WESTON Analytics Use Only
9112L659

Custody Transfer Record/Lab Work Request

WESTON

Page 1 of 1

Client: Westinghouse Hanford Co/J.D. Fancher
Est. Final Proj. Sampling Date:
Work Order #: 6168-02-01
Project Contact/Phone #: J.D. Fancher (509) 376-2081
AD Project Manager: C King
QC: CLP Del: CLP TAT: 35 day
Date Rec'd: 12/7/91 Date Due: 1/11/91
Account #: WS-Hanford

Refrigerator #																
#/Type Container	Liquid					5	Sub		3	1						
	Solid															
Volume	Liquid	125 ml				1000 ml	1000 ml		250 ml	250 ml						
	Solid															
Preservatives																
ANALYSES REQUESTED		ORGANIC							INORG							
		VOA	BNA	Pest/PCB	Herb				Metal	CN						
WESTON Analytics Use Only		Ulez4pk				Ulez4pk 2	BNA 3		TMBL 4	SCN 5						

MATRIX CODES:	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	1			2	3		4	5					
S - Soil	001	(RAD) B018L8			Soil	12-5-91	1355	✓			✓	✓		✓	✓					
SE - Sediment	002	B018MD			Soil	12-5-91	1407	✓			✓	✓		✓	✓					
SO - Solid																				
SL - Sludge																				
W - Water																				
O - Oil																				
A - Air																				
DS - Drum Solids																				
DL - Drum Liquids																				
L - EP/TCLP Leachate																				
WI - Wipe																				
X - Other																				
F - Fish																				

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

DATE/REVISIONS:

Special Instructions: From 100 Areas Drilling Project D-1011 add RAD INFO to COC #001 is RAD on
See WHC Chain of Custody

1) CLP VOA
2) CLP Semi-VOA, PCB/PEST
3) Gross Alpha, Gross Beta, Gamma Spec, Alpha Spec, Sr-90, Tc-99, C-14
4) CLP ICP/AA Metals, Hg
5) CLP CN

2.
3.
4.
5.
6.

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Samples were:
1) Shipped ✓ or Hand Delivered ___
Airbill #
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Relinquished by	Received by	Date	Time
Emery	P King	12/7/91	2:30 pm
	P King	12/9/91	

Relinquished by	Received by	Date	Time
	P King	12/9/91	

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

RFW 21-21-001/A-7/91 ___ L372 ___ L373 ___ L375 ___ L377 ___ L378 Ref# N/A Cooler# N/A 381-596a

START 0000002 9112L659-WES-258 0044110016 72

Roy F. Weston, Inc. - Lionville Laboratory
Volatiles by GC/MS, HSL List

RFW Batch Number: 9112L659 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 01/06/92 16:19 Page: 1a

	Cust ID:	B018L8		B018L8		B018L8		B018M0		VBLK		VBLK	
Sample Information	RFW#:	001		001 MS		001 MSD		002		91LVQ065-MB1		91LVQ066-MB1	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	D.F.:	0.980		1.00		1.00		1.00		1.00		1.00	
	Units:	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Surrogate Recovery	Toluene-d8	105	%	97	%	98	%	105	%	101	%	103	%
	Bromofluorobenzene	99	%	93	%	90	%	103	%	95	%	106	%
	1,2-Dichloroethane-d4	121	%	96	%	111	%	92	%	102	%	102	%
			fl		fl		fl		fl		fl		fl
Chloromethane		11	U	11	U	11	U	10	U	10	U	10	U
Bromomethane		11	U	11	U	11	U	10	U	10	U	10	U
Vinyl Chloride		11	U	11	U	11	U	10	U	10	U	10	U
Chloroethane		11	U	11	U	11	U	10	U	10	U	10	U
Methylene Chloride		2	J	2	J	1	J	8	B	5	U	5	U
Acetone		120	B	28	B	130	B	32	B	9	J	3	J
Carbon Disulfide		6	U	6	U	6	U	5	U	5	U	5	U
1,1-Dichloroethene		6	U	79	%	43 *	%	5	U	5	U	5	U
1,1-Dichloroethane		6	U	6	U	6	U	5	U	5	U	5	U
1,2-Dichloroethene (total)		6	U	6	U	6	U	5	U	5	U	5	U
Chloroform		6	U	6	U	6	U	5	U	5	U	5	U
1,2-Dichloroethane		6	U	6	U	6	U	5	U	5	U	5	U
2-Butanone		11	U	11	U	11	U	10	U	10	U	10	U
1,1,1-Trichloroethane		6	U	6	U	6	U	5	U	5	U	5	U
Carbon Tetrachloride		6	U	6	U	6	U	5	U	5	U	5	U
Vinyl Acetate		11	U	11	U	11	U	10	U	10	U	10	U
Bromodichloromethane		6	U	6	U	6	U	5	U	5	U	5	U
1,2-Dichloropropane		6	U	6	U	6	U	5	U	5	U	5	U
cis-1,3-Dichloropropene		6	U	6	U	6	U	5	U	5	U	5	U
Trichloroethene		6	U	106	%	94	%	5	U	5	U	5	U
Dibromochloromethane		6	U	6	U	6	U	5	U	5	U	5	U
1,1,2-Trichloroethane		6	U	6	U	6	U	5	U	5	U	5	U
Benzene		6	U	98	%	92	%	5	U	5	U	5	U
Trans-1,3-Dichloropropene		6	U	6	U	6	U	5	U	5	U	5	U
Bromoform		6	U	6	U	6	U	5	U	5	U	5	U
4-Methyl-2-pentanone		11	U	11	U	11	U	10	U	10	U	10	U
2-Hexanone		11	U	11	U	11	U	10	U	10	U	10	U
Tetrachloroethene		6	U	6	U	6	U	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane		6	U	6	U	6	U	5	U	5	U	5	U

*= Outside of EPA CLP QC limits.

9613441.1673 0000004

Cust ID:	B018L8	B018L8	B018L8	B018M0	VBLK	VBLK
RFW#:	001	001 MS	001 MSD	002	91LVQ065-MB1	91LVQ066-MB1
Toluene	1 J	97 %	98 %	5 U	5 U	5 U
Chlorobenzene	6 U	105 %	107 %	5 U	5 U	5 U
Ethylbenzene	6 U	6 U	6 U	5 U	5 U	5 U
Styrene	6 U	6 U	6 U	5 U	5 U	5 U
Xylene (total)	6 U	6 U	6 U	5 U	5 U	5 U

*= Outside of EPA CLP QC limits.

9613441.1674 0000005

WESTON

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 12-07-91
RFW #: 9112L659, GC/MS VOLATILE
W.O. #: 6168-02-01

NARRATIVE

The set of samples consisted of two (2) soil samples collected on 12-05-91.

The samples were analyzed according to criteria set forth in CLP SOW 02-88 (Rev. 05-89) for TCL Volatile target compounds on 12-10,11-91.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analyses:

1. Non-target compounds were not detected in these samples.

2. All surrogate recoveries were within EPA QC limits.

3. One (1) of (10) matrix spike recoveries was outside EPA QC limits.

4. The laboratory blanks contained the common contaminant acetone at levels less than the CRQL. The laboratory blank 91LVY218-MB1 also contained the common contaminant methylene chloride at a level less than 3X the CRQL.

5. All internal standard area and retention time criteria were met.

Jack R. Tuschall, Ph.D. 1.13.92
Date
Laboratory Manager
Lionville Analytical Laboratory

9613441.1676 0000022

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B018L8

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL

Lab Sample ID: 9112L659-001

Sample wt/vol: 5.10 (g/mL) G

Lab File ID: Q121012

Level: (low/med) LOW

Date Received: 12/07/91

% Moisture: not dec. 9

Date Analyzed: 12/10/91

Column: (pack/cap) PACK

Dilution Factor: 0.980

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

CAS NO.	COMPOUND		
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	2	J
67-64-1	Acetone	120	B
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
10061-01-5	cis-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
10061-02-6	Trans-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	1	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

9613441.1677 0000023

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B018L8

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL

Lab Sample ID: 9112L659-001

Sample wt/vol: 5.10 (g/mL) G

Lab File ID: Q121012

Level: (low/med) LOW

Date Received: 12/07/91

% Moisture: not dec. 9

Date Analyzed: 12/10/91

Column: (pack/cap) PACK

Dilution Factor: 0.980

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM 1 VOA-TIC

12/88 Rev.

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B018MO

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL Lab Sample ID: 9112L659-002

Sample wt/vol: 5.00 (g/mL) G Lab File ID: Y121109

Level: (low/med) LOW Date Received: 12/07/91

% Moisture: not dec. 3 Date Analyzed: 12/11/91

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

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

CAS NO.	COMPOUND		
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	8	B
67-64-1	Acetone	32	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

CLIENT SAMPLE NO.

BO18MO

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL

Lab Sample ID: 9112L659-002

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: Y121109

Level: (low/med) LOW

Date Received: 12/07/91

% Moisture: not dec. 3

Date Analyzed: 12/11/91

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

Roy F. Weston, Inc. - Lionville Laboratory
Semivolatiles by GC/MS, HSL List

RFW Batch Number: 9112L659 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 01/05/92 14:55 Page: 1a

	Cust ID:	B018L8		B018L8		B018L8		B018MO		SBLK		SBLK BS	
Sample Information	RFW#:	001		001 MS		001 MSD		002		91LE1691-MB1		91LE1691-MB1	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	D.F.:	1.00		1.00		1.00		1.00		1.00		1.00	
	Units:	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Surrogate Recovery	Nitrobenzene-d5	73	%	72	%	79	%	70	%	85	%	88	%
	2-Fluorobiphenyl	79	%	77	%	81	%	68	%	79	%	83	%
	p-Terphenyl-d14	122	%	121	%	119	%	96	%	105	%	105	%
	Phenol-d5	79	%	80	%	88	%	74	%	90	%	87	%
	2-Fluorophenol	86	%	85	%	92	%	82	%	99	%	96	%
	2,4,6-Tribromophenol	76	%	73	%	76	%	77	%	82	%	95	%
Phenol		340	U	91 *	%	97 *	%	330	U	330	U	95 *	%
bis(2-Chloroethyl)ether		340	U	350	U	330	U	330	U	330	U	330	U
2-Chlorophenol		340	U	83	%	91	%	330	U	330	U	98	%
1,3-Dichlorobenzene		340	U	350	U	330	U	330	U	330	U	330	U
1,4-Dichlorobenzene		340	U	77	%	83	%	330	U	330	U	87	%
Benzyl alcohol		340	U	350	U	330	U	330	U	330	U	330	U
1,2-Dichlorobenzene		340	U	350	U	330	U	330	U	330	U	330	U
2-Methylphenol		340	U	350	U	330	U	330	U	330	U	330	U
bis(2-Chloroisopropyl)ether		340	U	350	U	330	U	330	U	330	U	330	U
4-Methylphenol		340	U	350	U	330	U	330	U	330	U	330	U
N-Nitroso-Di-n-propylamine		340	U	72	%	79	%	330	U	330	U	82	%
Hexachloroethane		340	U	350	U	330	U	330	U	330	U	330	U
Nitrobenzene		340	U	350	U	330	U	330	U	330	U	330	U
Isophorone		340	U	350	U	330	U	330	U	330	U	330	U
2-Nitrophenol		340	U	350	U	330	U	330	U	330	U	330	U
2,4-Dimethylphenol		340	U	350	U	330	U	330	U	330	U	330	U
Benzoic acid		1700	U	1700	U	1600	U	1600	U	1700	U	1700	U
bis(2-Chloroethoxy)methane		340	U	350	U	330	U	330	U	330	U	330	U
2,4-Dichlorophenol		340	U	350	U	330	U	330	U	330	U	330	U
1,2,4-Trichlorobenzene		340	U	82	%	88	%	330	U	330	U	91	%
Naphthalene		340	U	350	U	330	U	330	U	330	U	330	U
4-Chloroaniline		340	U	350	U	330	U	330	U	330	U	330	U
Hexachlorobutadiene		340	U	350	U	330	U	330	U	330	U	330	U
4-Chloro-3-methylphenol		340	U	88	%	95	%	330	U	330	U	97	%
2-Methylnaphthalene		340	U	350	U	330	U	330	U	330	U	330	U
Hexachlorocyclopentadiene		340	U	350	U	330	U	330	U	330	U	330	U

*= Outside of EPA CLP QC limits.

00000004 0891.1443196

RFW Batch Number: 9112L659 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000

Cust ID:	BO18L8		BO18L8		BO18L8		BO18MO		SBLK		SBLK BS	
RFW#:	001		001 MS		001 MSD		002		91LE1691-MB1		91LE1691-MB1	
2,4,6-Trichlorophenol	340	U	350	U	330	U	330	U	330	U	330	U
2,4,5-Trichlorophenol	1700	U	1700	U	1600	U	1600	U	1700	U	1700	U
2-Chloronaphthalene	340	U	350	U	330	U	330	U	330	U	330	U
2-Nitroaniline	1700	U	1700	U	1600	U	1600	U	1700	U	1700	U
Dimethylphthalate	340	U	350	U	330	U	330	U	330	U	330	U
Acenaphthylene	340	U	350	U	330	U	330	U	330	U	330	U
2,6-Dinitrotoluene	340	U	350	U	330	U	330	U	330	U	330	U
3-Nitroaniline	1700	U	1700	U	1600	U	1600	U	1700	U	1700	U
Acenaphthene	340	U	87	%	93	%	330	U	330	U	91	%
2,4-Dinitrophenol	1700	U	1700	U	1600	U	1600	U	1700	U	1700	U
4-Nitrophenol	1700	U	76	%	82	%	1600	U	1700	U	88	%
Dibenzofuran	340	U	350	U	330	U	330	U	330	U	330	U
2,4-Dinitrotoluene	340	U	79	%	86	%	330	U	330	U	82	%
Diethylphthalate	340	U	350	U	330	U	330	U	330	U	330	U
4-Chlorophenyl-phenylether	340	U	350	U	330	U	330	U	330	U	330	U
Fluorene	340	U	350	U	330	U	330	U	330	U	330	U
4-Nitroaniline	1700	U	1700	U	1600	U	1600	U	1700	U	1700	U
4,6-Dinitro-2-methylphenol	1700	U	1700	U	1600	U	1600	U	1700	U	1700	U
N-Nitrosodiphenylamine (1)	340	U	350	U	330	U	330	U	330	U	330	U
4-Bromophenyl-phenylether	340	U	350	U	330	U	330	U	330	U	330	U
Hexachlorobenzene	340	U	350	U	330	U	330	U	330	U	330	U
Pentachlorophenol	1700	U	69	%	78	%	1600	U	1700	U	100	%
Phenanthrene	340	U	350	U	330	U	330	U	330	U	330	U
Anthracene	340	U	350	U	330	U	330	U	330	U	330	U
Di-n-Butylphthalate	72	J	46	J	41	J	330	U	330	U	330	U
Fluoranthene	340	U	350	U	330	U	330	U	330	U	330	U
Pyrene	340	U	145 *	%	144 *	%	330	U	330	U	113	%
Butylbenzylphthalate	340	U	350	U	330	U	330	U	330	U	330	U
3,3'-Dichlorobenzidine	680	U	700	U	660	U	650	U	670	U	670	U
Benzo(a)anthracene	340	U	350	U	330	U	330	U	330	U	330	U
Chrysene	340	U	350	U	330	U	330	U	330	U	330	U
bis(2-Ethylhexyl)phthalate	340	U	350	U	330	U	330	U	330	U	330	U
Di-n-Octyl phthalate	340	U	350	U	330	U	330	U	330	U	330	U
Benzo(b)fluoranthene	340	U	350	U	330	U	330	U	330	U	330	U
Benzo(k)fluoranthene	340	U	350	U	330	U	330	U	330	U	330	U
Benzo(a)pyrene	340	U	350	U	330	U	330	U	330	U	330	U
Indeno(1,2,3-cd)pyrene	340	U	350	U	330	U	330	U	330	U	330	U
Dibenzo(a,h)anthracene	340	U	350	U	330	U	330	U	330	U	330	U
Benzo(g,h,i)perylene	340	U	350	U	330	U	330	U	330	U	330	U

(1) - Cannot be separated from Diphenylamine. *= Outside of EPA CLP QC limits.

9613441.1681 0000005

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 12-07-91
RFW #: 9112L659, SEMIVOLATILE
W.O. #: 6168-02-01

NARRATIVE

The set of samples consisted of two (2) soil samples collected on 12-05-91.

The samples were extracted on 12-13-91 and analyzed according to criteria set forth in CLP SOW 02/88 (Rev. 05/89) for TCL Semivolatile target compounds on 01-03,04-92.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analyses:

1. Non-target compounds were detected in these samples.

2. All surrogate recoveries were within EPA QC limits.

3. One (1) of eleven (11) blank spike recoveries was outside EPA QC limits.

4. Four (4) of twenty-two (22) matrix spike recoveries were outside EPA QC limits.

5. Internal standard areas were outside QC limits for sample B018L8, B018L8 MS and B018L8 MSD. The associated matrix spike and matrix spike duplicate samples of B018L8 fulfilled the re-analysis requirements.

1.15.92

Jack R. Tuschall, Ph.D. Date
Laboratory Manager
Lionville Analytical Laboratory

9613441.1683 0000018

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B018L8

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL Lab Sample ID: 9112L659-001

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S010306

Level: (low/med) LOW Date Received: 12/07/91

% Moisture: not dec. 3 dec. Date Extracted: 12/13/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/03/92

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
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	1700	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	1700	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

9613441.1684 0000019

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS SHEET

B018L8

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL Lab Sample ID: 9112L659-001

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S010306

Level: (low/med) LOW Date Received: 12/07/91

% Moisture: not dec. 3 dec. Date Extracted: 12/13/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/03/92

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
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	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	340	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	340	U
120-12-7	Anthracene	340	U
84-74-2	Di-n-Butylphthalate	72	J
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	340	U
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	680	U
56-55-3	Benzo(a)anthracene	340	U
218-01-9	Chrysene	340	U
117-81-7	bis(2-Ethylhexyl)phthalate	340	U
117-84-0	Di-n-Octyl phthalate	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	Dibenzo(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U

(1) - Cannot be separated from Diphenylamine

9613441.1685 0000020

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BO18L8

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL

Lab Sample ID: 9112L659-001

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: S010306

Level: (low/med) LOW

Date Received: 12/07/91

% Moisture: not dec. 3 dec.

Date Extracted: 12/13/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/03/92

GPC Cleanup: (Y/N) N pH: 7.4

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

9613441.1686 0000028

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS SHEET

B018MO

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL Lab Sample ID: 9112L659-002

Sample wt/vol: 31.5 (g/mL) G Lab File ID: S010405

Level: (low/med) LOW Date Received: 12/07/91

% Moisture: not dec. 3 dec. Date Extracted: 12/13/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/04/92

GPC Cleanup: (Y/N) N pH: 7.8 Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
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	1600	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	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U

9613441.1687 0000029

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B018MO

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL Lab Sample ID: 9112L659-002

Sample wt/vol: 31.5 (g/mL) G Lab File ID: S010405

Level: (low/med) LOW Date Received: 12/07/91

% Moisture: not dec. 3 dec. Date Extracted: 12/13/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/04/92

GPC Cleanup: (Y/N) N pH: 7.8 Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	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	1600	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	650	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	330	U
117-84-0	Di-n-Octyl phthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U

(1) - Cannot be separated from Diphenylamine

9613441.1688 0000030

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BO18MO

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL Lab Sample ID: 9112L659-002

Sample wt/vol: 31.5 (g/mL) G Lab File ID: S010405

Level: (low/med) LOW Date Received: 12/07/91

% Moisture: not dec. 3 dec. Date Extracted: 12/13/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/04/92

GPC Cleanup: (Y/N) N pH: 7.8 Dilution Factor: 1.00

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.85	200	JA

Roy F. Weston, Inc. - Lionville Laboratory
Pesticide/PCBs by GC, CLP List

Report Date: 01/09/92 16:19

RFW Batch Number: 9112L659 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Page: 1

Sample Information	Cust ID:	BO18L8		BO18L8		BO18L8		BO18MO		PBLK		PBLK BS	
	RFW#:	001		001 MS		001 MSD		002		91LE1683-MB1		91LE1683-MB1	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	D.F.:	1.00		4.00		4.00		0.500		0.500		4.00	
	Units:	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Surrogate: Di-n-butylchlorendate		57	%	122	%	78	%	125	%	90	%	80	%
			fl		fl		fl		fl		fl		fl
Alpha-BHC		8.7	U	35	U	34	U	4.0	U	4.0	U	32	U
Beta-BHC		8.7	U	35	U	34	U	4.0	U	4.0	U	32	U
Delta-BHC		8.7	U	35	U	34	U	4.0	U	4.0	U	32	U
gamma-BHC (Lindane)		8.7	U	72	%	42 *	%	4.0	U	4.0	U	42 *	%
Heptachlor		8.7	U	86	%	51	%	4.0	U	4.0	U	54	%
Aldrin		8.7	U	92	%	52	%	4.0	U	4.0	U	54	%
Heptachlor epoxide		8.7	U	35	U	34	U	4.0	U	4.0	U	32	U
Endosulfan I		8.7	U	35	U	34	U	4.0	U	4.0	U	32	U
Dieldrin		17	U	84	%	50	%	8.0	U	8.0	U	55	%
4,4'-DDE		17	U	70	U	69	U	8.0	U	8.0	U	64	U
Endrin		17	U	82	%	48	%	8.0	U	8.0	U	52	%
Endosulfan II		17	U	70	U	69	U	8.0	U	8.0	U	64	U
4,4'-DDD		17	U	70	U	69	U	8.0	U	8.0	U	64	U
Endosulfan sulfate		17	U	70	U	69	U	8.0	U	8.0	U	64	U
4,4'-DDT		17	U	82	%	48	%	8.0	U	8.0	U	51	%
Methoxychlor		87	U	350	U	340	U	40	U	40	U	320	U
Endrin ketone		17	U	70	U	69	U	8.0	U	8.0	U	64	U
alpha-Chlordane		87	U	350	U	340	U	40	U	40	U	320	U
gamma-Chlordane		87	U	350	U	340	U	40	U	40	U	320	U
Toxaphene		170	U	700	U	690	U	80	U	80	U	640	U
Aroclor-1016		87	U	350	U	340	U	40	U	40	U	320	U
Aroclor-1221		87	U	350	U	340	U	40	U	40	U	320	U
Aroclor-1232		87	U	350	U	340	U	40	U	40	U	320	U
Aroclor-1242		87	U	350	U	340	U	40	U	40	U	320	U
Aroclor-1248		87	U	350	U	340	U	40	U	40	U	320	U
Aroclor-1254		170	U	700	U	690	U	80	U	80	U	640	U
Aroclor-1260		170	U	700	U	690	U	80	U	80	U	640	U

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not requested. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

9613441.1689 0000004

9613441.1690

5A

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE-HANFORD **SAMPLES RECEIVED:** 12-07-91
RFW #: 9112L659, PEST/PCB
W.O. #: 6168-02-01

NARRATIVE

The set of samples consisted of two (2) soil samples collected on 12-05-91.

The samples were extracted on 12-12-91 and analyzed according to criteria set forth in the Contract Laboratory Program for Pesticide and PCB target compounds on 01-08-92.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analyses:

1. Linearity and breakdown criteria were met for all compounds on the primary column except for 4,4'-DDT (RSD of calibration factors exceeded 10%). Quantitation of the target compound was not required.

2. Deviation of calibration factors exceeded 20% for endrin on the SP2100 column on 01-08-92 at 13:28 in standards analyzed prior to the sample extracts.

3. Retention time criteria were exceeded for the following compounds in standards analyzed prior to the sample extracts:

Compound	Column	Date/Time of Analysis
Endosulfan I	SP2250/2401	01-08-92 at 14:37
4,4'-DDD	SP2100	01-08-92 at 13:28

   Larger retention time windows were used for the evaluation of the accompanying data.

4. All surrogate recoveries were within EPA QC limits.

5. One (1) of twelve (12) matrix spike recoveries was outside the EPA QC limits. The matrix spike recovery for gamma-BHC (42%) was outside the EPA QC limit of 46%.

6. One (1) of six (6) blank spike samples was outside the EPA QC limits. The blank spike recovery for gamma-BHC (42%) was outside the EPA QC limit of 46%.

7. The blank spike and matrix spike samples required eight-fold dilutions to maintain the pesticide concentrations within the linear range of the instrument.

1.28.92.

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

Date

9613441.1692 0000013

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B018L8

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL Lab Sample ID: 9112L659-001

Sample wt/vol: 30.2 (g/mL) G Lab File ID: 01079213.20

Level: (low/med) LOW Date Received: 12/07/91

% Moisture: not dec. 9 dec. Date Extracted: 12/12/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/08/92

GPC Cleanup: (Y/N) Y pH: 7.4 Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
319-84-6	Alpha-BHC	8.7	U
319-85-7	Beta-BHC	8.7	U
319-86-8	Delta-BHC	8.7	U
58-89-9	gamma-BHC (Lindane)	8.7	U
76-44-8	Heptachlor	8.7	U
309-00-2	Aldrin	8.7	U
1024-57-3	Heptachlor epoxide	8.7	U
959-98-8	Endosulfan I	8.7	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	87	U
53494-70-5	Endrin ketone	17	U
5103-71-9	alpha-Chlordane	87	U
5103-74-2	gamma-Chlordane	87	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	87	U
11104-28-2	Aroclor-1221	87	U
11141-16-5	Aroclor-1232	87	U
53469-21-9	Aroclor-1242	87	U
12672-29-6	Aroclor-1248	87	U
11097-69-1	Aroclor-1254	170	U
11096-82-5	Aroclor-1260	170	U

JB 1/13/92

FORM 1 PEST 12/88 Rev.

9613441.1693 0000018
ID

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B018MO

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL Lab Sample ID: 9112L659-002

Sample wt/vol: 30.9 (g/mL) G Lab File ID: 01079213.21

Level: (low/med) LOW Date Received: 12/07/91

% Moisture: not dec. 3 dec. Date Extracted: 12/12/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/08/92

GPC Cleanup: (Y/N) N pH: 7.8 Dilution Factor: 0.500

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
319-84-6	Alpha-BHC	4.0	U
319-85-7	Beta-BHC	4.0	U
319-86-8	Delta-BHC	4.0	U
58-89-9	gamma-BHC (Lindane)	4.0	U
76-44-8	Heptachlor	4.0	U
309-00-2	Aldrin	4.0	U
1024-57-3	Heptachlor epoxide	4.0	U
959-98-8	Endosulfan I	4.0	U
60-57-1	Dieldrin	8.0	U
72-55-9	4,4'-DDE	8.0	U
72-20-8	Endrin	8.0	U
33213-65-9	Endosulfan II	8.0	U
72-54-8	4,4'-DDD	8.0	U
1031-07-8	Endosulfan sulfate	8.0	U
50-29-3	4,4'-DDT	8.0	U
72-43-5	Methoxychlor	40	U
53494-70-5	Endrin ketone	8.0	U
5103-71-9	alpha-Chlordane	40	U
5103-74-2	gamma-Chlordane	40	U
8001-35-2	Toxaphene	80	U
12674-11-2	Aroclor-1016	40	U
11104-28-2	Aroclor-1221	40	U
11141-16-5	Aroclor-1232	40	U
53469-21-9	Aroclor-1242	40	U
12672-29-6	Aroclor-1248	40	U
11097-69-1	Aroclor-1254	80	U
11096-82-5	Aroclor-1260	80	U

JLB 1/15/92

Roy F. Weston, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD CO. **SAMPLES RECEIVED:** 12-07-91
RFW #: 9112L659
W.O. #: 6168-02-01

METALS NARRATIVE

The set of samples consisted of two (2) soil samples collected on 12-05-91.

The samples were analyzed according to criteria set forth in CLP SOW 3/90.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. ICVs, CCVs, and LCSs stock standards were purchased from Inorganic Ventures Laboratory.

2. All ICV and CCV values were within control limits.

3. All ICB and CCB values were within control limits.

4. All preparation blank values were within control limits.

5. All LCS results were within the 80-120% control limits.

6. All matrix spike recoveries were within the 75-125% control limits with the exception of Sb, As, Cr, Se and Ni. All corresponding samples were flagged with an "N" according to CLP protocol.

7. All duplicate analyses were within the 20% RPD control limit with the exception of Cr and Ca. All corresponding samples were flagged with an "*" according to CLP protocol.

8. Pb sample results were calculated by the method of standard addition (MSA). All corresponding samples were flagged with an "S" according to CLP protocol.

9. For MSA, results reported on Form 8 are calculated from absorbance values. Results reported on other forms are based on concentration. As indicated in the SOW1LJM01.0, page B-32, differences due to rounding may be found between the MSA values on Form 8 and the results reported on the other forms.

WESTON

10. The code CV is currently in use by the laboratory for both mercury instruments in operation (HG1 and HG2). HG1 is complete with autosampler and software, but still requires manual digestion; HG2 is operated by the analyst, produces a strip chart and also requires manual digestion.

11. HG1 requires less total volume of digestate due to the autosampler analysis. Sample volumes and reagents for mercury determinations in water and soil have been proportionally scaled down to adapt to this semi-automated technique. The sample volume used for water analysis is 33 ml. For soils, 0.1 gram of sample is taken to a final volume of 50 ml (including all reagents).

12. Quarterly Detection Limits for IC2 are included in this package.

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratories

1.30.92
Date

mlj\ clp-met.nar

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 01/29/92

CLIENT: WESTINGHOUSE HANFORD
WORK ORDER: 6168-02-01-0000

WESTON BATCH #: 9112L659

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-001	B018L8	Silver, Total	2.3		MG/KG	2.2
		Aluminum, Total	4760		MG/KG	43.8
		Arsenic, Total	2.2	u	MG/KG	2.2
		Barium, Total	88.3		MG/KG	43.8
		Beryllium, Total	1.1	u	MG/KG	1.1
		Calcium, Total	8850		MG/KG	1100
		Cadmium, Total	1.3		MG/KG	1.1
		Cobalt, Total	11.0	u	MG/KG	11.0
		Chromium, Total	34.4		MG/KG	2.2
		Copper, Total	13.2		MG/KG	5.5
		Iron, Total	10500		MG/KG	21.9
		Mercury, Total	0.11	u	MG/KG	0.11
		Potassium, Total	1100	u	MG/KG	1100
		Magnesium, Total	2470		MG/KG	1100
		Manganese, Total	176		MG/KG	3.3
		Sodium, Total	1100	u	MG/KG	1100
		Nickel, Total	18.5		MG/KG	8.8
		Lead, Total	3.1		MG/KG	0.66
		Antimony, Total	13.1	u	MG/KG	13.1
		Selenium, Total	1.1	u	MG/KG	1.1
		Thallium, Total	2.2	u	MG/KG	2.2
		Vanadium, Total	22.7		MG/KG	11.0
		Zinc, Total	23.4		MG/KG	4.4

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 01/29/92

CLIENT: WESTINGHOUSE HANFORD
WORK ORDER: 6168-02-01-0000

WESTON BATCH #: 9112L659

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-002	B018MO	Silver, Total	2.1	u	MG/KG	2.1
		Aluminum, Total	4610		MG/KG	41.2
		Arsenic, Total	2.1	u	MG/KG	2.1
		Barium, Total	86.6		MG/KG	41.2
		Beryllium, Total	1.0	u	MG/KG	1.0
		Calcium, Total	17100		MG/KG	1030
		Cadmium, Total	1.2		MG/KG	1.0
		Cobalt, Total	10.3	u	MG/KG	10.3
		Chromium, Total	36.5		MG/KG	2.1
		Copper, Total	10.8		MG/KG	5.1
		Iron, Total	10500		MG/KG	20.6
		Mercury, Total	0.10	u	MG/KG	0.10
		Potassium, Total	1030	u	MG/KG	1030
		Magnesium, Total	2490		MG/KG	1030
		Manganese, Total	178		MG/KG	3.1
		Sodium, Total	1030	u	MG/KG	1030
		Nickel, Total	18.7		MG/KG	8.2
		Lead, Total	2.9		MG/KG	0.62
		Antimony, Total	12.4	u	MG/KG	12.4
		Selenium, Total	1.0	u	MG/KG	1.0
		Thallium, Total	2.1	u	MG/KG	2.1
		Vanadium, Total	23.7		MG/KG	10.3
		Zinc, Total	22.4		MG/KG	4.1

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B018L8

Lab Name: ROY F. WESTON, INC - L372 Contract: 6168-02-01

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP659

Matrix (soil/water): SOIL Lab Sample ID: 911265901

Level (low/med): LOW Date Received: 12/07/91

% Solids: 91.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4760.00			P
7440-36-0	Antimony	4.38	U	N	P
7440-38-2	Arsenic	.77	B	N	F
7440-39-3	Barium	88.30			P
7440-41-7	Beryllium	.37	B		P
7440-43-9	Cadmium	1.30			P
7440-70-2	Calcium	8850.00			P
7440-47-3	Chromium	34.40		N*	P
7440-48-4	Cobalt	6.70	B		P
7440-50-8	Copper	13.20			P
7439-89-6	Iron	10500.00			P
7439-92-1	Lead	3.10		S	F
7439-95-4	Magnesium	2470.00			P
7439-96-5	Manganese	176.00			P
7439-97-6	Mercury	.05	U		CV
7440-02-0	Nickel	18.50			P
7440-09-7	Potassium	702.00	B		P
7782-49-2	Selenium	.44	U	N	F
7440-22-4	Silver	2.30			P
7440-23-5	Sodium	466.00	B		P
7440-28-0	Thallium	.44	U	W	F
7440-62-2	Vanadium	22.70			P
7440-66-6	Zinc	23.40			P
	Cyanide	5.19			C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B018MO

Lab Name: ROY F. WESTON, INC - L372 Contract: 6168-02-01

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP659

Matrix (soil/water): SOIL Lab Sample ID: 911265902

Level (low/med): LOW Date Received: 12/07/91

% Solids: 97.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4610.00			P
7440-36-0	Antimony	4.12	U		P
7440-38-2	Arsenic	.58	B		F
7440-39-3	Barium	86.60			P
7440-41-7	Beryllium	.29	B		P
7440-43-9	Cadmium	1.20			P
7440-70-2	Calcium	17100.00		*	P
7440-47-3	Chromium	36.50		*N	P
7440-48-4	Cobalt	7.10	B		P
7440-50-8	Copper	10.80			P
7439-89-6	Iron	10500.00			P
7439-92-1	Lead	2.90		S	F
7439-95-4	Magnesium	2490.00			P
7439-96-5	Manganese	178.00			P
7439-97-6	Mercury	.05	U		CV
7440-02-0	Nickel	18.70		N	P
7440-09-7	Potassium	697.00	B		P
7782-49-2	Selenium	.41	U	N	F
7440-22-4	Silver	2.06	U		P
7440-23-5	Sodium	370.00	B		P
7440-28-0	Thallium	.41	U	W	F
7440-62-2	Vanadium	23.70			P
7440-66-6	Zinc	22.40			P
	Cyanide	1.03	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

9112L659-001-258 0000022

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B018L8

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL Lab Sample ID: 9112L659-001

Sample wt/vol: 5.10 (g/mL) G ab File ID: 0121012

Level: (low/med) LOW te Received: 12/07/91

% Moisture: not dec. ___ e Analyzed: 12/10/91

Column: (pack/cap) PACK tion Factor: 0.980

X00523
HR-3
GW Drilling

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
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	2	J
67-64-1	Acetone	~~120~~ 114	~~B~~ H
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
10061-01-5	cis-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
10061-02-6	Trans-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	1	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

6/22/93

CLIENT SAMPLE NO.

B018L8

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL

Lab Sample ID: 9112L659-001

Sample wt/vol: 5.10 (g/mL) G

Lab File ID: 0121012

Level: (low/med) LOW

Date Received: 12/07/91

% Moisture: not dec. 9

Date Analyzed: 12/10/91

Column: (pack/cap) PACK

Dilution Factor: 0.980

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

10/19/92

9613441 1702

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

BO18MO

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL

Lab Sample ID: 9112L659-002

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: Y121109

Level: (low/med) LOW

Date Received: 12/07/91

% Moisture: not dec. 3

Date Analyzed: 12/11/91

Column: (pack/cap) PACK

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
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	~~8~~	~~B~~ 10 U
67-64-1	Acetone	~~32~~ 33	~~B~~ U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

RB 6/22/93

FORM 1 V-1

12/88 Rev.

10/[illegible]/92 [illegible]

9615441.1703 0000034

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B018M0

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL

Lab Sample ID: 9112L659-002

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: Y121109

Level: (low/med) LOW

Date Received: 12/07/91

% Moisture: not dec. 3

Date Analyzed: 12/11/91

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

10-11-92

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B018L8

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL

Lab Sample ID: 9112L659-001

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: S010306

Level: (low/med) LOW

Date Received: 12/07/91

% Moisture: not dec. 3 dec.

Date Extracted: 12/13/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/03/92

GPC Cleanup: (Y/N) N pH: 7.4

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
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	1700	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	1700	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 SHEET

CLIENT SAMPLE NO.

B018L8

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL Lab Sample ID: 9112L659-001

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S010306

Level: (low/med) LOW Date Received: 12/07/91

% Moisture: not dec. 3 dec. Date Extracted: 12/13/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/03/92

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1700	U J
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	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	340	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	340	U
120-12-7	Anthracene	340	U
84-74-2	Di-n-Butylphthalate	72	J
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	340	U
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	680	U
56-55-3	Benzo(a)anthracene	340	U
218-01-9	Chrysene	340	U
117-81-7	bis(2-Ethylhexyl)phthalate	340	U
117-84-0	Di-n-Octyl phthalate	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	Dibenzo(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U

(1) - Cannot be separated from Diphenylamine

CLIENT SAMPLE NO.

BO18L8

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL

Lab Sample ID: 9112L659-001

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: S010306

Level: (low/med) LOW

Date Received: 12/07/91

% Moisture: not dec. 3 dec.

Date Extracted: 12/13/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/03/92

GPC Cleanup: (Y/N) N pH: 7.4

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

9613441.1707 0000028

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B018MO

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL

Lab Sample ID: 9112L659-002

Sample wt/vol: 31.5 (g/mL) G

Lab File ID: S010405

Level: (low/med) LOW

Date Received: 12/07/91

% Moisture: not dec. 3 dec.

Date Extracted: 12/13/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/04/92

GPC Cleanup: (Y/N) N pH: 7.8

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
108-95-2	Phenol	330	U J
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	1600	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	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U

9613441.1708 0000029

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B018MO

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL Lab Sample ID: 9112L659-002

Sample wt/vol: 31.5 (g/mL) G Lab File ID: S010405

Level: (low/med) LOW Date Received: 12/07/91

% Moisture: not dec. 3 dec. Date Extracted: 12/13/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/04/92

GPC Cleanup: (Y/N) N pH: 7.8 Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	1600	U J
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	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	1600	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	650	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	330	U
117-84-0	Di-n-Octyl phthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U

(1) - Cannot be separated from Diphenylamine

FORM 1 SV-2 12/88 Rev.

10-19-92

9613441.1709 0000030

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BO18MO

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL Lab Sample ID: 9112L659-002

Sample wt/vol: 31.5 (g/mL) G Lab File ID: S010405

Level: (low/med) LOW Date Received: 12/07/91

% Moisture: not dec. 3 dec. Date Extracted: 12/13/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/04/92

GPC Cleanup: (Y/N) N pH: 7.8 Dilution Factor: 1.00

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.85	200	JA

10/19/92 JC

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B018L8

Lab Name: Rov F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL

Lab Sample ID: 9112L659-001

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: 01079213.20

Level: (low/med) LOW

Date Received: 12/07/91

% Moisture: not dec. 9 dec.

Date Extracted: 12/12/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 01/08/92

GPC Cleanup: (Y/N) Y pH: 7.4

Dilution Factor: 1.00

KB 1/9/93

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

CAS NO.	COMPOUND		
319-84-6	Alpha-BHC	8.7	U
319-85-7	Beta-BHC	8.7	U
319-86-8	Delta-BHC	8.7	U
58-89-9	gamma-BHC (Lindane)	8.7	U
76-44-8	Heptachlor	8.7	U
309-00-2	Aldrin	8.7	U
1024-57-3	Heptachlor epoxide	8.7	U
959-98-8	Endosulfan I	8.7	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	87	U
53494-70-5	Endrin ketone	17	U
5103-71-9	alpha-Chlordane	87	U
5103-74-2	gamma-Chlordane	87	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	87	U
11104-28-2	Aroclor-1221	87	U
11141-16-5	Aroclor-1232	87	U
53469-21-9	Aroclor-1242	87	U
12672-29-6	Aroclor-1248	87	U
11097-69-1	Aroclor-1254	170	U
11096-82-5	Aroclor-1260	170	U

JMC 1/13/93

9613441.1711 0000018

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B018MO

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL Lab Sample ID: 9112L659-002

Sample wt/vol: 30.9 (g/mL) G Lab File ID: 01079213.21

Level: (low/med) LOW Date Received: 12/07/91

% Moisture: not dec. 3 dec. Date Extracted: 12/12/91

RB 1/4/93

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/08/92

GPC Cleanup: (Y/N) N pH: 7.8 Dilution Factor: 0.500

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

CAS NO.	COMPOUND		
319-84-6	Alpha-BHC	4.0	U
319-85-7	Beta-BHC	4.0	U
319-86-8	Delta-BHC	4.0	U
58-89-9	gamma-BHC (Lindane)	4.0	U
76-44-8	Heptachlor	4.0	U
309-00-2	Aldrin	4.0	U
1024-57-3	Heptachlor epoxide	4.0	U
959-98-8	Endosulfan I	4.0	U
60-57-1	Dieldrin	8.0	U
72-55-9	4,4'-DDE	8.0	U
72-20-8	Endrin	8.0	U
33213-65-9	Endosulfan II	8.0	U
72-54-8	4,4'-DDD	8.0	U
1031-07-8	Endosulfan sulfate	8.0	U
50-29-3	4,4'-DDT	8.0	U
72-43-5	Methoxychlor	40	U
53494-70-5	Endrin ketone	8.0	U
5103-71-9	alpha-Chlordane	40	U
5103-74-2	gamma-Chlordane	40	U
8001-35-2	Toxaphene	80	U
12674-11-2	Aroclor-1016	40	U
11104-28-2	Aroclor-1221	40	U
11141-16-5	Aroclor-1232	40	U
53469-21-9	Aroclor-1242	40	U
12672-29-6	Aroclor-1248	40	U
11097-69-1	Aroclor-1254	80	U
11096-82-5	Aroclor-1260	80	U

JLB 1/15/92

9613441.1712 000023

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B018MO

Lab Name: ROY F. WESTON, INC - L372 Contract: 6168-02-01

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP659

Matrix (soil/water): SOIL Lab Sample ID: 911265902

Level (low/med): LOW Date Received: 12/07/91

% Solids: 97.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4610.00			P
7440-36-0	Antimony	4.12	U		P
7440-38-2	Arsenic	.58	B		F
7440-39-3	Barium	86.60			P
7440-41-7	Beryllium	.29	B		P
7440-43-9	Cadmium	1.20			P
7440-70-2	Calcium	17100.00		~~*~~ J	P
7440-47-3	Chromium	36.50		~~*N~~ J	P
7440-48-4	Cobalt	7.10	B		P
7440-50-8	Copper	10.80			P
7439-89-6	Iron	10500.00			P
7439-92-1	Lead	2.90		S	F
7439-95-4	Magnesium	2490.00			P
7439-96-5	Manganese	178.00			P
7439-97-6	Mercury	.05	U		CV
7440-02-0	Nickel	18.70		~~N~~ J	P
7440-09-7	Potassium	697.00	B		P
7782-49-2	Selenium	.41	U	~~N~~ J	F
7440-22-4	Silver	2.06	U		P
7440-23-5	Sodium	370.00	B		P
7440-28-0	Thallium	.41	U	~~N~~ J	F
7440-62-2	Vanadium	23.70			P
7440-66-6	Zinc	22.40			P
	Cyanide	1.03	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

10/19/92 LM

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B018L8

Lab Name: ROY F. WESTON, INC - L372 Contract: 6168-02-01

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP659

Matrix (soil/water): SOIL Lab Sample ID: 911265901

Level (low/med): LOW Date Received: 12/07/91

% Solids: 91.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4760.00			P
7440-36-0	Antimony	4.38	U	~~N~~ J	P
7440-38-2	Arsenic	.77	B	~~N~~ J	F
7440-39-3	Barium	88.30			P
7440-41-7	Beryllium	.37	B		P
7440-43-9	Cadmium	1.30			P
7440-70-2	Calcium	8850.00			P
7440-47-3	Chromium	34.40		~~N*~~ J	P
7440-48-4	Cobalt	6.70	B		P
7440-50-8	Copper	13.20			P
7439-89-6	Iron	10500.00			P
7439-92-1	Lead	3.10		S	F
7439-95-4	Magnesium	2470.00			P
7439-96-5	Manganese	176.00			P
7439-97-6	Mercury	.05	U		CV
7440-02-0	Nickel	18.50			P
7440-09-7	Potassium	702.00	B		P
7782-49-2	Selenium	.44	U	~~N~~ J	F
7440-22-4	Silver	2.30			P
7440-23-5	Sodium	466.00	~~B~~	N	P
7440-28-0	Thallium	.44	U	~~W~~ J	F
7440-62-2	Vanadium	22.70			P
7440-66-6	Zinc	23.40			P
	Cyanide	5.19			C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

10/14/92 LM

DATA QUALIFICATION SUMMARY

UNIT: 100-HR-3

DOCUMENT CONTROL NUMBER: WHC-SD-EN-TI-083

ANALYSES: VOC, BNA, Pest/PCB, Inorganics

RFW NO.: 9112L659-WES-258

SDG NO.: B018L8

QUALIFICATION SUMMARY:

VOLATILES

SAMPLE NUMBERS: B018L8, B018M0

BLANKS

Due to the presence of laboratory blank contamination, the following samples were flagged "U" for acetone and methylene chloride:

- Sample number B018M0 in SDG No. B018L8

SEMIVOLATILES

SAMPLE NUMBERS: B018L8, B018M0

HOLDING TIMES

Holding time requirements fell outside the established control limits, and the following samples have been qualified as estimates and were flagged "J" for all results:

- Sample numbers B018L8 and B018M0 in SDG No. B018L8

PESTICIDES/PCBS

SAMPLE NUMBERS: B018L8, B018M0

No data were qualified.

INORGANICS

SAMPLE NUMBERS: B018L8, B018M0

BLANKS

Due to the presence of laboratory blank contamination, the following samples were flagged "U" for sodium:

- Sample number B018L8 in SDG No. B018L8

MATRIX SPIKE RECOVERY

The matrix spike recovery results fell outside the QC limits, and the following samples were qualified as an estimate and flagged "J" for antimony and arsenic:

- Sample number B018L8 in SDG No. B018L8

The matrix spike recovery results fell outside the QC limits, and the following samples were qualified as an estimate and flagged "J" for nickel:

- Sample number B018M0 in SDG No. B018L8

The matrix spike recovery results fell outside the QC limits, and the following samples were qualified as an estimate and flagged "J" for chromium and selenium:

- Sample numbers B018L8 and B018M0 in SDG No. B018L8

LABORATORY DUPLICATE SAMPLES

The laboratory duplicate results fell outside the QC limits, and the following samples were qualified as estimates and flagged "J" for chromium:

- Sample numbers B018L8 and B018M0 in SDG No. B018L8

The laboratory duplicate results fell outside the QC limits, and the following samples were qualified as estimates and flagged "J" for calcium:

- Sample number B018M0 in SDG No. B018L8

ANALYTICAL SPIKE RECOVERY

The analytical spike recovery results fell outside the QC limits, and the following samples were qualified as an estimate and flagged "J" for thallium:

- Sample numbers B018L8 and B018M0 in SDG No. B018L8