlorobenzene	340.	U
95-48-7	2-Methylphenol	340.	U
108-60-1	bis(2-Chloroisopropyl)ether	340.	U
106-44-5	4-Methylphenol	340.	U
621-64-7	N-Nitroso-di-n-propylamine	340.	U
67-72-1	Hexachloroethane	340.	U
98-95-3	Nitrobenzene	340.	U
78-59-1	Isophorone	340.	U
88-75-5	2-Nitrophenol	340.	U
105-67-9	2,4-Dimethylphenol	340.	U
65-85-0	Benzoic acid	340.	U
111-91-1	bis(2-Chloroethoxy)methane	340.	U
120-83-2	2,4-Dichlorophenol	340.	U
120-82-1	1,2,4-Trichlorobenzene	340.	U
91-20-3	Naphthalene	340.	U
106-47-8	4-Chloroaniline	340.	U
87-68-3	Hexachlorobutadiene	340.	U
59-50-7	4-Chloro-3-methylphenol	340.	U
91-57-6	2-Methylnaphthalene	39.	J
77-47-4	Hexachlorocyclopentadiene	340.	U
88-06-2	2,4,6-Trichlorophenol	340.	U
95-95-4	2,4,5-Trichlorophenol	340.	U
91-58-7	2-Chloronaphthalene	340.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	340.	U
208-96-8	Acenaphthylene	340.	U
606-20-2	2,6-Dinitrotoluene	340.	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN539

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027041

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 3. dec. 3. Date Extracted: 10/ 5/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	340.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	340.	U
121-14-2	2,4-Dinitrotoluene	340.	U
84-66-2	Diethylphthalate	340.	U
7005-72-3	4-Chlorophenyl-phenylether	340.	U
86-73-7	Fluorene	340.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	340.	U
86-30-6	N-Nitrosodiphenylamine(1)	1700.	U
101-55-3	4-Bromophenyl-phenylether	340.	U
118-74-1	Hexachlorobenzene	340.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	39.	J
120-12-7	Anthracene	39.	J
84-74-2	Di-n-butylphthalate	210.	BJ
206-44-0	Fluoranthene	340.	U
129-00-0	Pyrene	1700.	U
85-68-7	Butylbenzylphthalate	77.	J
91-94-1	3,3'-Dichlorobenzidine	340.	U
56-55-3	Benzo(a)anthracene	340.	U
218-01-9	Chrysene	340.	U
117-81-7	bis(2-Ethylhexyl)phthalate	120.	BJ
117-84-0	Di-n-octylphthalate	340.	U
205-99-2	Benzo(b)fluoranthene	340.	U
207-08-9	Benzo(k)fluoranthene	340.	U
50-32-8	Benzo(a)pyrene	340.	U
193-39-5	Indeno(1,2,3-cd)pyrene	340.	U
53-70-3	Dibenz(a,h)anthracene	340.	U
191-24-2	Benzo(g,h,i)perylene	340.	U

(1) - Cannot be separated from diphenylamine

047

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN 539

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: C1080

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 3. dec. 0. Date Extracted: 10/ 5/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	9.	U
319-85-7	beta-BHC	9.	U
319-86-8	delta-BHC	9.	U
58-89-9	gamma-BHC(Lindane)	9.	U
76-44-8	Heptachlor	9.	U
309-00-2	Aldrin	9.	U
1024-57-3	Heptachlor epoxide	9.	U
959-98-8	Endosulfan I	9.	U
60-57-1	Dieldrin	17.	U
72-55-9	4,4'-DDE	17.	U
72-20-8	Endrin	17.	U
33213-65-9	Endosulfan II	17.	U
72-54-8	4,4'-DDD	5.	J
1031-07-8	Endosulfan Sulfate	17.	U
50-29-3	4,4'-DDT	17.	U
72-43-5	Methoxychlor	82.	U
53494-70-5	Endrin Ketone	17.	U
5103-71-9	Alpha Chlordane	82.	U
5103-74-2	Gamma Chlordane	82.	U
8001-35-2	Toxaphene	160.	U
12674-11-2	Aroclor-1016	82.	U
11104-28-2	Aroclor-1221	82.	U
11141-16-5	Aroclor-1232	82.	U
53469-21-9	Aroclor-1242	82.	U
12672-29-6	Aroclor-1248	82.	U
11097-69-1	Aroclor-1254	160.	U
11096-82-5	Aroclor-1260	160.	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN539

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 1. (g/mL) G Lab File ID: V8843

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 3. Date Analyzed: 11/11/87

Column: (pack/cap) CAP Dilution Factor: .1980

Number TICs found: 6 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	124-38-9	CARBON DIOXIDE	.90	400.	BJ
2.	- -	UNKNOWN	9.07	50.	J
3.	110-54-3	HEXANE	5.93	60.	J
4.	- -	UNKNOWN	20.18	40.	J
5.	- -	UNKNOWN	2.65	30.	J
6.	- -	UNKNOWN	8.55	30.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN539

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027041

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 3. dec. 3. Date Extracted: 10/ 5/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN ALDOL CONDENSATION	4.30	40000.	J
2.	- -	UNKNOWN	3.62	1000.	J
3.	2216-33-3	OCTANE, 3-METHYL	4.85	1000.	BJ
4.	- -	UNKNOWN ESTER	8.90	1000.	J
5.	- -	UNKNOWN HYDROCARBON	20.55	1000.	J
6.	- -	UNKNOWN HYDROCARBON	17.42	500.	J
7.	- -	UNKNOWN HYDROCARBON	16.80	400.	J
8.	- -	UNKNOWN HYDROCARBON	7010.12	500.	J
9.	- -	UNKNOWN HYDROCARBON	14.02	500.	J
10.	- -	UNKNOWN HYDROCARBON	12.15	400.	J
11.	124-18-5	DECANE	7.92	700.	J
12.	- -	UNKNOWN HYDROCARBON	4.68	600.	J
13.	- -	UNKNOWN HYDROCARBON	18.59	300.	J
14.	- -	UNKNOWN HYDROCARBON	19.72	500.	J
15.	- -	UNKNOWN HYDROCARBON	12.42	300.	J
16.	- -	UNKNOWN HYDROCARBON	23.22	500.	J
17.	- -	UNKNOWN	6.65	500.	J
18.	- -	UNKNOWN HYDROCARBON	13.18	300.	J
19.	- -	UNKNOWN HYDROCARBON	22.00	500.	J
20.	- -	UNKNOWN	20.45	500.	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN539

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/mL) G Lab File ID: V8622

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 3. Date Analyzed: 10/ 7/87

Column: (pack/cap) CAP Dilution Factor: 1.0000

Number TICs found: 11

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN AROMATIC	16.93	200.	J
2.	124-38-9	CARBON DIOXIDE	.63	200.	BJ
3.	1758-88-9	BENZENE, 2-ETHYL-1,4-DIMETHY	19.12	200.	J
4.	- -	UNKNOWN AROMATIC	12.73	100.	J
5.	874-35-1	1H-INDENE, 2,3-DIHYDRO-5-MET	18.13	90.	J
6.	- -	UNKNOWN AROMATIC	15.65	30.	J
7.	- -	UNKNOWN HYDROCARBON	6.63	20.	J
8.	110-54-3	HEXANE	3.98	10.	J
9.	- -	UNKNOWN	5.12	8.	J
10.	- -	UNKNOWN	1.42	7.	J
11.	- -	UNKNOWN	11.50	5.	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN540 RE

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/mL) G Lab File ID: V8786

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. Date Analyzed: 11/ 4/87

Column: (pack/cap) CAP Dilution Factor: 1.0000

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	840.	B
67-64-1	Acetone	160.	
75-15-0	Carbon Disulfide	6.	
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	15.	
78-93-3	2-Butanone	31.	
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	1.3	J
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	2.	J
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	.8	J
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	23.	B
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	.2	J
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	.4	J

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ecology and environment

recycled paper

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN540

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/mL) G Lab File ID: V8623

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. Date Analyzed: 10/ 7/87

Column: (pack/cap) CAP Dilution Factor: 1.0000

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	2300.	B
67-64-1	Acetone	110.	B
75-15-0	Carbon Disulfide	3.	J
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	4.	J
78-93-3	2-Butanone	33.	B
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	.7	J
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	14.	
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	1.	BJ

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN540

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 1. (g/mL) G Lab File ID: V8851

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. Date Analyzed: 11/12/87

Column: (pack/cap) CAP Dilution Factor: .2020

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	51.	U
74-83-9	Bromomethane	51.	U
75-01-4	Vinyl Chloride	51.	U
75-00-3	Chloroethane	51.	U
75-09-2	Methylene Chloride	360.	B ?
67-64-1	Acetone	51.	U
75-15-0	Carbon Disulfide	26.	U
75-35-4	1,1-Dichloroethene	26.	U
75-34-3	1,1-Dichloroethane	26.	U
540-59-0	1,2-Dichloroethene (total)	26.	U
67-66-3	Chloroform	26.	U
107-06-2	1,2-Dichloroethane	56.	
78-93-3	2-Butanone	51.	U
71-55-6	1,1,1-Trichloroethane	26.	U
56-23-5	Carbon Tetrachloride	26.	U
108-05-4	Vinyl Acetate	51.	U
75-27-4	Bromodichloromethane	26.	U
78-87-5	1,2-Dichloropropane	26.	U
10061-01-5	cis-1,3-Dichloropropene	26.	U
79-01-6	Trichloroethene	26.	U
124-48-1	Dibromochloromethane	26.	U
79-00-5	1,1,2-Trichloroethane	12.	J
71-43-2	Benzene	26.	U
10061-02-6	trans-1,3-Dichloropropene	26.	U
75-25-2	Bromoform	26.	U
108-10-1	4-Methyl-2-Pentanone	51.	U
591-78-6	2-Hexanone	51.	U
127-18-4	Tetrachloroethene	5.	J
79-34-5	1,1,2,2-Tetrachloroethane	26.	U
108-88-3	Toluene	54.	B ?
108-90-7	Chlorobenzene	26.	U
100-41-4	Ethylbenzene	26.	U
100-42-5	Styrene	26.	U
1330-20-7	Xylene (total)	26.	U

ecology and environment

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

recycled paper

EPA SAMPLE NO.

EN540

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027051

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. dec. 4. Date Extracted: 10/ 5/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	bis(2-Chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	350.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	bis(2-Chloroisopropyl)ether	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	350.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	350.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	350.	U
91-57-6	2-Methylnaphthalene	27.	J
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	46.	BJ
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN540

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027051

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. dec. 4. Date Extracted: 10/ 5/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	350.	U
86-30-6	N-Nitrosodiphenylamine(1)	1700.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	38.	J
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	1300.	B
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	1700.	U
85-68-7	Butylbenzylphthalate	89.	J
91-94-1	3,3'-Dichlorobenzidine	350.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	270.	BJ
117-84-0	Di-n-octylphthalate	98.	J
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from diphenylamine

086

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN 540

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: C1082

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. dec. 0. Date Extracted: 10/ 5/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	9.	U
319-85-7	beta-BHC	9.	U
319-86-8	delta-BHC	9.	U
58-89-9	gamma-BHC(Lindane)	9.	U
76-44-8	Heptachlor	9.	U
309-00-2	Aldrin	9.	U
1024-57-3	Heptachlor epoxide	9.	U
959-98-8	Endosulfan I	9.	U
60-57-1	Dieldrin	17.	U
72-55-9	4,4'-DDE	17.	U
72-20-8	Endrin	17.	U
33213-65-9	Endosulfan II	17.	U
72-54-8	4,4'-DDD	17.	U
1031-07-8	Endosulfan Sulfate	17.	U
50-29-3	4,4'-DDT	17.	U
72-43-5	Methoxychlor	83.	U
53494-70-5	Endrin Ketone	17.	U
5103-71-9	Alpha Chlordane	83.	U
5103-74-2	Gamma Chlordane	83.	U
8001-35-2	Toxaphene	170.	U
12674-11-2	Aroclor-1016	83.	U
11104-28-2	Aroclor-1221	83.	U
11141-16-5	Aroclor-1232	83.	U
53469-21-9	Aroclor-1242	83.	U
12672-29-6	Aroclor-1248	83.	U
11097-69-1	Aroclor-1254	170.	U
11096-82-5	Aroclor-1260	170.	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EN540

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027051

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. dec. 4. Date Extracted: 10/ 5/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN ALDOL CONDENSATION	4.55	90000.	J
2.	- -	UNKNOWN	3.88	3000.	J
3.	- -	UNKNOWN ESTER	8.98	3000.	J
4.	2216-33-3	OCTANE, 3-METHYL	4.88	2000.	BJ
5.	- -	UNKNOWN HYDROCARBON	14.02	1000.	J
6.	- -	UNKNOWN PHTHALATE	22.77	1000.	J
7.	- -	UNKNOWN HYDROCARBON	20.55	1000.	J
8.	- -	UNKNOWN HYDROCARBON	18.98	800.	J
9.	- -	UNKNOWN HYDROCARBON	17.43	700.	J
10.	- -	UNKNOWN C7 KETONE	6.70	1000.	J
11.	- -	UNKNOWN C6 KETONE	3003.22	1000.	J
12.	- -	UNKNOWN HYDROCARBON	23.20	900.	J
13.	- -	UNKNOWN HYDROCARBON	16.82	500.	J
14.	2216-34-4	OCTANE,4-METHYL	4.72	1000.	BJ
15.	- -	UNKNOWN	7.75	1000.	J
16.	- -	UNKNOWN HYDROCARBON	19.72	700.	J
17.	- -	UNKNOWN HYDROCARBON	10.98	500.	J
18.	- -	UNKNOWN HYDROCARBON	22.00	700.	J
19.	1120-21-4	UNDECANE	22.00	500.	J
20.	- -	UNKNOWN AROMATIC	20.45	700.	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

J61

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN540

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 1. (g/mL) G Lab File ID: V8851

Level: (low/med) LOW Date Received: 10/ 2/87

Moisture: not dec. 4. Date Analyzed: 11/12/87

Column: (pack/cap) CAP Dilution Factor: .2020

Number TICs found: 7 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	124-38-9	CARBON DIOXIDE	.93	600.	BJ
2.	- -	UNKNOWN	3.08	200.	J
3.	- -	UNKNOWN	11.95	50.	J
4.	- -	UNKNOWN HYDROCARBON	20.42	30.	J
5.	- -	UNKNOWN	19.40	30.	J
6.	- -	UNKNOWN	5.47	40.	J
7.	- -	UNKNOWN HYDROCARBON	4.70	30.	J
8.					
9.					
10.					
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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN540

b Name: TRILAB Contract: 68-01-7407

b Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

trix: (soil/water) SOIL Lab Sample ID: _____

n le wt/vol: 5. (g/mL) G Lab File ID: V8623

vel: (low/med) LOW Date Received: 10/ 2/87

isture: not dec. 4. Date Analyzed: 10/ 7/87

lumn: (pack/cap) CAP Dilution Factor: 1.0000

umber TICs found: 13 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	124-38-9	CARBON DIOXIDE	.63	200.	BJ
2.	108-87-2	CYCLOHEXANE, METHYL	8.65	9.	J
3.	565-59-3	PENTANE, 2,3-DIMETHYL-	6.63	40.	J
4.	- -	UNKNOWN HYDROCARBON	9.33	7.	J
5.	- -	UNKNOWN HYDROCARBON	15.43	20.	J
6.	- -	CYCLOHEXANE, 1,1,2-TRIMETHYL	12.72	20.	J
7.	- -	UNKNOWN	15.02	10.	J
8.	- -	BENZENE, 1,3-DIMETHYL-5-(1-M	18.12	10.	J
9.	- -	UNKNOWN HYDROCARBON	5.12	9.	J
10.	- -	UNKNOWN	1.42	8.	J
11.	- -	UNKNOWN	11.37	9.	J
12.	- -	UNKNOWN	3.98	7.	J
13.	- -	UNKNOWN	13.15	8.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN541

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027061

Level: (low/med) LOW Date Received: 10/ 8/87

% Moisture: not dec. 5. dec. 5. Date Extracted: 10/13/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	13.	J
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	350.	U
86-30-6	N-Nitrosodiphenylamine(1)	1800.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	47.	J
120-12-7	Anthracene	47.	J
84-74-2	Di-n-butylphthalate	210.	BJ
206-44-0	Fluoranthene	44.	J
129-00-0	Pyrene	39.	J
85-68-7	Butylbenzylphthalate	100.	J
91-94-1	3,3'-Dichlorobenzidine	350.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	57.	J
117-81-7	bis(2-Ethylhexyl)phthalate	710.	B
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from diphenylamine

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN 541

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: C1084

Level: (low/med) LOW Date Received: 10/ 8/87

% Moisture: not dec. 5. dec. 0. Date Extracted: 10/13/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN541

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027061

Level: (low/med) LOW Date Received: 10/ 8/87

% Moisture: not dec. 5. dec. 5. Date Extracted: 10/13/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN ALDOL CONDENSATION	4.23	30000.	J
2.	- -	UNKNOWN PHENOL	23.75	1000.	J
3.	- -	UNKNOWN	23.53	1000.	J
4.	- -	UNKNOWN	3.55	800.	J
5.	- -	UNKNOWN	36.28	500.	J
6.	- -	UNKNOWN	36.48	500.	J
7.	- -	UNKNOWN PHENOL	24.07	900.	J
8.	- -	UNKNOWN	35.63	400.	J
9.	- -	UNKNOWN	32.90	400.	J
10.	- -	UNKNOWN	16.82	400.	J
11.	- -	UNKNOWN AROMATIC	25.72	500.	J
12.	- -	UNKNOWN	18.98	300.	J
13.	- -	UNKNOWN C7 KETONE	6.63	500.	J
14.	- -	UNKNOWN HYDROCARBON	20.55	500.	J
15.	- -	UNKNOWN PHENOL	24.48	500.	J
16.	2216-34-4	OCTANE, 4-METHYL	4.67	300.	J
17.	- -	UNKNOWN HYDROCARBON	14.02	200.	J
18.	- -	UNKNOWN PHENOL	24.28	400.	J
19.	- -	UNKNOWN HYDROCARBON	17.43	200.	J
20.	- -	UNKNOWN SULFUR COMPOUND	24.83	300.	J
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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN541

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/mL) G Lab File ID: V8787

Level: (low/med) LOW Date Received: 10/ 8/87

Moisture: not dec. 5. Date Analyzed: 11/ 4/87

Column: (pack/cap) CAP Dilution Factor: 1.0000

Number TICs found: 4

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	124-38-9	CARBON DIOXIDE	.68	200.	BJ
2.	- -	UNKNOWN HYDROCARBON	13.37	7.	J
3.	- -	UNKNOWN	7.25	6.	J
4.	- -	UNKNOWN HYDROCARBON	16.05	5.	J
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recycled paper
ecology and environment

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN541 RE

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 9107 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/mL) G Lab File ID: V8798

Level: (low/med) LOW Date Received: 10/ 8/87

% Moisture: not dec. 5. Date Analyzed: 11/ 5/87

Column: (pack/cap) CAP Dilution Factor: 1.0000

Number TICs found: 7 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	124-38-9	CARBON DIOXIDE	.63	100.	BJ
2.	- -	UNKNOWN	2.88	60.	J
3.	- -	UNKNOWN	6.52	10.	J
4.	- -	UNKNOWN	5.20	10.	J
5.	- -	UNKNOWN	16.00	60.	J
6.	- -	UNKNOWN	18.60	10.	J
7.	- -	UNKNOWN	13.52	7.	J
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10.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN542

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/mL) G Lab File ID: V8680

Level: (low/med) LOW Date Received: 10/ 9/87

% Moisture: not dec. 2. Date Analyzed: 10/19/87

Column: (pack/cap) CAP Dilution Factor: 1.0000

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	500.	
67-64-1	Acetone	97.	B
75-15-0	Carbon Disulfide	5.	J
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	22	
78-93-3	2-Butanone	25.	B
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	2	J
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	3.	J
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	2.	BJ
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	30.	B
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

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ecology and environment

recycled paper

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN542 RE

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8197 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/ml) G Lab File ID: V3799

Level: (low/med) LOW Date Received: 10/ 9/87

% Moisture: not dec. 2. Date Analyzed: 11/ 5/87

Column: (packed/cap) CAP Dilution Factor: 1.0000

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	300.	B
67-64-1	Acetone	180.	B
75-15-0	Carbon Disulfide	10.	
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	1.	J
107-06-2	1,2-Dichloroethane	3.	
78-93-3	2-Butanone	30.	B
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	.002	J
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	.9	J
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	13	
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	J
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	61.	B
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	.3	BJ
100-42-5	Styrene	1.	J
1330-20-7	Xylene (total)	.8	BJ

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN542

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027071

Level: (low/med) LOW Date Received: 10/ 9/87

% Moisture: not dec. 2. dec. 3. Date Extracted: 10/13/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	340.	U
111-44-4	bis(2-Chloroethyl)ether	340.	U
95-57-8	2-Chlorophenol	340.	U
541-73-1	1,3-Dichlorobenzene	340.	U
106-46-7	1,4-Dichlorobenzene	340.	U
100-51-6	Benzyl alcohol	340.	U
95-50-1	1,2-Dichlorobenzene	340.	U
95-48-7	2-Methylphenol	340.	U
108-60-1	bis(2-Chloroisopropyl)ether	340.	U
106-44-5	4-Methylphenol	340.	U
621-64-7	N-Nitroso-di-n-propylamine	340.	U
67-72-1	Hexachloroethane	340.	U
98-95-3	Nitrobenzene	340.	U
78-59-1	Isophorone	340.	U
88-75-5	2-Nitrophenol	340.	U
105-67-9	2,4-Dimethylphenol	340.	U
65-85-0	Benzoic acid	340.	U
111-91-1	bis(2-Chloroethoxy)methane	340.	U
120-83-2	2,4-Dichlorophenol	340.	U
120-82-1	1,2,4-Trichlorobenzene	340.	U
91-20-3	Naphthalene	340.	U
106-47-8	4-Chloroaniline	340.	U
87-68-3	Hexachlorobutadiene	340.	U
59-50-7	4-Chloro-3-methylphenol	340.	U
91-57-6	2-Methylnaphthalene	340.	U
77-47-4	Hexachlorocyclopentadiene	340.	U
88-06-2	2,4,6-Trichlorophenol	340.	U
95-95-4	2,4,5-Trichlorophenol	340.	U
91-58-7	2-Chloronaphthalene	340.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	340.	U
208-96-8	Acenaphthylene	340.	U
606-20-2	2,6-Dinitrotoluene	340.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN542

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027071

Level: (low/med) LOW Date Received: 10/ 9/87

% Moisture: not dec. 2. dec. 3. Date Extracted: 10/13/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	340.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	340.	U
121-14-2	2,4-Dinitrotoluene	340.	U
84-66-2	Diethylphthalate	340.	U
7005-72-3	4-Chlorophenyl-phenylether	340.	U
86-73-7	Fluorene	340.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	340.	U
86-30-6	N-Nitrosodiphenylamine(1)	1700.	U
101-55-3	4-Bromophenyl-phenylether	340.	U
118-74-1	Hexachlorobenzene	340.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	18.	J
120-12-7	Anthracene	18.	J
84-74-2	Di-n-butylphthalate	110.	BJ
206-44-0	Fluoranthene	340.	U
129-00-0	Pyrene	1700.	U
85-68-7	Butylbenzylphthalate	95.	J
91-94-1	3,3'-Dichlorobenzidine	340.	U
56-55-3	Benzo(a)anthracene	340.	U
218-01-9	Chrysene	340.	U
117-81-7	bis(2-Ethylhexyl)phthalate	260.	BJ
117-84-0	Di-n-octylphthalate	340.	U
205-99-2	Benzo(b)fluoranthene	340.	U
207-08-9	Benzo(k)fluoranthene	340.	U
50-32-8	Benzo(a)pyrene	340.	U
193-39-5	Indeno(1,2,3-cd)pyrene	340.	U
53-70-3	Dibenz(a,h)anthracene	340.	U
191-24-2	Benzo(g,h,i)perylene	340.	U

(1) - Cannot be separated from diphenylamine

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1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN 542

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: C1085

Level: (low/med) LOW Date Received: 10/ 9/87

% Moisture: not dec. 2. dec. 0. Date Extracted: 10/13/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	9.	U
319-85-7	beta-BHC	9.	U
319-86-8	delta-BHC	9.	U
58-89-9	gamma-BHC(Lindane)	9.	U
76-44-8	Heptachlor	9.	U
309-00-2	Aldrin	9.	U
1024-57-3	Heptachlor epoxide	9.	U
959-98-8	Endosulfan I	9.	U
60-57-1	Dieldrin	17.	U
72-55-9	4,4'-DDE	17.	U
72-20-8	Endrin	17.	U
33213-65-9	Endosulfan II	17.	U
72-54-8	4,4'-DDD	17.	U
1031-07-8	Endosulfan Sulfate	17.	U
50-29-3	4,4'-DDT	17.	U
72-43-5	Methoxychlor	82.	U
53494-70-5	Endrin Ketone	17.	U
5103-71-9	Alpha Chlordane	82.	U
5103-74-2	Gamma Chlordane	82.	U
8001-35-2	Toxaphene	160.	U
12674-11-2	Aroclor-1016	82.	U
11104-28-2	Aroclor-1221	82.	U
11141-16-5	Aroclor-1232	82.	U
53469-21-9	Aroclor-1242	82.	U
12672-29-6	Aroclor-1248	82.	U
11097-69-1	Aroclor-1254	160.	U
11096-82-5	Aroclor-1260	160.	U

ecology and environment

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN542 RE

Lab Name: [illegible] Contract: 68-01-7407

Lab Code: [illegible] Case No.: [illegible] SAS No.: SDG No.: EN538

Matrix: [illegible] (Water) SOIL Lab Sample ID: _____

Sample wt/vol: [illegible] (g/ml) G Lab File ID: V9799

Level: [illegible] (Low/Med) LOW Date Received: 10/ 9/87

% Moisture: [illegible] dec. 0. Date Analyzed: 11/ 5/87

Column: [illegible] (mm/ID) CAP Dilution Factor: 1.0000

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

Number TICs found: 7

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	124-38-9	CARBON DIOXIDE	.72	200.	BJ
2.	75-69-4	METHANE, TRICHLOROFLUORO-	1.90	40.	J
3.	- -	UNKNOWN HYDROCARBON	16.25	20.	J
4.	3073-66-3	CYCLOHEXANE, 1,1,3-TRIMETHYL	5.20	20.	J
5.	110-54-3	HEXANE	4.82	7.	J
6.	- -	UNKNOWN	13.98	7.	J
7.	- -	UNKNOWN	4.13	5.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN542

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027071

Level: (low/med) LOW Date Received: 10/ 9/87

% Moisture: not dec. 2. dec. 3. Date Extracted: 10/13/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

Number TICs found: 15 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN ALDOL CONDENSATION	4.15	30000.	J
2.	- -	DODECANE, 2,7,10-TRIMETHYL-	20.57	300.	J
3.	17851-53-5	1,2-BENZENEDICARBOXYLIC ACID	22.77	300.	J
4.	2216-33-3	OCTANE, 3-METHYL	4.82	500.	J
5.	- -	UNKNOWN HYDROCARBON	18.97	200.	J
6.	- -	UNKNOWN HYDROCARBON	17.42	200.	J
7.	- -	UNKNOWN	23.22	200.	J
8.	- -	UNKNOWN HYDROCARBON	22.02	100.	J
9.	- -	UNKNOWN PHENOL	32.88	200.	J
10.	- -	UNKNOWN HYDROCARBON	10.12	200.	J
11.	- -	UNKNOWN HYDROCARBON	14.02	200.	J
12.	- -	UNKNOWN	25.72	200.	J
13.	- -	UNKNOWN	28.03	100.	J
14.	- -	UNKNOWN HYDROCARBON	5.13	200.	J
15.	- -	UNKNOWN	6.33	200.	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN542

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/mL) G Lab File ID: V8680

Level: (low/med) LOW Date Received: 10/ 9/87

Moisture: not dec. 2. Date Analyzed: 10/19/87

Column: (pack/cap) CAP Dilution Factor: 1.0000

Number TICs found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	124-38-9	CARBON DIOXIDE	.58	200.	BJ
2.	75-69-4	METHANE, TRICHLOROFLUORO-	1.47	20.	J
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ORGANICS
LABORATORY RESPONSE TO RESULTS OF CCS (continued)

SAMPLE	FRACTION	CRITERION	COMMENTS
EN538-01	VOA	H	TRAFFIC REPORTS SUBMITTED.
EN538-01	VOA	H1	CASE NUMBER IS NOT REQUIRED ON RIC. SEE "STATEMENT OF WORK," PAGES B-7 & B-8.
EN538-01	VOA	C	WE DO NOT UNDERSTAND THIS COMMENT. THE VBLK WITH TOLUENE-d8 OUT OF QC LIMITS IS STARRED WITH AN ASTERISK ON FORM II VOA-2, (p. 1).
EN539-01	VOA	H	SAME AS FOR EN538-01
EN539-01	VOA	H1	SAME AS FOR EN538-01
EN539-01	VOA	C	SAME AS FOR EN538-01
EN540-01	VOA	H	SAME AS FOR EN538-01
EN540-01	VOA	H1	SAME AS FOR EN538-01
EN540-01	VOA	C	SAME AS FOR EN538-01
EN540-01	VOA	F	YES. ONE SURROGATE OUT IS ACCEPTABLE FOR VOA. ALSO OUT ON REANALYSIS.
EN540-01	VOA	E	YES. ALSO OUT ON REANALYSIS.
EN541-01	VOA	H	SAME AS FOR EN538-01
EN541-01	VOA	H1	SAME AS FOR EN538-01
EN541-01	VOA	C	SAME AS FOR EN538-01
EN541-01	VOA	F	SAME AS FOR EN540-01
EN541-01	VOA	E	SAME AS FOR EN540-01
EN541-01	VOA	A	YES
EN542-01	VOA	H	SAME AS FOR EN538-01
EN542-01	VOA	H1	SAME AS FOR EN538-01
EN542-01	VOA	C	SAME AS FOR EN538-01
EN542-01	VOA	F	SAME AS FOR EN540-01
EN542-01	VOA	E	SAME AS FOR EN540-01
EN542-01	VOA	A	SAME AS FOE EN540-01
EN540-04	VOA	H1	SAME AS FOR EN538-01
EN540-04	VOA	C	SAME AS FOE EN538-01

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EN540-04	VOA	F	TOLUENE -d8 IS OUT ON REANALYSIS AS IT WAS IN THE ORIGINAL ANALYSIS. THE TWO OTHER EN540 ANALYSES (11-12-87) ARE FOR A DILUTION. RESUBMITTED FORM II VOA-2 (p. 1), FORMS I VOA (pp. 175 & 191) AND I VOA-TIC (pp,176 & 192) TO INDICATE THE DILUTION
EN540-04	VOA	E	THESE INTERNAL STANDARDS ARE OUT OF COMPLIANCE, AS THEY WERE IN THE ORIGINAL ANALYSIS.
EN540-04	VOA	A	YES
EN541-04	VOA	H1	SAME AS FOR EN538-01
EN541-04	VOA	C	SAME AS FOR EN538-01
EN541-04	VOA	F	THESE SURROGATES ARE OUT, AS THEY WERE IN THE ORIGINAL ANALYSIS.
EN541-04	VOA	E	SAME AS FOR EN540-04
EN541-04	VOA	A	YES
EN542-04	VOA	H1	SAME AS FOR EN538-01
EN542-04	VOA	C	SAME AS FOR EN538-01
EN542-04	VOA	A	YES
EN542-04Q	VOA	F	YES. ALSO OUT ON THE FIRST ANALYSIS
EN542-04	VOA	E	YES. ALSO OUT ON THE FIRST ANALYSIS
EN538-04	VOA	H1	SAME AS FOR EN538-01
EN538-04	VOA	C	SAME AS FOR EN538-01
EN538-04	VOA	A	YES
EN538-04	VOA	F	COMMENT NOT UNDERSTOOD
EN538-08	VOA	H1	SAME AS FOR EN538-01
EN538-08	VOA	C	SAME AS FOR EN538-01
EN538-09	VOA	H	SAME AS FOR EN538-01
EN538-09	VOA	C	SAME AS FOR EN538-01
EN539-04	VOA	H1	SAME AS FOR EN538-01
EN539-04	VOA	C	SAME AS FOR EN538-01
EN539-04	VOA	A	YES
EN539-04	VOA	F	COMMENT NOT UNDERSTOOD
EN538			FORM I VOA RESUBMITTED TO SHOW PROPER RECEIPT DATE (p. 18,19,42,43,481 & 486)

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EN538-01	BNA	H	TRAFFIC REPORTS SUBMITTED
EN538-01	BNA	H1	CASE NUMBER IS NOT REQUIRED ON RIC. SEE "STATEMENT OF WORK," PAGES B-7 & B-8.
EN539-01	BNA	H	SAME AS FOR EN538-01
EN539-01	BNA	H1	SAME AS FOR EN538-01
EN540-01	BNA	H	SAME AS FOR EN538-01
EN540-01	BNA	H1	SAME AS FOR EN538-01
EN541-01	BNA	H	SAME AS FOR EN538-01
EN541-01	BNA	H1	SAME AS FOR EN538-01
EN542-01	BNA	H	SAME AS FOR EN538-01
EN542-01	BNA	H1	SAME AS FOR EN538-01
EN538-08	BNA	H1	SAME AS FOR EN538-01
EN538-08	BNA	H2	SAMPLE EN538 WAS INDEED RECEIVED 10-1-87. FORMS I SV-1 , I SV-2 AND I SV-TIC FOR EN538-01 HAVE BEEN CORRECTED AND ARE RESUBMITTED (pp. 7,8,9).
EN538-09	BNA	H3	ONE OF THE THREE COMPOUNDS REPORTED AS <u>OUTSIDE</u> THE QC LIMIT IS ACTUALLY <u>AT</u> THE QC UPPER LIMIT. RESUBMITTED FORM III SV-2 (p. 2).
EN538-09	BNA	H2	SAME AS FOR EN538-08
EN538-09	BNA	H1	SAME AS FOR EN538-08

NRK

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN540-DL

DWP 12-15-87

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 1. (g/mL) G Lab File ID: V8851

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. Date Analyzed: 11/12/87

Column: (pack/cap) CAP Dilution Factor: .2020

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	51.	U
74-83-9	Bromomethane	51.	U
75-01-4	Vinyl Chloride	51.	U
75-00-3	Chloroethane	51.	U
75-09-2	Methylene Chloride	360.	B
67-64-1	Acetone	51.	U
75-15-0	Carbon Disulfide	26.	U
75-35-4	1,1-Dichloroethene	26.	U
75-34-3	1,1-Dichloroethane	26.	U
540-59-0	1,2-Dichloroethene (total)	26.	U
67-66-3	Chloroform	26.	U
107-06-2	1,2-Dichloroethane	56.	
78-93-3	2-Butanone	51.	U
71-55-6	1,1,1-Trichloroethane	26.	U
56-23-5	Carbon Tetrachloride	26.	U
108-05-4	Vinyl Acetate	51.	U
75-27-4	Bromodichloromethane	26.	U
78-87-5	1,2-Dichloropropane	26.	U
10061-01-5	cis-1,3-Dichloropropene	26.	U
79-01-6	Trichloroethene	26.	U
124-48-1	Dibromochloromethane	26.	U
79-00-5	1,1,2-Trichloroethane	12.	J
71-43-2	Benzene	26.	U
10061-02-6	trans-1,3-Dichloropropene	26.	U
75-25-2	Bromoform	26.	U
108-10-1	4-Methyl-2-Pentanone	51.	U
591-78-6	2-Hexanone	51.	U
127-18-4	Tetrachloroethene	5.	J
79-34-5	1,1,2,2-Tetrachloroethane	26.	U
108-88-3	Toluene	54.	B
108-90-7	Chlorobenzene	26.	U
100-41-4	Ethylbenzene	26.	U
100-42-5	Styrene	26.	U
1330-20-7	Xylene (total)	26.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN540 DL

EMP 12-15-87

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 1. (g/mL) G Lab File ID: V8851

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. Date Analyzed: 11/12/87

Column: (pack/cap) CAP Dilution Factor: .2020

Number TICs found: 7

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	124-38-9	CARBON DIOXIDE	.93	600.	BJ
2.	- -	UNKNOWN	3.08	200.	J
3.	- -	UNKNOWN	11.95	50.	J
4.	- -	UNKNOWN HYDROCARBON	20.42	30.	J
5.	- -	UNKNOWN	19.40	30.	J
6.	- -	UNKNOWN	5.47	40.	J
7.	- -	UNKNOWN HYDROCARBON	4.70	30.	J
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9.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN540 RE(DL) 5mp 12-15-87

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 1. (g/mL) G Lab File ID: V8852

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. Date Analyzed: 11/12/87

Column: (pack/cap) CAP Dilution Factor: .2000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	52.	U
74-83-9	Bromomethane	52.	U
75-01-4	Vinyl Chloride	52.	U
75-00-3	Chloroethane	52.	U
75-09-2	Methylene Chloride	2100.	B
67-64-1	Acetone	550.	B
75-15-0	Carbon Disulfide	2.	J
75-35-4	1,1-Dichloroethene	26.	U
75-34-3	1,1-Dichloroethane	26.	U
540-59-0	1,2-Dichloroethene (total)	26.	U
67-66-3	Chloroform	2.	J
107-06-2	1,2-Dichloroethane	51.	
78-93-3	2-Butanone	130.	B
71-55-6	1,1,1-Trichloroethane	26.	U
56-23-5	Carbon Tetrachloride	26.	U
108-05-4	Vinyl Acetate	.09	BJ
75-27-4	Bromodichloromethane	26.	U
78-87-5	1,2-Dichloropropane	26.	U
10061-01-5	cis-1,3-Dichloropropene	26.	U
79-01-6	Trichloroethene	26.	U
124-48-1	Dibromochloromethane	26.	U
79-00-5	1,1,2-Trichloroethane	7.	J
71-43-2	Benzene	26.	U
10061-02-6	trans-1,3-Dichloropropene	26.	U
75-25-2	Bromoform	26.	U
108-10-1	4-Methyl-2-Pentanone	52.	U
591-78-6	2-Hexanone	52.	U
127-18-4	Tetrachloroethene	3.	J
79-34-5	1,1,2,2-Tetrachloroethane	26.	U
108-88-3	Toluene	41.	B
108-90-7	Chlorobenzene	26.	U
100-41-4	Ethylbenzene	26.	U
100-42-5	Styrene	26.	U
1330-20-7	Xylene (total)	26.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN540 RE(DL) 12-15-87

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 1. (g/mL) G Lab File ID: V8852

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. Date Analyzed: 11/12/87

Column: (pack/cap) CAP Dilution Factor: .2000

Number TICs found: 3 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	124-38-9	CARBON DIOXIDE	.68	200.	BJ
2.	- -	UNKNOWN HYDROCARBON	4.68	50.	J
3.	- -	UNKNOWN ALCOHOL	4.08	30.	J
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FORM I VOA-TIC 1/87 Rev.

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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8028

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

% Moisture: not dec. 0. dec. 0. - Date Extracted: 10/13/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/18/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

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
100-51-6	Benzyl alcohol	330.	U
95-50-1	1,2-Dichlorobenzene	330.	U
95-48-7	2-Methylphenol	330.	U
108-60-1	bis(2-Chloroisopropyl)ether	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
65-85-0	Benzoic acid	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	330.	U
91-58-7	2-Chloronaphthalene	330.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	12.	J
208-96-8	Acenaphthylene	330.	U
606-20-2	2,6-Dinitrotoluene	330.	U

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8028

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

% Moisture: not dec. 0. dec. 0. Date Extracted: 10/13/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/18/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	330.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	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	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	330.	U
86-30-6	N-Nitrosodiphenylamine(1)	1700.	U
101-55-3	4-Bromophenyl-phenylether	330.	U
118-74-1	Hexachlorobenzene	330.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	330.	U
120-12-7	Anthracene	330.	U
84-74-2	Di-n-butylphthalate	150.	J
206-44-0	Fluoranthene	330.	U
129-00-0	Pyrene	1700.	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	300.	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

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8028

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

% Moisture: not dec. 0. dec. 0. Date Extracted: 10/13/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/18/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

Number TICs found: 4

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN ALDOL CONDENSATION	4.12	3000.	J
2.	- -	1,2-BENZENEDICARBOXYLIC ACID	22.77	300.	J
3.	- -	UNKNOWN	6.67	200.	J
4.	- -	UNKNOWN	34.62	600.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027011

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

% Moisture: not dec. 0. dec. 0. Date Extracted: 10/ 5/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

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
100-51-6	Benzyl alcohol	330.	U
95-50-1	1,2-Dichlorobenzene	330.	U
95-48-7	2-Methylphenol	330.	U
108-60-1	bis(2-Chloroisopropyl)ether	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
65-85-0	Benzoic acid	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	330.	U
91-58-7	2-Chloronaphthalene	330.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	33.	J
208-96-8	Acenaphthylene	330.	U
606-20-2	2,6-Dinitrotoluene	330.	U

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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK

b Name: TRILAB Contract: 68-01-7407

ab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

trix: (soil/water) SOIL Lab Sample ID: _____

ample wt/vol: 30. (g/mL) G Lab File ID: Q8027011

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

Moisture: not dec. 0. dec. 0. Date Extracted: 10/ 5/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

C Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	330.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	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	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	330.	U
86-30-6	N-Nitrosodiphenylamine(1)	1700.	U
101-55-3	4-Bromophenyl-phenylether	330.	U
118-74-1	Hexachlorobenzene	330.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	330.	U
120-12-7	Anthracene	330.	U
84-74-2	Di-n-butylphthalate	250.	J
206-44-0	Fluoranthene	330.	U
129-00-0	Pyrene	1700.	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	110.	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

ecology and environment

recycled paper

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027011

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

% Moisture: not dec. 0. dec. 0. Date Extracted: 10/ 5/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

Number TICs found: 7

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN ALDOL CONDENSATION	4.43	90000.	J
2.	- -	UNKNOWN	3.72	4000.	J
3.	2216-33-3	OCTANE, 3-METHYL	4.87	3000.	J
4.	2216-34-4	OCTANE, 4-METHYL	4.68	2000.	J
5.	- -	UNKNOWN KETONE	3.18	1000.	J
6.	- -	UNKNOWN PHTHALATE	22.77	400.	J
7.	- -	UNKNOWN	11.85	200.	J
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ecology and environment

recycled paper

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8028

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

Moisture: not dec. 0. dec. 0. Date Extracted: 10/13/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/18/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

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
100-51-6	Benzyl alcohol	330.	U
95-50-1	1,2-Dichlorobenzene	330.	U
95-48-7	2-Methylphenol	330.	U
108-60-1	bis(2-Chloroisopropyl)ether	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
65-85-0	Benzoic acid	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	330.	U
91-58-7	2-Chloronaphthalene	330.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	12.	J
208-96-8	Acenaphthylene	330.	U
606-20-2	2,6-Dinitrotoluene	330.	U

ecology and environment
recycled paper

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8028

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

% Moisture: not dec. 0. dec. 0. Date Extracted: 10/13/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/18/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	330.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	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	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	330.	U
86-30-6	N-Nitrosodiphenylamine(1)	1700.	U
101-55-3	4-Bromophenyl-phenylether	330.	U
118-74-1	Hexachlorobenzene	330.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	330.	U
120-12-7	Anthracene	330.	U
84-74-2	Di-n-butylphthalate	150.	J
206-44-0	Fluoranthene	330.	U
129-00-0	Pyrene	1700.	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	300.	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

ecology and environment
recycled paper

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8028

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

% Moisture: not dec. 0. dec. 0. Date Extracted: 10/13/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/18/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

Number TICs found: 4

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN ALDOL CONDENSATION	4.12	3000.	J
2.	- -	1,2-BENZENEDICARBOXYLIC ACID	22.77	300.	J
3.	- -	UNKNOWN	6.67	200.	J
4.	- -	UNKNOWN	34.62	600.	J
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ecology and environment

recycled paper

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK

ab Name: TRILAB Contract: 68-01-7407

b Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

latrix: (soil/water) SOIL Lab Sample ID: _____

mple wt/vol: 30. (g/mL) G Lab File ID: Q8027011

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

% Moisture: not dec. 0. dec. 0. Date Extracted: 10/ 5/87

xtraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

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
100-51-6	Benzyl alcohol	330:	U
95-50-1	1,2-Dichlorobenzene	330.	U
95-48-7	2-Methylphenol	330.	U
108-60-1	bis(2-Chloroisopropyl)ether	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
65-85-0	Benzoic acid	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	330.	U
91-58-7	2-Chloronaphthalene	330.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	33.	J
208-96-8	Acenaphthylene	330.	U
606-20-2	2,6-Dinitrotoluene	330.	U

recycled paper
ecology and environment

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027011

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

% Moisture: not dec. 0. dec. 0. Date Extracted: 10/ 5/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	330.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	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	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	330.	U
86-30-6	N-Nitrosodiphenylamine(1)	1700.	U
101-55-3	4-Bromophenyl-phenylether	330.	U
118-74-1	Hexachlorobenzene	330.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	330.	U
120-12-7	Anthracene	330.	U
84-74-2	Di-n-butylphthalate	250.	J
206-44-0	Fluoranthene	330.	U
129-00-0	Pyrene	1700.	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	110.	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

ecology and environment

recycled paper

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027011

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

% Moisture: not dec. 0. dec. 0. Date Extracted: 10/ 5/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

Number TICs found: 7

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN ALDOL CONDENSATION	4.43	90000.	J
2.	- -	UNKNOWN	3.72	4000.	J
3.	2216-33-3	OCTANE, 3-METHYL	4.87	3000.	J
4.	2216-34-4	OCTANE, 4-METHYL	4.68	2000.	J
5.	- -	UNKNOWN KETONE	3.18	1000.	J
6.	- -	UNKNOWN PHTHALATE	22.77	400.	J
7.	- -	UNKNOWN	11.85	200.	J
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ecology and environment

recycled paper

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

Lab File ID: Q8027011 Lab Sample ID:_____

Date Extracted: 10/ 5/87 Extraction:(SepF/Cont/Sonc)

Date Analyzed: 10/17/87 Time Analyzed: 17:44

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

Instrument ID: A A

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	EN538		Q8027031	10/17/87
2	EN539		Q8027041	10/17/87
3	EN540		Q8027051	10/17/87
4	EN538MS		Q8027081	10/17/87
5	EN538MSD		Q8027091	10/18/87
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COMMENTS:

003

ecology and environment

recycled paper

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

Lab File ID: Q8028 Lab Sample ID: _____

Date Extracted: 10/13/87 Extraction:(SepF/Cont/Sonc)

Date Analyzed: 10/18/87 Time Analyzed: 3:31

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

Instrument ID: A A

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	EN541		Q8027061	10/17/87
2	EN542		Q8027071	10/17/87
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COMMENTS:

004

ecology and environment

8167-5-0019

recycled paper

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN540-DL

DMP 12-15-87

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 1. (g/mL) G Lab File ID: V8851

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. Date Analyzed: 11/12/87

Column: (pack/cap) CAP Dilution Factor: .2020

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	51.	U
74-83-9	Bromomethane	51.	U
75-01-4	Vinyl Chloride	51.	U
75-00-3	Chloroethane	51.	U
75-09-2	Methylene Chloride	360.	B
67-64-1	Acetone	51.	U
75-15-0	Carbon Disulfide	26.	U
75-35-4	1,1-Dichloroethene	26.	U
75-34-3	1,1-Dichloroethane	26.	U
540-59-0	1,2-Dichloroethene (total)	26.	U
67-66-3	Chloroform	26.	U
107-06-2	1,2-Dichloroethane	56.	
78-93-3	2-Butanone	51.	U
71-55-6	1,1,1-Trichloroethane	26.	U
56-23-5	Carbon Tetrachloride	26.	U
108-05-4	Vinyl Acetate	51.	U
75-27-4	Bromodichloromethane	26.	U
78-87-5	1,2-Dichloropropane	26.	U
10061-01-5	cis-1,3-Dichloropropene	26.	U
79-01-6	Trichloroethene	26.	U
124-48-1	Dibromochloromethane	26.	U
79-00-5	1,1,2-Trichloroethane	12.	J
71-43-2	Benzene	26.	U
10061-02-6	trans-1,3-Dichloropropene	26.	U
75-25-2	Bromoform	26.	U
108-10-1	4-Methyl-2-Pentanone	51.	U
591-78-6	2-Hexanone	51.	U
127-18-4	Tetrachloroethene	5.	J
79-34-5	1,1,2,2-Tetrachloroethane	26.	U
108-88-3	Toluene	54.	B
108-90-7	Chlorobenzene	26.	U
100-41-4	Ethylbenzene	26.	U
100-42-5	Styrene	26.	U
1330-20-7	Xylene (total)	26.	U

ecology and environment

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

recycled paper

EPA SAMPLE NO.

EN540 DL

DMP 12-15-87

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 1. (g/mL) G Lab File ID: V8851

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. Date Analyzed: 11/12/87

Column: (pack/cap) CAP Dilution Factor: .2020

Number TICs found: 7

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	124-38-9	CARBON DIOXIDE	.93	600.	BJ
2.	- -	UNKNOWN	3.08	200.	J
3.	- -	UNKNOWN	11.95	50.	J
4.	- -	UNKNOWN HYDROCARBON	20.42	30.	J
5.	- -	UNKNOWN	19.40	30.	J
6.	- -	UNKNOWN	5.47	40.	J
7.	- -	UNKNOWN HYDROCARBON	4.70	30.	J
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8167-5-0020

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN540 RE(DL) DMP 12-15-87

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 1. (g/mL) G Lab File ID: V8852

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. Date Analyzed: 11/12/87

Column: (pack/cap) CAP Dilution Factor: .2000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	52.	U
74-83-9	Bromomethane	52.	U
75-01-4	Vinyl Chloride	52.	U
75-00-3	Chloroethane	52.	U
75-09-2	Methylene Chloride	2100.	B
67-64-1	Acetone	550.	B
75-15-0	Carbon Disulfide	2.	J
75-35-4	1,1-Dichloroethene	26.	U
75-34-3	1,1-Dichloroethane	26.	U
540-59-0	1,2-Dichloroethene (total)	26.	U
67-66-3	Chloroform	2.	J
107-06-2	1,2-Dichloroethane	51.	
78-93-3	2-Butanone	130.	B
71-55-6	1,1,1-Trichloroethane	26.	U
56-23-5	Carbon Tetrachloride	26.	U
108-05-4	Vinyl Acetate	.09	BJ
75-27-4	Bromodichloromethane	26.	U
78-87-5	1,2-Dichloropropane	26.	U
10061-01-5	cis-1,3-Dichloropropene	26.	U
79-01-6	Trichloroethene	26.	U
124-48-1	Dibromochloromethane	26.	U
79-00-5	1,1,2-Trichloroethane	7.	J
71-43-2	Benzene	26.	U
10061-02-6	trans-1,3-Dichloropropene	26.	U
75-25-2	Bromoform	26.	U
108-10-1	4-Methyl-2-Pentanone	52.	U
591-78-6	2-Hexanone	52.	U
127-18-4	Tetrachloroethene	3.	J
79-34-5	1,1,2,2-Tetrachloroethane	26.	U
108-88-3	Toluene	41.	B
108-90-7	Chlorobenzene	26.	U
100-41-4	Ethylbenzene	26.	U
100-42-5	Styrene	26.	U
1330-20-7	Xylene (total)	26.	U

ecology and environment

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN540 RE(DL) DMP 12-15-87

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 1. (g/mL) G Lab File ID: V8852

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. Date Analyzed: 11/12/87

Column: (pack/cap) CAP Dilution Factor: .2000

Number TICs found: 3 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	124-38-9	CARBON DIOXIDE	.68	200.	BJ
2.	- -	UNKNOWN HYDROCARBON	4.68	50.	J
3.	- -	UNKNOWN ALCOHOL	4.08	30.	J
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ecology and environment

recycled paper

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN540

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/mL) G Lab File ID: V8623

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. Date Analyzed: 10/ 7/87

Column: (pack/cap) CAP Dilution Factor: 1.0000

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	2300.	B
67-64-1	Acetone	110.	B
75-15-0	Carbon Disulfide	3.	J
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	4.	J
78-93-3	2-Butanone	33.	B
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	.7	J
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	14.	
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	1.	BJ

ecology and environment

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN540

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/mL) G Lab File ID: V8623

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. Date Analyzed: 10/ 7/87

Column: (pack/cap) CAP Dilution Factor: 1.0000

Number TICs found: 13

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	124-38-9	CARBON DIOXIDE	.63	200.	BJ
2.	108-87-2	CYCLOHEXANE, METHYL	8.65	9.	J
3.	565-59-3	PENTANE, 2,3-DIMETHYL-	6.63	40.	J
4.	- -	UNKNOWN HYDROCARBON	9.33	7.	J
5.	- -	UNKNOWN HYDROCARBON	15.43	20.	J
6.	- -	CYCLOHEXANE, 1,1,2-TRIMETHYL	12.72	20.	J
7.	- -	UNKNOWN	15.02	10.	J
8.	- -	BENZENE, 1,3-DIMETHYL-5-(1-M	18.12	10.	J
9.	- -	UNKNOWN HYDROCARBON	5.12	9.	J
10.	- -	UNKNOWN	1.42	8.	J
11.	- -	UNKNOWN	11.37	9.	J
12.	- -	UNKNOWN	3.98	7.	J
13.	- -	UNKNOWN	13.15	8.	J
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ecology and environment

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN540 RE

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/mL) G Lab File ID: V8786

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. Date Analyzed: 11/ 4/87

Column: (pack/cap) CAP Dilution Factor: 1.0000

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	840.	B — ?
67-64-1	Acetone	160.	
75-15-0	Carbon Disulfide	6.	
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	15.	
78-93-3	2-Butanone	31.	HRS
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	.3	J
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	2.	J
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	.8	J
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	23.	B — ?
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	.2	J
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	.4	J

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN540 RE

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 5. (g/mL) G Lab File ID: V8786

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. Date Analyzed: 11/ 4/87

Column: (pack/cap) CAP Dilution Factor: 1.0000

Number TICs found: 4

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	124-38-9	CARBON DIOXIDE	.38	20.	BJ
2.	- -	UNKNOWN HYDROCARBON	13.37	20.	J
3.	- -	UNKNOWN HYDROCARBON	4.58	9.	J
4.	- -	UNKNOWN	1.80	7.	J
5.					
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ecology and environment

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN540

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 1. (g/mL) G Lab File ID: V8851

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. Date Analyzed: 11/12/87

Column: (pack/cap) CAP Dilution Factor: .2020

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	51.	U
74-83-9	Bromomethane	51.	U
75-01-4	Vinyl Chloride	51.	U
75-00-3	Chloroethane	51.	U
75-09-2	Methylene Chloride	360.	B ?
67-64-1	Acetone	51.	U
75-15-0	Carbon Disulfide	26.	U
75-35-4	1,1-Dichloroethene	26.	U
75-34-3	1,1-Dichloroethane	26.	U
540-59-0	1,2-Dichloroethene (total)	26.	U
67-66-3	Chloroform	26.	U
107-06-2	1,2-Dichloroethane	56.	
78-93-3	2-Butanone	51.	U
71-55-6	1,1,1-Trichloroethane	26.	U
56-23-5	Carbon Tetrachloride	26.	U
108-05-4	Vinyl Acetate	51.	U
75-27-4	Bromodichloromethane	26.	U
78-87-5	1,2-Dichloropropane	26.	U
10061-01-5	cis-1,3-Dichloropropene	26.	U
79-01-6	Trichloroethene	26.	U
124-48-1	Dibromochloromethane	26.	U
79-00-5	1,1,2-Trichloroethane	12.	J
71-43-2	Benzene	26.	U
10061-02-6	trans-1,3-Dichloropropene	26.	U
75-25-2	Bromoform	26.	U
108-10-1	4-Methyl-2-Pentanone	51.	U
591-78-6	2-Hexanone	51.	U
127-18-4	Tetrachloroethene	5.	J
79-34-5	1,1,2,2-Tetrachloroethane	26.	U
108-88-3	Toluene	54.	B ?
108-90-7	Chlorobenzene	26.	U
100-41-4	Ethylbenzene	26.	U
100-42-5	Styrene	26.	U
1330-20-7	Xylene (total)	26.	U

ecology and environment

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN540

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 1. (g/mL) G Lab File ID: V8851

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. Date Analyzed: 11/12/87

Column: (pack/cap) CAP Dilution Factor: .2020

Number TICs found: 7 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	124-38-9	CARBON DIOXIDE	.93	600.	BJ
2.	- -	UNKNOWN	3.08	200.	J
3.	- -	UNKNOWN	11.95	50.	J
4.	- -	UNKNOWN HYDROCARBON	20.42	30.	J
5.	- -	UNKNOWN	19.40	30.	J
6.	- -	UNKNOWN	5.47	40.	J
7.	- -	UNKNOWN HYDROCARBON	4.70	30.	J
8.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN540

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027051

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. dec. 4. Date Extracted: 10/ 5/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	bis(2-Chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	350.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	bis(2-Chloroisopropyl)ether	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	350.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	350.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	350.	U
91-57-6	2-Methylnaphthalene	27.	J
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	46.	BJ
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

075

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN540

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027051

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. dec. 4. Date Extracted: 10/ 5/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	350.	U
86-30-6	N-Nitrosodiphenylamine(1)	1700.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	38.	J
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	1300.	B
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	1700.	U
85-68-7	Butylbenzylphthalate	89.	J
91-94-1	3,3'-Dichlorobenzidine	350.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	270.	BJ
117-84-0	Di-n-octylphthalate	98.	J
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from diphenylamine

080

ecology and environment

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN540

Lab Name: TRILAB Contract: 68-01-7407

Lab Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

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

Sample wt/vol: 30. (g/mL) G Lab File ID: Q8027051

Level: (low/med) LOW Date Received: 10/ 2/87

% Moisture: not dec. 4. dec. 4. Date Extracted: 10/ 5/87

Extraction: (SepF/Cont/Sonc) Date Analyzed: 10/17/87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN ALDOL CONDENSATION	4.55	90000.	J
2.	- -	UNKNOWN	3.88	3000.	J
3.	- -	UNKNOWN ESTER	8.98	3000.	J
4.	2216-33-3	OCTANE, 3-METHYL	4.88	2000.	BJ
5.	- -	UNKNOWN HYDROCARBON	14.02	1000.	J
6.	- -	UNKNOWN PHTHALATE	22.77	1000.	J
7.	- -	UNKNOWN HYDROCARBON	20.55	1000.	J
8.	- -	UNKNOWN HYDROCARBON	18.98	800.	J
9.	- -	UNKNOWN HYDROCARBON	17.43	700.	J
10.	- -	UNKNOWN C7 KETONE	6.70	1000.	J
11.	- -	UNKNOWN C6 KETONE	3003.22	1000.	J
12.	- -	UNKNOWN HYDROCARBON	23.20	900.	J
13.	- -	UNKNOWN HYDROCARBON	16.82	500.	J
14.	2216-34-4	OCTANE,4-METHYL	4.72	1000.	BJ
15.	- -	UNKNOWN	7.75	1000.	J
16.	- -	UNKNOWN HYDROCARBON	19.72	700.	J
17.	- -	UNKNOWN HYDROCARBON	10.98	500.	J
18.	- -	UNKNOWN HYDROCARBON	22.00	700.	J
19.	1120-21-4	UNDECANE	22.00	500.	J
20.	- -	UNKNOWN AROMATIC	20.45	700.	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

001

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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN 540

ame: TRILAB Contract: 68-01-7407

Code: TRILAB Case No.: 8167 SAS No.: SDG No.: EN538

rix: (soil/water) SOIL Lab Sample ID: _____

e wt/vol: 30. (g/mL) G Lab File ID: C1082

el: (low/med) LOW Date Received: 10/ 2/87

sture: not dec. 4. dec. 0. Date Extracted: 10/ 5/87

raction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/17/87

leanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	9.	U
319-85-7	beta-BHC	9.	U
319-86-8	delta-BHC	9.	U
58-89-9	gamma-BHC(Lindane)	9.	U
76-44-8	Heptachlor	9.	U
309-00-2	Aldrin	9.	U
1024-57-3	Heptachlor epoxide	9.	U
959-98-8	Endosulfan I	9.	U
60-57-1	Dieldrin	17.	U
72-55-9	4,4'-DDE	17.	U
72-20-8	Endrin	17.	U
33213-65-9	Endosulfan II	17.	U
72-54-8	4,4'-DDD	17.	U
1031-07-8	Endosulfan Sulfate	17.	U
50-29-3	4,4'-DDT	17.	U
72-43-5	Methoxychlor	83.	U
53494-70-5	Endrin Ketone	17.	U
5103-71-9	Alpha Chlordane	83.	U
5103-74-2	Gamma Chlordane	83.	U
8001-35-2	Toxaphene	170.	U
12674-11-2	Aroclor-1016	83.	U
11104-28-2	Aroclor-1221	83.	U
11141-16-5	Aroclor-1232	83.	U
53469-21-9	Aroclor-1242	83.	U
12672-29-6	Aroclor-1248	83.	U
11097-69-1	Aroclor-1254	170.	U
11096-82-5	Aroclor-1260	170.	U

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 5/2/88

SUBJECT: Review of Region V CLP Data
Received for Review on 12-9-87

FROM: Curtis Ross, Director (5SCRL)
Central Regional Laboratory

TO: Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME: U.S. SCRAP SMO Case No. 8167

EPA Data Set No. SF4493/4494 No. of Samples: 5 D.U./Activity Numbers Y905/C72ZZ

CRL No. 88FC01S88-S90:88FC02S41,S42

SMO Traffic No. EN538-542

CLP Laboratory: Triangle Hrs. Required for Review: 5

PAN:

Following are our findings:

( ) Data are acceptable for use.
(✓) Data are acceptable for use with qualifications referenced above. See Data Qualifier sheets and Calibration Outlier forms for flags and additional comments.
( ) Data are preliminary - pending verification by Contractor Laboratory.
See Case Summary above.
( ) Data are unacceptable.

cc: Carla Dampsey, CLP Quality Assurance Officer, Analytical Operations Branch James Petty, Chief Quality Assurance Researach, EMSL, Las Vegas.

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U.S. Scrap Case 8167

This case covers 5 soil samples for VOA, SV and Pesticide analysis.

A. Holding Times: ACCEPTABLE

B. Surrogates: Surrogates are acceptable

VOA	11 of 66 out
SV	1 of 54 out
Pest	0 of 9

C. MS/MSD:

	%R	R%D
VOA	2/10 out	1/5 out
SV	4/22 out	0/11 out
Pest	---	0/6 out

All of the %R for pesticides were either 0 or below contract requirements. The lab narrative did not explain the problem.

D. Method Blank: The volatile method blanks had hits similar to some of the samples. The level found in the blanks is for smaller than found in the sample. The blank hits are listed on the related ODAS samples forms. The method blanks are acceptable.

E. Calibrations: Acceptable
See calibration form

F. Tuning: Acceptable

G. Internal Standards: Acceptable

H. Pesticides: Acceptable
See Pesticide MS/MSD

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Compound Sample Blank CRQL

	Compound	Sample	Blank	CRQL	Volatile
EN 538	Ethylbenzene	250B	0.3	5	HRS
	Xylene	550B	1.0	5	HRS
	*Methylene Chloride	850B	3	5	HRS
	Vinyl Chloride	77	10U	10	HRS
	1,2-dichloroethane	1J	5U	5	--
	Benzene	8	5U	5	--
EN539	Methylene Chloride	1300B	3	5	HRS
EN540	Methylene Chloride	2300B	3	5	HRS
EN541	Methylene Chloride	380B	10	5	HRS
EN542	Methylene Chloride	500	5U	5	HRS

Special Considerations

A check of the volatile blanks against the samples indicate that the level found in the blanks would not account for the large hits for methylene chloride, ethylbenzene and total xylene. Since these hits are 10X the blank value they can be used for HRS. Check the OADS form for other volatile values.

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111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL 312-663-9415
International Specialists in the Environment

CRL Receipt Date 11/4 FIT Receipt Date 11/19 Review Completed 11/23/87

TO: ~~US~~ Jeff Carman

FROM: Zena Gold-Kaufman

SUBJECT: US SCRAP

PAN: ILC102 CASE # 8167

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
#	Low Soil	# 5	Low Soil
	Low Water		Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status _____ Completed!!

Incomplete, awaiting: _____

FIT Data Review Findings:

Lead is estimated due to high recovery

1 hr charged to above PAN #

***Check Data Sheets for Transcription E

✓ Compounds were detected in s

Book No. 7 Page No. 32

26U:001

week ending 12/5 Zgr

7

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15 PAGES
RCD
11/19/87

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 11-15-87

SUBJECT: Review of Region V CLP Data
Received for Review on 11-4-87

FROM: Curtis Ross, Director (5SCRL)
Central Regional Laboratory Jerry Thurkow

TO: Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME: U. S. SCRAP SMC case No. 8167

EPA Data Set No. SF4494/SF4493 No. of Samples: 5 D.U./Activity Numbers Y905/C72100

CRL No. 88FC02S41, S42; 88FC01S88 - S90

SMC Traffic No. MEP625, 626, 761 - 763

CLP Laboratory: CENTEC Hrs. Required for Review: 2½

Following are our findings:

This review covers 5 soil samples analyzed for metals and cyanide. Lead spike recovery is 129% and biased high. Lead values are estimated (J). Manganese spike recovery (72%) is biased low and Mn values are estimated (J). Spikes for Sb (65%) and cyanide (56%) are biased low and detection limits may be elevated. Antimony and cyanide results are estimated (UJ).

Raymond W. Recore
11.11.87

( ) Data are acceptable for use.
(✓) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Duane Geuder, Quality Assurance Officer, EPA Support Services
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

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CHICAGO, ILLINOIS

CHEMICAL EVALUATION FORM

SITE NAME: US Scrap PAN# IL0102 DATE: 11/23/87

CASE # 8167 UNITS- mg/kg (soils) REVIEWER: ZCR

TOX/ PERS	COMPOUND	CRDL	3-5xCRDL	MRP 625	626	761	762	763		
	ALUMINUM	40	-							
	ANTIMONY	2.4								
	ARSENIC	2		1.5	9.2	7.4	13	1.5		
	BARIUM	40								
	BERYLLIUM	1		[0.5]		[0.5]	[0.7]	[0.5]		
	CADMIUM	1								
	CHROMIUM	2		30		27	33	18		
	COBALT	10		[17]		[16]	[23]			
	COPPER	5		44	33	18	45J	60		
	LEAD J	1		58J	16J	13J	69J	25J		
	MERCURY	.008		0.24				0.12		
	NICKEL	8		41	40	39	50	38		
	SELENIUM	1								
	SILVER	2								
	THALLIUM	2			[3.5]					
	TIN	8								
	VANADIUM	10		[14]	[10]	[23]	[20]	[15]		
	ZINC	4								
	CYANIDE	2								

[redacted]

CENTRAL REGIONAL LABORATORY SAMPLE DATA REPORT

ORGANICS/INORGANICS

SUPERFUND 4444 THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

CASE NUMBER/SAS No. 8107 SITE NAME US Scrap 28 LABORATORY Transfer/Centec DATE SHIPPED 10/7/87

SUPERFUND DU NUMBER 4905 EPA RPM or OSC (S.M.S.)/(CES) CERCLIS NUMBER ID980679434 PAGE 1 OF 1

ACTIVITY NUMBER C72100

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	INORGANIC TRAFFIC REPORT NUMBER	WATER OR LIQUIDS: ACID-BASE NEUTRAL CPDS ORGANIC SCAN UG/L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG/L TOX17564	WATER POLYCHLORINATED BIPHENYLS UG/L PES17144	WATER CHLORINATED PESTICIDES UG/L PES17134	TOTAL METALS IN WATER UG/L MET111	WATER CYANIDE UG/L MIN74919	NITRATE/NITRITE MG/L MIN7284	AMMONIA MG/L MIN7294	RESIDUE, FILTERABLE TDS MG/L MIN7362	RESIDUE, NON-FILT TSS MG/L MIN7372			SEDIMENTS or SOILS: ACID-BASE NEUTRAL CPDS ORGANIC SCAN MG/KG TOX215722	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG/KG TOX215622	SEDIMENTS POLYCHLORINATED BIPHENYLS MG/KG PES211422	SEDIMENT CHLORINATED PESTICIDES MG/KG 211322	TOTAL METALS MG/KG MET413	CYANIDE MG/KG MIN44930	EP TOXICITY METALS MG/KG	AMMONIA MG/KG MIN42925				ecology and environment
[illegible]CU2541	EN541	MCP625													✓	✓	✓	✓	✓	✓						
[illegible]CU2542	EN542	MCP626													✓	✓	✓	✓	✓	✓						

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ORGANICS/INORGANICS

DUE DATE: 12/10/87

ERFUND 4993 THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

NUMBER/SAS No. 81107 SITE NAME US Scrap LABORATORY Triangle / Centec DATE SHIPPED [illegible]

FUND DU NUMBER Y905 EPA RPM or OSC (S.M.S.)/(CES) CERCLIS NUMBER ILD980679484 PAGE 1 OF 1

TY NUMBER C72100

RL LOG UMBER	ORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	INORGANIC TRAFFIC REPORT NUMBER	WATER OR LIQUIDS: ACID-BASE NEUTRAL CPDS ORGANIC SCAN UG/L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG/L TOX17564	WATER POLYCHLORINATED BIPHENYLS UG/L PES 17144	WATER CHLORINATED PESTICIDES UG/L PES17134	TOTAL METALS IN WATER UG/L MET111	WATER CYANIDE UG/L MIN74919	NITRATE NITRITE MG/L MIN7284	AMMONIA MG/L MIN7294	RESIDUE FILTERABLE TDS MG/L MIN7362	RESIDUE, NON-FILT TSS MG/L MIN7372			SEDIMENTS or SOILS: ACID-BASE NEUTRAL CPDS ORGANIC SCAN MG/KG TOX215722	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG/KG TOX215622	SEDIMENTS POLYCHLORINATED BIPHENYLS MG/KG PES211422	SEDIMENT CHLORINATED PESTICIDES MG/KG 211322	TOTAL METALS MG/KG MET413	CYANIDE MG/KG MIN44930	EP TOXICITY METALS MG/KG	AMMONIA MG/KG MIN42925				
FC01588	EN538	MEP761													✓	✓	✓	✓	✓	✓						
FC01589	EN539	MEP762													✓	✓	✓	✓	✓	✓						
FC01590	EN540	MEP763													✓	✓	✓	✓	✓	✓						

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CAS
CENTEC ANALYTICAL SERVICES, INC.

P.O. Box 956
2160 INDUSTRIAL DRIVE
SALEM, VIRGINIA 24153
(703) 387-3995

October 19, 1987

RECEIVED
OCT 21 1987
U.S. EPA CENTRAL
REGIONAL LAB

Mr. Curtis Ross
U.S. Environmental Protection Agency Region V
536 South Clark Street
Chicago, Illinois 60605

RE: Inorganic Analyses
Data Package
Case # 8167

Dear Mr. Ross:

Enclosed find our complete data package for the captioned case.

Upon receipt of the enclosures, should you have any questions with respect to same, please feel free to contact the undersigned at the letterhead address.

Sincerely,

CENTEC ANALYTICAL SERVICES

Lewis Billis, Laboratory Manager

LP/bd
Enclosures as Stated

cc: USEPA - SMO, w/Encls.
209 Madison Street, Suite 200
Alexandria, Virginia 22314

USEPA - EMSL, w/Encls.
Data Audit Staff
944 E. Harmon, Executive Center
Las Vegas, Nevada 89109

QC EXCEPTION SUMMARY REPORT

CASE # 8167
DATA SET # SF4493, 4494
LAB Q.C.# 209
DATE: Nov. 11 1987

SITE U.S. Scrap
LAB Centec
REVIEWED BY R. Riccione

MATRIX: _____ WATER SAMPLE SPK. _____
CONC. : _____ WATER SAMPLE DUP. _____
MATRIX: soil SOIL SAMPLE SPK. MEP761
CONC. : low SOIL SAMPLE DUP. MEP761

	OVERALL CASE QC									MATRIX SPECIFIC QC						SAMPLE SPECIFIC QC		FIELD QC			REGIONAL QC			OTHER/ COMMENTS
	Holding Time	Cal Blanks	Init Calver	Contin Calver	Prep Blk AQ	Prep Blk SOL	ICS %R	LCS % AQ	LCS % SOL	Sol Dup RPD	Sol Spk %R	AQ Dup RPD	AQ Spk %R	Ser Dilu AQ	Ser Dilu SOL	GFAA Dup	GFAA Spike	Blank	Dup RPD	Spike %R	Blind Blank	Blind Spike %R	Split Sample RPD	
inum																								
nony											65													
ic																								
m																								
ium																								
ium																								
m																								
nium																								
l																								
r																								
										27<5	109													
sium																								
nese										29<35	72													
y																								
um																								
m																								
n																								
m																								
											96													

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U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

CAS
CENTEC ANALYTICAL SERVICES, INC.

Date 10/19/87

COVER PAGE
INORGANIC ANALYSES DATA PACKAGE

Lab Name CAS Case No. 8167

SOW No. 784 Q.C. Report No. 209

Sample Numbers

EPA No.	Lab ID No.	EPA No.	Lab ID No.
MEP625	67472		
MEP626	67584		
MEP761	67218		
MEP762	67272		
MEP763	67273		

Comments:

ICP Interelement and background corrections applied? Yes ✓ No ____.

If yes, corrections applied before ✓ or after ____ generation of raw data.

Footnotes:

NR - not required by contract at this time

Form I:

Value - If the result is a value greater than or equal to the instrument detection limit but less than the contract required detection limit, report the value in brackets (i.e., [10]). Indicate the analytical method used with P (for ICP/Flame AA) or F (for furnace).

U - Indicates element was analyzed for but not detected. Report with the detection limit value (e.g., 10U).

E - Indicates a value estimated or not reported due to the presence of interference. Explanatory note included on cover page.

s - Indicates value determined by Method of Standard Addition.

R - Indicates spike sample recovery is not within control limits.

* - Indicates duplicate analysis is not within control limits.

+ - Indicates the correlation coefficient for method of standard addition is less than 0.995

M - DUPLICATE FURNACE INJECTIONS >20 RPD

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I A

U.S. EPA Contract Laboratory Program
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703/557-2490 FTS: 8-557-2490

EPA Sample No. MEP 625

Date 10/9/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME CAS

CASE NO. 8167

SOW NO. 784

Lab Receipt Date 10-8-87

LAB SAMPLE ID. NO. 67472

QC REPORT NO. 209

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ____ Soil ✓ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	10400	P	13.	Magnesium	26500	P
2.	Antimony	28U R	P	14.	Manganese	449 *R	P
3.	Arsenic	15	F	15.	Mercury	0.24	CV
4.	Barium	[53]	P	16.	Nickel	41	P
5.	Beryllium	[0.5]	P	17.	Potassium	3200	P
6.	Cadmium	1.6U	P	18.	Selenium	1.6U	F
7.	Calcium	49800	P	19.	Silver	3.6U	P
8.	Chromium	30	P	20.	Sodium	[270]	P
9.	Cobalt	[17]	P	21.	Thallium	3.3U	F
10.	Copper	44	P	22.	Tin	17U	P
11.	Iron	26000	P	23.	Vanadium	[14]	P
12.	Lead	58 *R	F	24.	Zinc	136	P

Cyanide 1.2U R Percent Solids (%) 88.5

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: Dry Weight Factors (for conversion to mg/kg) P=0.521
F=0.544

Sample Description: Black, medium

Lab Manager [illegible]

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CAS
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Form I B

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MEP 626

Date 10/8/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME CAS
CASE NO. 8167
SOW NO. 784
Lab Receipt Date 10-9-87
LAB SAMPLE ID. NO. 67584
QC REPORT NO. 209

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ____ Soil ✓ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	10400	P	13.	Magnesium	31400	P
2.	Antimony	28U R	P	14.	Manganese	491 *R	P
3.	Arsenic	9.2	F	15.	Mercury	0.1U	CV
4.	Barium	[30]	P	16.	Nickel	40	P
5.	Beryllium	0.5U	P	17.	Potassium	[1970]	P
6.	Cadmium	1.1U	P	18.	Selenium	1.6U	F
7.	Calcium	55500	P	19.	Silver	3.6U	P
8.	Chromium	4.7U	P	20.	Sodium	[243]	P
9.	Cobalt	12U	P	21.	Thallium	[3.5]	F
10.	Copper	33	P	22.	Tin	17U	P
11.	Iron	25700	P	23.	Vanadium	[10]	P
12.	Lead S	16 *R	F	24.	Zinc	64	P
	Cyanide	1.0U R			Percent Solids (%)	96.7	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: Dry Weight Factors (for conversion to mg/kg) P=0.52
F=0.531

Sample Description: Grey coarse

Lab Manager [illegible]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I C

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MEP 761

Date 10/19/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME CAS
SDW NO. 784
LAB SAMPLE ID. NO. 67218

CASE NO. 8167
Lab Receipt Date 10-1-87
QC REPORT NO. 209

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ____ Soil ✓ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	12600	P	13.	Magnesium	30200	P
2.	Antimony	29u R	P	14.	Manganese	577 * R J	P
3.	Arsenic	7.4 J	F	15.	Mercury	0.1u	CV
4.	Barium	[52]	P	16.	Nickel	39	P
5.	Beryllium	[0.5]	P	17.	Potassium	3140	P
6.	Cadmium	1.6u J	P	18.	Selenium	1.7u	F
7.	Calcium	65900	P	19.	Silver	3.8u	P
8.	Chromium	27 J	P	20.	Sodium	[318]	P
9.	Cobalt	[4u]	P	21.	Thallium	3.3u	F
10.	Copper	18	P	22.	Tin	~~17u~~	P
11.	Iron	25400	P	23.	Vanadium	[23]	P
12.	Lead S	13 * R	F	24.	Zinc	67	P
Cyanide		1.1u R			Percent Solids (%)	81.7	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: Dry Weight Factors (for conversion to mg/kg) P=0.541
F=0.551

Sample Description: Dark brown medium

Lab Manager [illegible]

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CAS
CENTEC ANALYTICAL SERVICES, INC.

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Form I D

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MEP 762

Date 10/19/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME - CAS
CASE NO. 8167
SDG NO. 784
Lab Receipt Date 10-2-87
LAB SAMPLE ID. NO. 67272
QC REPORT NO. 209

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ____ Soil ✓ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	12500	P	13.	Magnesium	4040	P
2.	Antimony	35U R	P	14.	Manganese	592 * R	P
3.	Arsenic	13	F	15.	Mercury	0.1U	CV
4.	Barium	[86]	P	16.	Nickel	50	P
5.	Beryllium	[0.7]	P	17.	Potassium	3770	P
6.	Cadmium	2.0U	P	18.	Selenium	1.7U	F
7.	Calcium	74220	P	19.	Silver	4.6U	P
8.	Chromium	33	P	20.	Sodium	[321]	P
9.	Cobalt	[23]	P	21.	Thallium	[4.1]	F
10.	Copper	45	P	22.	Tin	21U	P
11.	Iron	32200	P	23.	Vanadium	[20]	P
12.	Lead	69 * R	F	24.	Zinc	106	P
Cyanide		1.4U R			Percent Solids (%)	71.7	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: Dry Weight Factors (for conversion to mg/kg) P= 0.653
F= 0.572

Sample Description: Grey, coarse

Lab Manager [illegible]

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CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I F

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MEP 763

Date 10/19/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME CAS
CASE NO. 8167
SAS NO. 784
Lab Receipt Date 10-2-87
LAB SAMPLE ID. NO. 67273
QC REPORT NO. 209

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ____ Soil ✓ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	9520	P	13.	Magnesium	43600	P
2.	Antimony	27U R	P	14.	Manganese	536 * R	P
3.	Arsenic	15	F	15.	Mercury	0.12	CV
4.	Barium	[31]	P	16.	Nickel	38	P
5.	Beryllium	[0.5]	P	17.	Potassium	3210	P
6.	Cadmium	1.5U	P	18.	Selenium	1.4U	F
7.	Calcium	77500	P	19.	Silver	3.6U	P
8.	Chromium	18	P	20.	Sodium	[257]	P
9.	Cobalt	12U	P	21.	Thallium	[3.9]	F
10.	Copper	60	P	22.	Tin	16U	P
11.	Iron	24300	P	23.	Vanadium	[15]	P
12.	Lead	25 * R J	F	24.	Zinc	66	P
Cyanide		1.7U R			Percent Solids (%)	96.3	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: Dry Weight Factors (for conversion to mg/kg) P=0.510
F=0.470

Sample Description: Gray, coarse

Lab Manager: [illegible]

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ICP- OC13A
OC14A (Sb, Cr)

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form III - A

Q. C. Report No. 209

BLANKS

LAB NAME CAS

CASE NO. 8167

DATE 10/19/87

UNITS ug/L

Matrix Soil

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank[1] 1 MG/KG	2
Metals:							
1. Aluminum	52U	52U	52U	52U	52U	26U	
2. Antimony	53U	53U	53U	53U	53U	26U	
OC14B 3. Arsenic	3U	3U	3U			1.5U	
4. Barium	2U	2U	2U	2U	2U	[1.5]	
5. Beryllium	1U	1U	1U	1U	1U	0.5U	
6. Cadmium	3U	3U	3U	3U	3U	1.5U	
7. Calcium	59U	59U	59U	59U	59U	30U	
8. Chromium	9U	10	9U	9U	9U	4.5U	
9. Cobalt	23U	23U	23U	23U	23U	12U	
10. Copper	7U	7U	7U	7U	7U	3.5U	
11. Iron	45U	45U	45U	45U	45U	22U	
OC14A 12. Lead	2U	2U	2U	2U		1.0U	
13. Magnesium	95U	95U	95U	95U	95U	48U	
14. Manganese	2U	2U	2U	2U	2U	1.0U	
15. Mercury	0.2U	0.2U				0.1U	
16. Nickel	20U	20U	20U	20U	20U	10U	
17. Potassium	738U	738U	738U	738U	738U	369U	
C13C 18. Selenium	3U	3U	3U	3U	3U	1.5U	
19. Silver	7U	7U	7U	7U	7U	3.5U	
20. Sodium	87U	87U	87U	87U	87U	44U	
OC14D 21. Thallium	6U	6U	6U			[3.2]	
22. Tin	32U	32U	32U	32U	32U	16U	
23. Vanadium	15U	15U	15U	15U	15U	7.5U	
24. Zinc	11U	11U	11U	11U	11U	5.5U	
Other:							
Cyanide	10U	10U				1.0U	

[1] Reporting Units: aqueous, ug/l; solid, mg/kg

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CAS
CENTEC ANALYTICAL SERVICES, INC.

Form III -B

Q. C. Report No. 209

BLANKS

LAB NAME CAS

CASE NO. 8167

DATE 10/19/87

UNITS ug/L

Matrix Soil

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank[1] 1	2
Metals:							
1. Aluminum		52U					
2. Antimony		53U					
3. Arsenic							
4. Barium		2U					
5. Beryllium		1U					
6. Cadmium		3U					
7. Calcium		59.2					
8. Chromium		10					
9. Cobalt		23U					
10. Copper		7U					
11. Iron		45U					
C14C 12. Lead	2U	2U					
13. Magnesium		95U					
14. Manganese		2U					
15. Mercury							
16. Nickel		20U					
17. Potassium		738U					
15B 18. Selenium	3U	3U	[4.2]				
19. Silver		7U					
20. Sodium		87.1					
C14D 21. Thallium	6U	6U					
22. Tin		32U					
23. Vanadium		15U					
24. Zinc		11U					
Other:							
Cyanide							

[1] Reporting Units: aqueous, ug/l; solid, mg/kg

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CAS
CENTEC ANALYTICAL SERVICES, INC.

Form III-C

Q. C. Report No. 209

BLANKS

LAB NAME CAS

CASE NO. 8167

DATE 10/19/87

UNITS ug/L

Matrix Soil

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank[1] 1	2
Metals:							
1. Aluminum							
2. Antimony							
3. Arsenic							
4. Barium							
5. Beryllium							
6. Cadmium							
7. Calcium							
8. Chromium							
9. Cobalt							
10. Copper							
11. Iron							
12. Lead	2u	2u	2u				
13. Magnesium							
14. Manganese							
15. Mercury							
16. Nickel							
17. Potassium							
18. Selenium							
19. Silver							
20. Sodium							
21. Thallium							
22. Tin							
23. Vanadium							
24. Zinc							
Other:							
Cyanide							

[1] Reporting Units: aqueous, ug/l; solid, mg/kg

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CAS
CENTEC ANALYTICAL SERVICES, INC.

Form 7

Q. C. Report No. 209

SPIKE SAMPLE RECOVERY

MEP761/67218 Mercury Spike
MEP761/67218 Cyanide Spike
MEP761/67218 Furnace Spike

LAB NAME CAS

DATE 10/19/87

CASE NO. 8167
EPA Sample No. MEP761
Lab Sample ID No. 67218
Units mg/kg

Matrix Soil

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	%R[1]	
Metals:						
1. Aluminum	75-125		12600		NR	
2. Antimony	-	189 J	29UL	290	65	R
3. Arsenic	-	22.4	7.4	19.4	77	
4. Barium	-	1280	[52]	1160	106	
5. Beryllium	-	31	[0.5]	29	105	
6. Cadmium	-	28	1.6UL	29	97	
7. Calcium	-		65900		NR	
8. Chromium	-	161	27	116	116	
9. Cobalt	-	315	[16]	290	103	
10. Copper	-	187	18	145	117	
11. Iron	-		25400		NR	
12. Lead	-	44.1	13.0-S	24.2	129	R
13. Magnesium	-		30200		NR	
14. Manganese	-	787	577	290	72	R
15. Mercury	-	0.59	0.1UL	0.48	123	
16. Nickel	-	336	39	290	102	
17. Potassium	-		3140		NR	
18. Selenium	-	5.3	1.7UL	4.8	110	
19. Silver	-	27	3.8UL	29	93	
20. Sodium	-		[318]		NR	
21. Thallium	-	25	3.3UL	24.2	106	
22. Vanadium	-	327	[23]	290	105	
23. Zinc	-	389	67	290	111	
Other: Tin		323	17UL	290	111	
Cyanide	-	6.85	1.1UL	12.2	56	R

[1] %R = ((SSR - SR)/SA) x 100

R - out of control

NR - Not required

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CAS
CONTEC ANALYTICAL SERVICES, INC.

Form VI

Q. C. Report No. 209

DUPLICATES

MEP761/67218 MERCURY DUP
MEP761/67218 CYANIDE DUP
MEP761/67218 FURNACE DUP

LAB NAME CAS

CASE NO. 8117

EPA Sample No. MEP761

Lab Sample ID No. 67218

DATE 10/19/87

Units mg/kg

Matrix Soil

Compound	Control Limit[1]	Sample(S)	Duplicate(D)	RPD[2]	
Metals:					
1. Aluminum		12600	13700	8	
2. Antimony		29U	27U	NC	
3. Arsenic	± 5.6	7.4	6.3	16	
4. Barium		[52]	[45]	NC	
5. Beryllium		[0.5]	[0.5]	NC	
6. Cadmium		1.6U	1.5U	NC	
7. Calcium		65900	67400	2	
8. Chromium		27	25	8	
9. Cobalt		[16]	[16]	NC	
10. Copper		18	22	20	
11. Iron		25400	24300	4	
12. Lead	± 2.8	13 (S)	17 (S)	27	*
13. Magnesium		30200	31800	5	
14. Manganese		577	433	29	*
15. Mercury		0.1U	0.1U	NC	
16. Nickel		39	34	14	
17. Potassium		3140	3550	12	
18. Selenium		1.7U	1.7U	NC	
19. Silver		3.8U	3.6U	NC	
20. Sodium		[318]	[308]	NC	
21. Thallium		3.3U	3.4U	NC	
22. Vanadium		[23]	[21]	NC	
23. Zinc		67	57	16	
Other: Tin		17U	16U	NC	
Cyanide		1.1U	1.2U	NC	

* Out of Control

[1] To be added at a later date.

[2] RPD = [|S - D|/((S - D)/2)] x 100

NC - Non calculable RPD due to value(s) less than CRDL