6

9103L121-WGS-020

Custody Transfer Record/Lab Work Request

WESTON

WESTON Analytics Use Only
91034121

Client: B.E. Innis/Westinghouse Hanford
Work Order: EN5PC 6168-02-01
Date Rec'd.: 3/29/91 Date Due: 5/3/91 ~~As specified~~ per SOW
RFW Contact: Peg Beaty
Client Contact/Phone: B.E. Innis (509) 376-769

Refrigerator#	1	5					4		
#/Type Container	2-40ml amber	amber glass					amber glass		
Volume (total)	80ml	1000ml					500ml		
Preservative	ice	ice							
ANALYSES REQUESTED	VOA, Hexane (8240)	Semi-VOA TBP (8270)	Kerosene PCB (8080)	TCLP Metals (6010)	Anions (300.0) Fluoride (10ib)	Alpha/Beta (PRO-012-2)	Gamma (PRO-012-3)	Total Uranium (PRO-012-8)	Isotopic Uran. (PRO-012-3)
	0634*	0635*	0636 GCSC	0637	0638 IPSW		ESUB		

WA Use Only Lab ID	Client ID/Description	Matrix	Date Collected	VOA, Hexane (8240)	Semi-VOA TBP (8270)	Kerosene PCB (8080)	TCLP Metals (6010)	Anions (300.0) Fluoride (10ib)	Alpha/Beta (PRO-012-2)	Gamma (PRO-012-3)	Total Uranium (PRO-012-8)	Isotopic Uran. (PRO-012-3)
001	1) B00J00 (organic liquid)	DL	3-28-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	2) B00J01 (organic liquid)	DL	3-28-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
3	3) B00J03 (organic liquid) RAD	DL	3-28-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
4	4) B00J04 (organic liquid)	DL	3-28-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
5	~~5) B00J06 (organic liquid)~~ 3-28-91	W	3-28-91	✓	✓	✓	3-28-91					

Revision #1 4/3/91
sample #3 is RAD

DL = Organic Liquid

QC Rel = CIP

* 625H = BNA + tributyl Phosphate
GCSC = VOA 8015 to be done in Lab 4375
→ Persure

Matrix: S - Soil, SE - Sediment, SO - Solid, W - Water, O - Oil, A - Air, Wi - Wipe, DS - Drum Solids, DL - Drum Liquids, F - Fish, L - EP/TCLP Leachate, X - Other

Special Instructions: Please call to confirm receipt and condition of sample shipment
metals = ICP
Anions = ICCL, ICFL, ICSO4, ICPO4, ICNO3, ICNO2

Item/Reason	Relinquished by	Received by	Date	Time	Item/Reason	Relinquished by	Received by	Date	Time
	FedExp	Pbergu	3/29/91	4:30 pm					
	SEE WHC C OF C								
1-4 625H			4/1/91		001			4/1/91	4:30
5 VOA			4/1/91	9:20	001, 002, 004 %				

WESTON Analytics Use Only

Samples Were:
1 Shipped or Hand-Delivered
NOTES:

2 Ambient or Chilled
NOTES:

3 Received Broken/Leaking (Improperly Sealed) Y N
NOTES:

4 Properly Preserved Y N
NOTES:

5 Received Within Holding Time Y N
NOTES:

COC Tape Was:
1 Present on Outer Package Y N
2 Unbroken on Outer Package Y N
3 Present on Sample Y N
4 Unbroken on Sample Y N
NOTES:

COC Record Was:
1 Present Upon Receipt of Samples Y N

Discrepancies Between Sample Labels and COC Record? Y N
NOTES:

RFW 21-21-001/A-12/88

7-115

Roy F. Weston, Inc. - Richville Laboratory

Volatiles by GC/MS, HSL List

RFW Batch Number: 9103L121 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 05/03/91 14:51 Page: 1a

	Cust ID:	B00J00	B00J01	B00J03	B00J04	B00J04	B00J04
Sample Information	RFW#:	001	002	003	004	004 MS	004 MSD
	Matrix:	DRUM	DRUM	DRUM	DRUM	DRUM	DRUM
	D.F.:	6250	62500	1250	62500	62500	62500
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
	Level:	MED	MED	MED	MED	MED	MED
Surrogate Recovery	Toluene-d8	D %	D %	D %	D %	D %	D %
	Bromofluorobenzene	D %	D %	D %	D %	D %	D %
	1,2-Dichloroethane-d4	D %	D %	D %	D %	D %	D %
		fl	fl	fl	fl	fl	fl
Chloromethane		6200000 U	0.62E+08 U	1200000 U	0.62E+08 U	0.62E+08 U	0.62E+08 U
Bromomethane		6200000 U	0.62E+08 U	1200000 U	0.62E+08 U	0.62E+08 U	0.62E+08 U
Vinyl Chloride		6200000 U	0.62E+08 U	1200000 U	0.62E+08 U	0.62E+08 U	0.62E+08 U
Chloroethane		6200000 U	0.62E+08 U	1200000 U	0.62E+08 U	0.62E+08 U	0.62E+08 U
Methylene Chloride		8800000 B	0.17E+09 B	3500000 B	0.15E+09 B	0.60E+08 B	0.91E+08 B
Acetone		0.11E+08 B	0.19E+09 B	4000000 B	0.17E+09 B	0.11E+09 B	0.12E+09 B
Carbon Disulfide		3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U
1,1-Dichloroethene		3100000 U	0.31E+08 U	620000 U	0.31E+08 U	83 %	80 %
1,1-Dichloroethane		3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U
1,2-Dichloroethene (total)		3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U
Chloroform		3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U
1,2-Dichloroethane		3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U
2-Butanone		6200000 U	0.62E+08 U	1200000 U	0.62E+08 U	0.62E+08 U	0.62E+08 U
1,1,1-Trichloroethane		3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U
Carbon Tetrachloride		3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U
Vinyl Acetate		6200000 U	0.62E+08 U	1200000 U	0.62E+08 U	0.62E+08 U	0.62E+08 U
Bromodichloromethane		3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U
1,2-Dichloropropane		3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U
cis-1,3-Dichloropropene		3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U
Trichloroethene		3100000 U	0.31E+08 U	620000 U	0.31E+08 U	96 %	93 %
Dibromochloromethane		3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U
1,1,2-Trichloroethane		3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U
Benzene		3100000 U	0.31E+08 U	620000 U	0.31E+08 U	99 %	99 %
Trans-1,3-Dichloropropene		3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U
Bromoform		3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U
4-Methyl-2-pentanone		3500000 J	0.93E+09	0.11E+08	0.11E+10	0.92E+09	0.95E+09
2-Hexanone		6200000 U	0.62E+08 U	1200000 U	0.62E+08 U	0.62E+08 U	0.62E+08 U
Tetrachloroethene		3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U
1,1,2,2-Tetrachloroethane		3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U

*= Outside of EPA CLP QC limits.

Cust ID:	B00J00	B00J01	B00J03	B00J04	B00J04	B00J04
RFW#:	001	002	003	004	004 MS	004 MSD
Level:	MED	MED	MED	MED	MED	MED
Toluene	2700000 J	0.31E+08 U	4200000	0.31E+08 U	99 %	102 %
Chlorobenzene	3100000 U	0.31E+08 U	620000 U	0.31E+08 U	93 %	96 %
Ethylbenzene	3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U
Styrene	3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U
Xylene (total)	3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U

*= Outside of EPA CLP QC limits.

000005

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

Report Date: 05/03/91 14:51

RFW Batch Number: 9103L121 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000

	Cust ID:	B00J06	VBLK	VBLK	VBLK	VBLK
Sample Information	RFW#:	005	91LVX051-MB1	91LVX050-MB1	91LVX052-MB1	91LVW052-MB1
	Matrix:	WATER	SOIL	SOIL	SOIL	WATER
	D.F.:	1.00	1.25	1.25	1.25	1.00
	Units:	ug/L	ug/Kg	ug/Kg	ug/Kg	ug/L
	Level:	LOW	MED	MED	MED	LOW
Surrogate Recovery	Toluene-d8	100 %	103 %	98 %	97 %	99 %
	Bromofluorobenzene	104 %	98 %	96 %	99 %	98 %
	1,2-Dichloroethane-d4	114 %	99 %	97 %	101. %	101 %
Chloromethane		10 U	1200 U	1200 U	1200 U	10 U
Bromomethane		10 U	1200 U	1200 U	1200 U	10 U
Vinyl Chloride		10 U	1200 U	1200 U	1200 U	10 U
Chloroethane		10 U	1200 U	1200 U	1200 U	10 U
Methylene Chloride		43 B	2300	1600	2000	10
Acetone		8 JB	3100	2900	2500	16
Carbon Disulfide		5 U	620 U	620 U	620 U	5 U
1,1-Dichloroethene		5 U	620 U	620 U	620 U	5 U
1,1-Dichloroethane		5 U	620 U	620 U	620 U	5 U
1,2-Dichloroethene (total)		5 U	620 U	620 U	620 U	5 U
Chloroform		5 U	620 U	620 U	620 U	5 U
1,2-Dichloroethane		5 U	620 U	620 U	620 U	5 U
2-Butanone		10 U	1200 U	1200 U	1200 U	10 U
1,1,1-Trichloroethane		5 U	620 U	620 U	620 U	5 U
Carbon Tetrachloride		5 U	620 U	620 U	620 U	5 U
Vinyl Acetate		10 U	1200 U	1200 U	1200 U	10 U
Bromodichloromethane		5 U	620 U	620 U	620 U	5 U
1,2-Dichloropropane		5 U	620 U	620 U	620 U	5 U
cis-1,3-Dichloropropene		5 U	620 U	620 U	620 U	5 U
Trichloroethene		5 U	620 U	620 U	620 U	5 U
Dibromochloromethane		5 U	620 U	620 U	620 U	5 U
1,1,2-Trichloroethane		5 U	620 U	620 U	620 U	5 U
Benzene		5 U	620 U	620 U	620 U	5 U
Trans-1,3-Dichloropropene		5 U	620 U	620 U	620 U	5 U
Bromoform		5 U	620 U	620 U	620 U	5 U
4-Methyl-2-pentanone		7 J	1200 U	1200 U	1200 U	10 U
2-Hexanone		10 U	1200 U	1200 U	1200 U	10 U
Tetrachloroethene		5 U	620 U	620 U	620 U	5 U
1,1,2,2-Tetrachloroethane		5 U	620 U	620 U	620 U	5 U

*= Outside of EPA CLP QC limits.

5/2/91 JB

Cust ID:	B00J06	VBLK	VBLK	VBLK	VBLK
RFW#:	005	91LVX051-MB1	91LVX050-MB1	91LVX052-MB1	91LVW052-MB1
Level:	LOW	MED	MED	MED	LOW
Toluene	5 U	620 U	620 U	620 U	5 U
Chlorobenzene	5 U	620 U	620 U	620 U	5 U
Ethylbenzene	5 U	620 U	620 U	620 U	5 U
Styrene	5 U	620 U	620 U	620 U	5 U
Xylene (total)	5 U	620 U	620 U	620 U	5 U

*= Outside of EPA CLP QC limits.

000007

8A

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 03-29-91
RFW #: 9103L121, GC/MS VOLATILE
W.O. #: 6168-02-01

NARRATIVE

The set of samples consisted of one (1) water sample and four (4) drum samples collected on 03-28-91.

The samples were analyzed according to criteria set forth in CLP SOW 02/88 (Rev. 05/89) for TCL Volatile target compounds on 04-03,04,05-91.

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

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

2. The following samples required medium level analyses and dilution because they contained high levels of both target and non-target compounds:

Sample ID	Dilution Factor
B00J00	5,000
B00J01	50,000
B00J03	1,000
B00J04, MS, MSD	50,000

3. All obtainable surrogate recoveries were within EPA QC limits. Several surrogate recoveries could not be obtained due to the dilution required for analysis.

4. The laboratory blanks contained the common contaminants acetone and methylene chloride at levels less than 4x the CRQL.

5. Internal standard area and retention time criteria were met for samples and blanks.

6. All matrix spike recoveries were within EPA QC limits.

Jack R. Tuschall, Ph.D. 5.6.91
Date
Laboratory Manager
Lionville Analytical Laboratory

WESTON SM

GLOSSARY OF VOA DATA

DATA QUALIFIERS

U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.

J = Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero; for example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I = Interference.

X = Additional qualifiers used as required are explained in the case narrative.

NQ = Result qualitatively confirmed but not able to quantify.

ABBREVIATIONS

BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD = Indicates blank spike duplicate.

MS = Indicates matrix spike.

MSD = Indicates matrix spike duplicate.

DL = Indicates that surrogate recoveries were not obtained because the extract had to be diluted for analysis.

NA = Not applicable.

DF = Dilution factor.

NR = Not required.

1A
VOLATILE ORGANICS ANALYSIS SHEET 0000025

CLIENT SAMPLE NO.

BOOJOO

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-001

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4408

Level: (low/med) MED

Date Received: 03/29/91

% Moisture: not dec. 0

Date Analyzed: 04/04/91

Column: (pack/cap) CAP

Dilution Factor: 6250

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	6200000	U
74-83-9	Bromomethane	6200000	U
75-01-4	Vinyl Chloride	6200000	U
75-00-3	Chloroethane	6200000	U
75-09-2	Methylene Chloride	8800000	B
67-64-1	Acetone	0.11E+08	B
75-15-0	Carbon Disulfide	3100000	U
75-35-4	1,1-Dichloroethene	3100000	U
75-34-3	1,1-Dichloroethane	3100000	U
540-59-0	1,2-Dichloroethene (total)	3100000	U
67-66-3	Chloroform	3100000	U
107-06-2	1,2-Dichloroethane	3100000	U
78-93-3	2-Butanone	6200000	U
71-55-6	1,1,1-Trichloroethane	3100000	U
56-23-5	Carbon Tetrachloride	3100000	U
108-05-4	Vinyl Acetate	6200000	U
75-27-4	Bromodichloromethane	3100000	U
78-87-5	1,2-Dichloropropane	3100000	U
10061-01-5	cis-1,3-Dichloropropene	3100000	U
79-01-6	Trichloroethene	3100000	U
124-48-1	Dibromochloromethane	3100000	U
79-00-5	1,1,2-Trichloroethane	3100000	U
71-43-2	Benzene	3100000	U
10061-02-6	Trans-1,3-Dichloropropene	3100000	U
75-25-2	Bromoform	3100000	U
108-10-1	4-Methyl-2-pentanone	3500000	J
591-78-6	2-Hexanone	6200000	U
127-18-4	Tetrachloroethene	3100000	U
79-34-5	1,1,2,2-Tetrachloroethane	3100000	U
108-88-3	Toluene	2700000	J
108-90-7	Chlorobenzene	3100000	U
100-41-4	Ethylbenzene	3100000	U
100-42-5	Styrene	3100000	U
1330-20-7	Xylene (total)	3100000	U

1E

VOLATILE ORGANICS ANALYSIS SHEET 0000026
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

BOOJOO

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-001

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4408

Level: (low/med) MED

Date Received: 03/29/91

% Moisture: not dec. 0

Date Analyzed: 04/04/91

Column: (pack/cap) CAP

Dilution Factor: 6250

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	HYDROCARBON	10.98	400000000	J

1A

VOLATILE ORGANICS ANALYSIS SHEET 000036

CLIENT SAMPLE NO.

B00J01

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-002

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4308

Level: (low/med) MED

Date Received: 03/29/91

% Moisture: not dec. 0

Date Analyzed: 04/03/91

Column: (pack/cap) PACK

Dilution Factor: 62500

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	0.62E+08	U
74-83-9	Bromomethane	0.62E+08	U
75-01-4	Vinyl Chloride	0.62E+08	U
75-00-3	Chloroethane	0.62E+08	U
75-09-2	Methylene Chloride	0.17E+09	B
67-64-1	Acetone	0.19E+09	B
75-15-0	Carbon Disulfide	0.31E+08	U
75-35-4	1,1-Dichloroethene	0.31E+08	U
75-34-3	1,1-Dichloroethane	0.31E+08	U
540-59-0	1,2-Dichloroethene (total)	0.31E+08	U
67-66-3	Chloroform	0.31E+08	U
107-06-2	1,2-Dichloroethane	0.31E+08	U
78-93-3	2-Butanone	0.62E+08	U
71-55-6	1,1,1-Trichloroethane	0.31E+08	U
56-23-5	Carbon Tetrachloride	0.31E+08	U
108-05-4	Vinyl Acetate	0.62E+08	U
75-27-4	Bromodichloromethane	0.31E+08	U
78-87-5	1,2-Dichloropropane	0.31E+08	U
10061-01-5	cis-1,3-Dichloropropene	0.31E+08	U
79-01-6	Trichloroethene	0.31E+08	U
124-48-1	Dibromochloromethane	0.31E+08	U
79-00-5	1,1,2-Trichloroethane	0.31E+08	U
71-43-2	Benzene	0.31E+08	U
10061-02-6	Trans-1,3-Dichloropropene	0.31E+08	U
75-25-2	Bromoform	0.31E+08	U
108-10-1	4-Methyl-2-pentanone	0.93E+09	
591-78-6	2-Hexanone	0.62E+08	U
127-18-4	Tetrachloroethene	0.31E+08	U
79-34-5	1,1,2,2-Tetrachloroethane	0.31E+08	U
108-88-3	Toluene	0.31E+08	U
108-90-7	Chlorobenzene	0.31E+08	U
100-41-4	Ethylbenzene	0.31E+08	U
100-42-5	Styrene	0.31E+08	U
1330-20-7	Xylene (total)	0.31E+08	U

1E

VOLATILE ORGANICS ANALYSIS SHEET 0000037

TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B00J01

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-002

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4308

Level: (low/med) MED

Date Received: 03/29/91

% Moisture: not dec. 0

Date Analyzed: 04/03/91

Column: (pack/cap) PACK

Dilution Factor: 62500

Number TICs found: 0

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

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

1A
VOLATILE ORGANICS ANALYSIS SHEET 0000044

CLIENT SAMPLE NO.

B00J03

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-003

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4509

Level: (low/med) MED

Date Received: 03/29/91

% Moisture: not dec. 0

Date Analyzed: 04/05/91

Column: (pack/cap) CAP

Dilution Factor: 1250

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	1200000	U
74-83-9	Bromomethane	1200000	U
75-01-4	Vinyl Chloride	1200000	U
75-00-3	Chloroethane	1200000	U
75-09-2	Methylene Chloride	3500000	B
67-64-1	Acetone	4000000	B
75-15-0	Carbon Disulfide	620000	U
75-35-4	1,1-Dichloroethene	620000	U
75-34-3	1,1-Dichloroethane	620000	U
540-59-0	1,2-Dichloroethene (total)	620000	U
67-66-3	Chloroform	620000	U
107-06-2	1,2-Dichloroethane	620000	U
78-93-3	2-Butanone	1200000	U
71-55-6	1,1,1-Trichloroethane	620000	U
56-23-5	Carbon Tetrachloride	620000	U
108-05-4	Vinyl Acetate	1200000	U
75-27-4	Bromodichloromethane	620000	U
78-87-5	1,2-Dichloropropane	620000	U
10061-01-5	cis-1,3-Dichloropropene	620000	U
79-01-6	Trichloroethene	620000	U
124-48-1	Dibromochloromethane	620000	U
79-00-5	1,1,2-Trichloroethane	620000	U
71-43-2	Benzene	620000	U
10061-02-6	Trans-1,3-Dichloropropene	620000	U
75-25-2	Bromoform	620000	U
108-10-1	4-Methyl-2-pentanone	0.11E+08	
591-78-6	2-Hexanone	1200000	U
127-18-4	Tetrachloroethene	620000	U
79-34-5	1,1,2,2-Tetrachloroethane	620000	U
108-88-3	Toluene	4200000	
108-90-7	Chlorobenzene	620000	U
100-41-4	Ethylbenzene	620000	U
100-42-5	Styrene	620000	U
1330-20-7	Xylene (total)	620000	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

0000045

CLIENT SAMPLE NO.

B00J03

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-003

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4509

Level: (low/med) MED

Date Received: 03/29/91

% Moisture: not dec. 0

Date Analyzed: 04/05/91

Column: (pack/cap) CAP

Dilution Factor: 1250

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CYCLOALKANE	8.22	20000000	J
2.	UNKNOWN	11.07	300000000	J
3.	C8 HYDROCARBON	13.44	700000	J
4.	CYCLOALKANE	15.699	2000000	J

1A

VOLATILE ORGANICS ANALYSIS SHEET 0000058

CLIENT SAMPLE NO.

B00J04

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-004

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4309

Level: (low/med) MED

Date Received: 03/29/91

% Moisture: not dec. 0

Date Analyzed: 04/03/91

Column: (pack/cap) PACK

Dilution Factor: 62500

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	0.62E+08	U
74-83-9	Bromomethane	0.62E+08	U
75-01-4	Vinyl Chloride	0.62E+08	U
75-00-3	Chloroethane	0.62E+08	U
75-09-2	Methylene Chloride	0.15E+09	B
67-64-1	Acetone	0.17E+09	B
75-15-0	Carbon Disulfide	0.31E+08	U
75-35-4	1,1-Dichloroethene	0.31E+08	U
75-34-3	1,1-Dichloroethane	0.31E+08	U
540-59-0	1,2-Dichloroethene (total)	0.31E+08	U
67-66-3	Chloroform	0.31E+08	U
107-06-2	1,2-Dichloroethane	0.31E+08	U
78-93-3	2-Butanone	0.62E+08	U
71-55-6	1,1,1-Trichloroethane	0.31E+08	U
56-23-5	Carbon Tetrachloride	0.31E+08	U
108-05-4	Vinyl Acetate	0.62E+08	U
75-27-4	Bromodichloromethane	0.31E+08	U
78-87-5	1,2-Dichloropropane	0.31E+08	U
10061-01-5	cis-1,3-Dichloropropene	0.31E+08	U
79-01-6	Trichloroethene	0.31E+08	U
124-48-1	Dibromochloromethane	0.31E+08	U
79-00-5	1,1,2-Trichloroethane	0.31E+08	U
71-43-2	Benzene	0.31E+08	U
10061-02-6	Trans-1,3-Dichloropropene	0.31E+08	U
75-25-2	Bromoform	0.31E+08	U
108-10-1	4-Methyl-2-pentanone	0.11E+10	
591-78-6	2-Hexanone	0.62E+08	U
127-18-4	Tetrachloroethene	0.31E+08	U
79-34-5	1,1,2,2-Tetrachloroethane	0.31E+08	U
108-88-3	Toluene	0.31E+08	U
108-90-7	Chlorobenzene	0.31E+08	U
100-41-4	Ethylbenzene	0.31E+08	U
100-42-5	Styrene	0.31E+08	U
1330-20-7	Xylene (total)	0.31E+08	U

1E

VOLATILE ORGANICS ANALYSIS SHEET 0000059

TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B00J04

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-004

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4309

Level: (low/med) MED

Date Received: 03/29/91

% Moisture: not dec. 0

Date Analyzed: 04/03/91

Column: (pack/cap) PACK

Dilution Factor: 62500

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	10.96	30000000	J

1A

VOLATILE ORGANICS ANALYSIS SHEET 0000068

CLIENT SAMPLE NO.

B00J06

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L121-005

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

Lab File ID: W040517

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. _____

Date Analyzed: 04/05/91

Column: (pack/cap) PACK

Dilution Factor: 1.00

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

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	43	B
67-64-1	Acetone	8	JB
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	7	J
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

1E

VOLATILE ORGANICS ANALYSIS SHEET 0000069
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B00J06

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L121-005

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

Lab File ID: W040517

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. _____

Date Analyzed: 04/05/91

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

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

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

Roy F. Weston, Inc.- Lionville Laboratory

Hydrocarbon Fingerprinting

Client :Westinghouse
RFW# :91DGC334-MB1
Client ID :Method Blank
Matrix :Drum Liquid
Init. Cal.:04/18/91

Sample Collected: NA
Sample Received : NA
Sample Prepared :04/18/91
Sample Analyzed :04/18/91

Qualitative Identification

No hydrocarbons could be detected.

Degree of Matching = NA

Quantitative Report

Total Hydrocarbons < .001 G/ML

Sample quantified versus = MIBK

NA= Not applicable
NR= Not required

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

RFW Batch Number: 9103L121 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 05/13/91 17:28 Page: 1a

	Cust ID:	B00J00		B00J00		B00J01		B00J01		B00J03		B00J03	
Sample Information	RFW#:	001		001		002		002		003		003	
	Matrix:	DRUM		DRUM		DRUM		DRUM		DRUM		DRUM	
	D.F.:	100		100		100		100		100		100	
	Units:	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
				REP	REP			REP	REP			REP	REP
Surrogate Recovery	Nitrobenzene-d5	68	%	85	%	66	%	82	%	80	%	85	%
	2-Fluorobiphenyl	103	%	77	%	107	%	75	%	90	%	76	%
	p-Terphenyl-d14	111	%	86	%	110	%	77	%	136	%	86	%
	Phenol-d5	69	%	73	%	69	%	69	%	82	%	72	%
	2-Fluorophenol	79	%	69	%	81	%	64	%	93	%	66	%
	2,4,6-Tribromophenol	102	%	71	%	85	%	70	%	64	%	69	%
			fl		fl		fl		fl		fl		fl
Phenol		0.0	NR	910000	U	0.0	NR	1000000	U	0.0	NR	1000000	U
bis(2-Chloroethyl)ether		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
2-Chlorophenol		0.0	NR	910000	U	0.0	NR	1000000	U	0.0	NR	1000000	U
1,3-Dichlorobenzene		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
1,4-Dichlorobenzene		0.0	NR	910000	U	0.0	NR	1000000	U	0.0	NR	1000000	U
Benzyl alcohol		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
1,2-Dichlorobenzene		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
2-Methylphenol		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
bis(2-Chloroisopropyl)ether		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
4-Methylphenol		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
N-Nitroso-Di-n-propylamine		0.0	NR	910000	U	0.0	NR	1000000	U	0.0	NR	1000000	U
Hexachloroethane		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
Nitrobenzene		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
Isophorone		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
2-Nitrophenol		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
2,4-Dimethylphenol		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
Benzoic acid		6200000	U	4500000	U	6200000	U	5000000	U	6200000	U	5000000	U
bis(2-Chloroethoxy)methane		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
2,4-Dichlorophenol		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
1,2,4-Trichlorobenzene		0.0	NR	910000	U	0.0	NR	1000000	U	0.0	NR	1000000	U
Naphthalene		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
4-Chloroaniline		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
Hexachlorobutadiene		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
4-Chloro-3-methylphenol		0.0	NR	910000	U	0.0	NR	1000000	U	0.0	NR	1000000	U
2-Methylnaphthalene		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
Hexachlorocyclopentadiene		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U

*= Outside of EPA CLP QC limits.

000004

Cust ID:	B00J00	B00J00	B00J01	B00J01	B00J03	B00J03
RFW#:	001	001 REPREP	002	002 REPREP	003	003 REPREP
2,4,6-Trichlorophenol	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
2,4,5-Trichlorophenol	6200000 U	4500000 U	6200000 U	5000000 U	6200000 U	5000000 U
2-Chloronaphthalene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
2-Nitroaniline	6200000 U	4500000 U	6200000 U	5000000 U	6200000 U	5000000 U
Dimethylphthalate	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Acenaphthylene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
2,6-Dinitrotoluene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
3-Nitroaniline	6200000 U	4500000 U	6200000 U	5000000 U	6200000 U	5000000 U
Acenaphthene	0.0 NR	910000 U	0.0 NR	1000000 U	0.0 NR	1000000 U
2,4-Dinitrophenol	6200000 U	4500000 U	6200000 U	5000000 U	6200000 U	5000000 U
4-Nitrophenol	0.0 NR	4500000 U	6200000 U	5000000 U	6200000 U	5000000 U
Dibenzofuran	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
2,4-Dinitrotoluene	0.0 NR	910000 U	0.0 NR	1000000 U	0.0 NR	1000000 U
Diethylphthalate	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
4-Chlorophenyl-phenylether	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Fluorene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
4-Nitroaniline	6200000 U	4500000 U	6200000 U	5000000 U	6200000 U	5000000 U
4,6-Dinitro-2-methylphenol	6200000 U	4500000 U	6200000 U	5000000 U	6200000 U	5000000 U
N-Nitrosodiphenylamine (1)	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
4-Bromophenyl-phenylether	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Hexachlorobenzene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Pentachlorophenol	0.0 NR	4500000 U	0.0 NR	5000000 U	0.0 NR	5000000 U
Phenanthrene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Anthracene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Di-n-Butylphthalate	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Fluoranthene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Pyrene	0.0 NR	910000 U	0.0 NR	1000000 U	0.0 NR	1000000 U
Butylbenzylphthalate	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
3,3'-Dichlorobenzidine	2500000 U	1800000 U	2500000 U	2000000 U	2500000 U	2000000 U
Benzo(a)anthracene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Chrysene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
bis(2-Ethylhexyl)phthalate	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Di-n-Octyl phthalate	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Benzo(b)fluoranthene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Benzo(k)fluoranthene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Benzo(a)pyrene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Indeno(1,2,3-cd)pyrene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Dibenzo(a,h)anthracene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Benzo(g,h,i)perylene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Tributylphosphate	1200000 U	910000 U	1200000 U	170000 J	1200000 U	1000000 U

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

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

RFW Batch Number: 9103L121 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 05/13/91 17:28 Page: 2a

	Cust ID:	B00J04		B00J04		B00J04		B00J04		SBLK		SBLK BS	
Sample Information	RFW#:	004		004		004 MS		004 MSD		91LE0441-MB1		91LE0441-MB1	
	Matrix:	DRUM		DRUM		DRUM		DRUM		SOIL		SOIL	
	D.F.:	100		100		100		100		100		100	
	Units:	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
				REPREP									
Surrogate Recovery	Nitrobenzene-d5	76	%	85	%	80	%	80	%	73	%	70	%
	2-Fluorobiphenyl	93	%	76	%	92	%	93	%	102	%	104	%
	p-Terphenyl-d14	128	%	81	%	125	%	122	%	110	%	117	%
	Phenol-d5	79	%	71	%	87	%	86	%	64	%	55	%
	2-Fluorophenol	92	%	66	%	97	%	94	%	63	%	51	%
	2,4,6-Tribromophenol	62	%	63	%	63	%	65	%	133 *	%	119	%
			fl		fl		fl		fl		fl		fl
Phenol		0.0	NR	1000000	U	103 *	%	107 *	%	0.0	NR	80	%
bis(2-Chloroethyl)ether		1200000	U	1000000	U	1200000	U	1200000	U	1000000	U	1000000	U
2-Chlorophenol		0.0	NR	1000000	U	92	%	93	%	0.0	NR	88	%
1,3-Dichlorobenzene		1200000	U	1000000	U	1200000	U	1200000	U	1000000	U	1000000	U
1,4-Dichlorobenzene		0.0	NR	1000000	U	96	%	96	%	0.0	NR	96	%
Benzyl alcohol		1200000	U	1000000	U	1200000	U	1200000	U	1000000	U	1000000	U
1,2-Dichlorobenzene		1200000	U	1000000	U	1200000	U	1200000	U	1000000	U	1000000	U
2-Methylphenol		1200000	U	1000000	U	1200000	U	1200000	U	1000000	U	1000000	U
bis(2-Chloroisopropyl)ether		1200000	U	1000000	U	1200000	U	1200000	U	1000000	U	1000000	U
4-Methylphenol		1200000	U	1000000	U	1200000	U	1200000	U	1000000	U	1000000	U
N-Nitroso-Di-n-propylamine		0.0	NR	1000000	U	81	%	81	%	0.0	NR	62	%
Hexachloroethane		1200000	U	1000000	U	1200000	U	1200000	U	1000000	U	1000000	U
Nitrobenzene		1200000	U	1000000	U	1200000	U	1200000	U	1000000	U	1000000	U
Isophorone		1200000	U	1000000	U	1200000	U	1200000	U	1000000	U	1000000	U
2-Nitrophenol		1200000	U	1000000	U	1200000	U	1200000	U	1000000	U	1000000	U
2,4-Dimethylphenol		1200000	U	1000000	U	1200000	U	1200000	U	1000000	U	1000000	U
Benzoic acid		6200000	U	5000000	U	6200000	U	6200000	U	5000000	U	5000000	U
bis(2-Chloroethoxy)methane		1200000	U	1000000	U	1200000	U	1200000	U	1000000	U	1000000	U
2,4-Dichlorophenol		1200000	U	1000000	U	1200000	U	1200000	U	1000000	U	1000000	U
1,2,4-Trichlorobenzene		0.0	NR	1000000	U	97	%	97	%	0.0	NR	149 *	%
Naphthalene		1200000	U	1000000	U	1200000	U	1200000	U	1000000	U	1000000	U
4-Chloroaniline		1200000	U	1000000	U	1200000	U	1200000	U	1000000	U	1000000	U
Hexachlorobutadiene		1200000	U	1000000	U	1200000	U	1200000	U	1000000	U	1000000	U
4-Chloro-3-methylphenol		0.0	NR	1000000	U	87	%	90	%	0.0	NR	75	%
2-Methylnaphthalene		1200000	U	1000000	U	1200000	U	1200000	U	1000000	U	1000000	U
Hexachlorocyclopentadiene		1200000	U	1000000	U	1200000	U	1200000	U	1000000	U	1000000	U

*= Outside of EPA CLP QC limits.

000006

Cust ID:	B00J04	B00J04	B00J04	B00J04	SBLK	SBLK BS
RFW#:	004	004 REPREP	004 MS	004 MSD	91LE0441-MB1	91LE0441-MB1
2,4,6-Trichlorophenol	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
2,4,5-Trichlorophenol	6200000 U	5000000 U	6200000 U	6200000 U	5000000 U	5000000 U
2-Chloronaphthalene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
2-Nitroaniline	6200000 U	5000000 U	6200000 U	6200000 U	5000000 U	5000000 U
Dimethylphthalate	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Acenaphthylene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
2,6-Dinitrotoluene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
3-Nitroaniline	6200000 U	5000000 U	6200000 U	6200000 U	5000000 U	5000000 U
Acenaphthene	0.0 NR	1000000 U	103 %	106 %	0.0 NR	126 %
2,4-Dinitrophenol	6200000 U	5000000 U	6200000 U	6200000 U	5000000 U	5000000 U
4-Nitrophenol	0.0 NR	5000000 U	69 %	71 %	5000000 U	72 %
Dibenzofuran	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
2,4-Dinitrotoluene	0.0 NR	1000000 U	91 * %	95 * %	0.0 NR	94 * %
Diethylphthalate	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
4-Chlorophenyl-phenylether	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Fluorene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
4-Nitroaniline	6200000 U	5000000 U	6200000 U	6200000 U	5000000 U	5000000 U
4,6-Dinitro-2-methylphenol	6200000 U	5000000 U	6200000 U	6200000 U	5000000 U	5000000 U
N-Nitrosodiphenylamine (1)	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
4-Bromophenyl-phenylether	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Hexachlorobenzene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Pentachlorophenol	0.0 NR	5000000 U	102 %	102 %	0.0 NR	186 * %
Phenanthrene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Anthracene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Di-n-Butylphthalate	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Fluoranthene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Pyrene	0.0 NR	1000000 U	154 * %	151 * %	0.0 NR	129 %
Butylbenzylphthalate	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
3,3'-Dichlorobenzidine	2500000 U	2000000 U	2500000 U	2500000 U	2000000 U	2000000 U
Benzo(a)anthracene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Chrysene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
bis(2-Ethylhexyl)phthalate	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Di-n-Octyl phthalate	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Benzo(b)fluoranthene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Benzo(k)fluoranthene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Benzo(a)pyrene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Indeno(1,2,3-cd)pyrene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Dibenzo(a,h)anthracene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Benzo(g,h,i)perylene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Tributylphosphate	370000 J	300000 J	500000 J	570000 J	1000000 U	1000000 U

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

11A

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 03-29-91
RFW #: 9103L121, SEMIVOLATILE
W.O. #: 6168-02-01

NARRATIVE

The set of samples consisted of four (4) drum liquid samples collected on 03-28-91.

The samples were extracted on 04-03-91 and 05-06-91 using Waste dilution protocols and analyzed according to criteria set forth in CLP SOW 2/88 (rev 5/89) for TCL Semivolatile target compounds and Tributylphosphate on 05-02,03,10-91.

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

1. All samples were re-extracted outside of soil holding times (holding times have not been established for drum samples).

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

3. All samples were extracted using Waste Dilution Protocols which resulted in dilutions and high detection limits.

4. One (1) of ninety (90) surrogate recoveries was outside EPA QC limits; however, EPA CLP surrogate recovery criteria were met (i.e., no more than one outlier per fraction {acid and base neutral} and no recoveries less than 10%).

5. Spike added amounts greater than 7 digits cannot be accommodated on the EPA FORM 3.

6. Three (3) of thirty-three (33) blank spike recoveries were outside soil QC limits. Soil QC limits do not apply to these samples. High recoveries were due to the use of waste dilution extraction protocols.

7. Six (6) of twenty-two (22) matrix spike recoveries were outside soil QC limits. Soil QC limits do not apply to these samples. High recoveries were due to the use of waste dilution extraction protocols.

WESTON

samples and the associated method blank, 91LE0441-MB1 were inadvertently contaminated with matrix spike compounds. It is the analyst's opinion that this contamination was introduced with the addition of the surrogate solution. These compounds were flagged NR (Not Reported). These samples were re-extracted and re-analyzed. Re-analysis results are included.

9. Internal standard areas were outside QC limits for samples B00J03, B00J04, B00J00 RE, B00J01 RE. Samples B00J03 and B00J04 were re-analyzed on 05-10-91 and reported. The original analyses of samples B00J00 and B00J01 fulfilled the associated re-analysis requirements.

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

5-20-91
Date

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000028

CLIENT SAMPLE NO.

BOOJOO

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9103L121-001

Sample wt/vol: 0.800 (g/mL) G Lab File ID: M050215

Level: (low/med) LOW Date Received: 03/29/91

% Moisture: not dec. 0 dec. Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/02/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

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

CAS NO.	COMPOUND		
108-95-2	Phenol	0.0	NR
111-44-4	bis(2-Chloroethyl)ether	1200000	U
95-57-8	2-Chlorophenol	0.0	NR
541-73-1	1,3-Dichlorobenzene	1200000	U
106-46-7	1,4-Dichlorobenzene	0.0	NR
100-51-6	Benzyl alcohol	1200000	U
95-50-1	1,2-Dichlorobenzene	1200000	U
95-48-7	2-Methylphenol	1200000	U
108-60-1	bis(2-Chloroisopropyl)ether	1200000	U
106-44-5	4-Methylphenol	1200000	U
621-64-7	N-Nitroso-Di-n-propylamine	0.0	NR
67-72-1	Hexachloroethane	1200000	U
98-95-3	Nitrobenzene	1200000	U
78-59-1	Isophorone	1200000	U
88-75-5	2-Nitrophenol	1200000	U
105-67-9	2,4-Dimethylphenol	1200000	U
65-85-0	Benzoic acid	6200000	U
111-91-1	bis(2-Chloroethoxy)methane	1200000	U
120-83-2	2,4-Dichlorophenol	1200000	U
120-82-1	1,2,4-Trichlorobenzene	0.0	NR
91-20-3	Naphthalene	1200000	U
106-47-8	4-Chloroaniline	1200000	U
87-68-3	Hexachlorobutadiene	1200000	U
59-50-7	4-Chloro-3-methylphenol	0.0	NR
91-57-6	2-Methylnaphthalene	1200000	U
77-47-4	Hexachlorocyclopentadiene	1200000	U
88-06-2	2,4,6-Trichlorophenol	1200000	U
95-95-4	2,4,5-Trichlorophenol	6200000	U
91-58-7	2-Chloronaphthalene	1200000	U
88-74-4	2-Nitroaniline	6200000	U
131-11-3	Dimethylphthalate	1200000	U
208-96-8	Acenaphthylene	1200000	U
606-20-2	2,6-Dinitrotoluene	1200000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000029

CLIENT SAMPLE NO.

BOOJOO

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-001

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050215

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/02/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	6200000	U
83-32-9	Acenaphthene	0.0	NR
51-28-5	2,4-Dinitrophenol	6200000	U
100-02-7	4-Nitrophenol	0.0	NR
132-64-9	Dibenzofuran	1200000	U
121-14-2	2,4-Dinitrotoluene	0.0	NR
84-66-2	Diethylphthalate	1200000	U
7005-72-3	4-Chlorophenyl-phenylether	1200000	U
86-73-7	Fluorene	1200000	U
100-01-6	4-Nitroaniline	6200000	U
534-52-1	4,6-Dinitro-2-methylphenol	6200000	U
86-30-6	N-Nitrosodiphenylamine (1)	1200000	U
101-55-3	4-Bromophenyl-phenylether	1200000	U
118-74-1	Hexachlorobenzene	1200000	U
87-86-5	Pentachlorophenol	0.0	NR
85-01-8	Phenanthrene	1200000	U
120-12-7	Anthracene	1200000	U
84-74-2	Di-n-Butylphthalate	1200000	U
206-44-0	Fluoranthene	1200000	U
129-00-0	Pyrene	0.0	NR
85-68-7	Butylbenzylphthalate	1200000	U
91-94-1	3,3'-Dichlorobenzidine	2500000	U
56-55-3	Benzo(a)anthracene	1200000	U
218-01-9	Chrysene	1200000	U
117-81-7	bis(2-Ethylhexyl)phthalate	1200000	U
117-84-0	Di-n-Octyl phthalate	1200000	U
205-99-2	Benzo(b)fluoranthene	1200000	U
207-08-9	Benzo(k)fluoranthene	1200000	U
50-32-8	Benzo(a)pyrene	1200000	U
193-39-5	Indeno(1,2,3-cd)pyrene	1200000	U
53-70-3	Dibenzo(a,h)anthracene	1200000	U
191-24-2	Benzo(g,h,i)perylene	1200000	U

(1) - Cannot be separated from Diphenylamine

1D

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000030

CLIENT SAMPLE NO.

BOOJOO

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-001

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050215

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/02/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
126-73-8	Tributylphosphate	1200000	U

FORM 1 SV-3

12/88 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000031

TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

BOOJOO

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-001

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050215

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/02/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

Number TICs found: 0

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

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

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000038

CLIENT SAMPLE NO.

BOOJOORE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-001

Sample wt/vol: 1.10 (g/mL) G

Lab File ID: M051009

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
108-95-2	Phenol	910000	U
111-44-4	bis(2-Chloroethyl)ether	910000	U
95-57-8	2-Chlorophenol	910000	U
541-73-1	1,3-Dichlorobenzene	910000	U
106-46-7	1,4-Dichlorobenzene	910000	U
100-51-6	Benzyl alcohol	910000	U
95-50-1	1,2-Dichlorobenzene	910000	U
95-48-7	2-Methylphenol	910000	U
108-60-1	bis(2-Chloroisopropyl)ether	910000	U
106-44-5	4-Methylphenol	910000	U
621-64-7	N-Nitroso-Di-n-propylamine	910000	U
67-72-1	Hexachloroethane	910000	U
98-95-3	Nitrobenzene	910000	U
78-59-1	Isophorone	910000	U
88-75-5	2-Nitrophenol	910000	U
105-67-9	2,4-Dimethylphenol	910000	U
65-85-0	Benzoic acid	4500000	U
111-91-1	bis(2-Chloroethoxy)methane	910000	U
120-83-2	2,4-Dichlorophenol	910000	U
120-82-1	1,2,4-Trichlorobenzene	910000	U
91-20-3	Naphthalene	910000	U
106-47-8	4-Chloroaniline	910000	U
87-68-3	Hexachlorobutadiene	910000	U
59-50-7	4-Chloro-3-methylphenol	910000	U
91-57-6	2-Methylnaphthalene	910000	U
77-47-4	Hexachlorocyclopentadiene	910000	U
88-06-2	2,4,6-Trichlorophenol	910000	U
95-95-4	2,4,5-Trichlorophenol	4500000	U
91-58-7	2-Chloronaphthalene	910000	U
88-74-4	2-Nitroaniline	4500000	U
131-11-3	Dimethylphthalate	910000	U
208-96-8	Acenaphthylene	910000	U
606-20-2	2,6-Dinitrotoluene	910000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000039

CLIENT SAMPLE NO.

BOOJOORE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9103L121-001

Sample wt/vol: 1.10 (g/mL) G Lab File ID: M051009

Level: (low/med) LOW Date Received: 03/29/91

% Moisture: not dec. 0 dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	4500000	U
83-32-9	Acenaphthene	910000	U
51-28-5	2,4-Dinitrophenol	4500000	U
100-02-7	4-Nitrophenol	4500000	U
132-64-9	Dibenzofuran	910000	U
121-14-2	2,4-Dinitrotoluene	910000	U
84-66-2	Diethylphthalate	910000	U
7005-72-3	4-Chlorophenyl-phenylether	910000	U
86-73-7	Fluorene	910000	U
100-01-6	4-Nitroaniline	4500000	U
534-52-1	4,6-Dinitro-2-methylphenol	4500000	U
86-30-6	N-Nitrosodiphenylamine (1)	910000	U
101-55-3	4-Bromophenyl-phenylether	910000	U
118-74-1	Hexachlorobenzene	910000	U
87-86-5	Pentachlorophenol	4500000	U
85-01-8	Phenanthrene	910000	U
120-12-7	Anthracene	910000	U
84-74-2	Di-n-Butylphthalate	910000	U
206-44-0	Fluoranthene	910000	U
129-00-0	Pyrene	910000	U
85-68-7	Butylbenzylphthalate	910000	U
91-94-1	3,3'-Dichlorobenzidine	1800000	U
56-55-3	Benzo(a)anthracene	910000	U
218-01-9	Chrysene	910000	U
117-81-7	bis(2-Ethylhexyl)phthalate	910000	U
117-84-0	Di-n-Octyl phthalate	910000	U
205-99-2	Benzo(b)fluoranthene	910000	U
207-08-9	Benzo(k)fluoranthene	910000	U
50-32-8	Benzo(a)pyrene	910000	U
193-39-5	Indeno(1,2,3-cd)pyrene	910000	U
53-70-3	Dibenzo(a,h)anthracene	910000	U
191-24-2	Benzo(g,h,i)perylene	910000	U

(1) - Cannot be separated from Diphenylamine

1D

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000040

CLIENT SAMPLE NO.

BOOJOORE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-001

Sample wt/vol: 1.10 (g/mL) G

Lab File ID: M051009

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
126-73-8	Tributylphosphate	910000	U

FORM 1 SV-3

12/88 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000041

CLIENT SAMPLE NO.

BOOJOORE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-001

Sample wt/vol: 1.10 (g/mL) G

Lab File ID: M051009

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

Number TICs found: 0

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

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

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000048

CLIENT SAMPLE NO.

B00J01

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9103L121-002

Sample wt/vol: 0.800 (g/mL) G Lab File ID: M050216

Level: (low/med) LOW Date Received: 03/29/91

% Moisture: not dec. 100 dec. Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/02/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

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

CAS NO.	COMPOUND		
108-95-2	Phenol	0.0	NR
111-44-4	bis(2-Chloroethyl)ether	1200000	U
95-57-8	2-Chlorophenol	0.0	NR
541-73-1	1,3-Dichlorobenzene	1200000	U
106-46-7	1,4-Dichlorobenzene	0.0	NR
100-51-6	Benzyl alcohol	1200000	U
95-50-1	1,2-Dichlorobenzene	1200000	U
95-48-7	2-Methylphenol	1200000	U
108-60-1	bis(2-Chloroisopropyl)ether	1200000	U
106-44-5	4-Methylphenol	1200000	U
621-64-7	N-Nitroso-Di-n-propylamine	0.0	NR
67-72-1	Hexachloroethane	1200000	U
98-95-3	Nitrobenzene	1200000	U
78-59-1	Isophorone	1200000	U
88-75-5	2-Nitrophenol	1200000	U
105-67-9	2,4-Dimethylphenol	1200000	U
65-85-0	Benzoic acid	6200000	U
111-91-1	bis(2-Chloroethoxy)methane	1200000	U
120-83-2	2,4-Dichlorophenol	1200000	U
120-82-1	1,2,4-Trichlorobenzene	0.0	NR
91-20-3	Naphthalene	1200000	U
106-47-8	4-Chloroaniline	1200000	U
87-68-3	Hexachlorobutadiene	1200000	U
59-50-7	4-Chloro-3-methylphenol	0.0	NR
91-57-6	2-Methylnaphthalene	1200000	U
77-47-4	Hexachlorocyclopentadiene	1200000	U
88-06-2	2,4,6-Trichlorophenol	1200000	U
95-95-4	2,4,5-Trichlorophenol	6200000	U
91-58-7	2-Chloronaphthalene	1200000	U
88-74-4	2-Nitroaniline	6200000	U
131-11-3	Dimethylphthalate	1200000	U
208-96-8	Acenaphthylene	1200000	U
606-20-2	2,6-Dinitrotoluene	1200000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000049

CLIENT SAMPLE NO.

B00J01

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-002

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050216

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/02/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	6200000	U
83-32-9	Acenaphthene	0.0	NR
51-28-5	2,4-Dinitrophenol	6200000	U
100-02-7	4-Nitrophenol	6200000	U
132-64-9	Dibenzofuran	1200000	U
121-14-2	2,4-Dinitrotoluene	0.0	NR
84-66-2	Diethylphthalate	1200000	U
7005-72-3	4-Chlorophenyl-phenylether	1200000	U
86-73-7	Fluorene	1200000	U
100-01-6	4-Nitroaniline	6200000	U
534-52-1	4,6-Dinitro-2-methylphenol	6200000	U
86-30-6	N-Nitrosodiphenylamine (1)	1200000	U
101-55-3	4-Bromophenyl-phenylether	1200000	U
118-74-1	Hexachlorobenzene	1200000	U
87-86-5	Pentachlorophenol	0.0	NR
85-01-8	Phenanthrene	1200000	U
120-12-7	Anthracene	1200000	U
84-74-2	Di-n-Butylphthalate	1200000	U
206-44-0	Fluoranthene	1200000	U
129-00-0	Pyrene	0.0	NR
85-68-7	Butylbenzylphthalate	1200000	U
91-94-1	3,3'-Dichlorobenzidine	2500000	U
56-55-3	Benzo(a)anthracene	1200000	U
218-01-9	Chrysene	1200000	U
117-81-7	bis(2-Ethylhexyl)phthalate	1200000	U
117-84-0	Di-n-Octyl phthalate	1200000	U
205-99-2	Benzo(b)fluoranthene	1200000	U
207-08-9	Benzo(k)fluoranthene	1200000	U
50-32-8	Benzo(a)pyrene	1200000	U
193-39-5	Indeno(1,2,3-cd)pyrene	1200000	U
53-70-3	Dibenzo(a,h)anthracene	1200000	U
191-24-2	Benzo(g,h,i)perylene	1200000	U

(1) - Cannot be separated from Diphenylamine

1D

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000050

CLIENT SAMPLE NO.

B00J01

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9103L121-002

Sample wt/vol: 0.800 (g/mL) G Lab File ID: M050216

Level: (low/med) LOW Date Received: 03/29/91

% Moisture: not dec. 100 dec. Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/02/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

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

CAS NO.	COMPOUND		
126-73-8	Tributylphosphate	1200000	U

FORM 1 SV-3 12/88 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000051

CLIENT SAMPLE NO.

B00J01

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-002

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050216

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/02/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	10.62	600000	J
2.	UNKNOWN	11.05	2000000	J

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000061

CLIENT SAMPLE NO.

B00J01RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-002

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M051010

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
108-95-2	Phenol	1000000	U
111-44-4	bis(2-Chloroethyl)ether	1000000	U
95-57-8	2-Chlorophenol	1000000	U
541-73-1	1,3-Dichlorobenzene	1000000	U
106-46-7	1,4-Dichlorobenzene	1000000	U
100-51-6	Benzyl alcohol	1000000	U
95-50-1	1,2-Dichlorobenzene	1000000	U
95-48-7	2-Methylphenol	1000000	U
108-60-1	bis(2-Chloroisopropyl)ether	1000000	U
106-44-5	4-Methylphenol	1000000	U
621-64-7	N-Nitroso-Di-n-propylamine	1000000	U
67-72-1	Hexachloroethane	1000000	U
98-95-3	Nitrobenzene	1000000	U
78-59-1	Isophorone	1000000	U
88-75-5	2-Nitrophenol	1000000	U
105-67-9	2,4-Dimethylphenol	1000000	U
65-85-0	Benzoic acid	5000000	U
111-91-1	bis(2-Chloroethoxy)methane	1000000	U
120-83-2	2,4-Dichlorophenol	1000000	U
120-82-1	1,2,4-Trichlorobenzene	1000000	U
91-20-3	Naphthalene	1000000	U
106-47-8	4-Chloroaniline	1000000	U
87-68-3	Hexachlorobutadiene	1000000	U
59-50-7	4-Chloro-3-methylphenol	1000000	U
91-57-6	2-Methylnaphthalene	1000000	U
77-47-4	Hexachlorocyclopentadiene	1000000	U
88-06-2	2,4,6-Trichlorophenol	1000000	U
95-95-4	2,4,5-Trichlorophenol	5000000	U
91-58-7	2-Chloronaphthalene	1000000	U
88-74-4	2-Nitroaniline	5000000	U
131-11-3	Dimethylphthalate	1000000	U
208-96-8	Acenaphthylene	1000000	U
606-20-2	2,6-Dinitrotoluene	1000000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000062

CLIENT SAMPLE NO.

B00J01RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-002

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M051010

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	5000000	U
83-32-9	Acenaphthene	1000000	U
51-28-5	2,4-Dinitrophenol	5000000	U
100-02-7	4-Nitrophenol	5000000	U
132-64-9	Dibenzofuran	1000000	U
121-14-2	2,4-Dinitrotoluene	1000000	U
84-66-2	Diethylphthalate	1000000	U
7005-72-3	4-Chlorophenyl-phenylether	1000000	U
86-73-7	Fluorene	1000000	U
100-01-6	4-Nitroaniline	5000000	U
534-52-1	4,6-Dinitro-2-methylphenol	5000000	U
86-30-6	N-Nitrosodiphenylamine (1)	1000000	U
101-55-3	4-Bromophenyl-phenylether	1000000	U
118-74-1	Hexachlorobenzene	1000000	U
87-86-5	Pentachlorophenol	5000000	U
85-01-8	Phenanthrene	1000000	U
120-12-7	Anthracene	1000000	U
84-74-2	Di-n-Butylphthalate	1000000	U
206-44-0	Fluoranthene	1000000	U
129-00-0	Pyrene	1000000	U
85-68-7	Butylbenzylphthalate	1000000	U
91-94-1	3,3'-Dichlorobenzidine	2000000	U
56-55-3	Benzo(a)anthracene	1000000	U
218-01-9	Chrysene	1000000	U
117-81-7	bis(2-Ethylhexyl)phthalate	1000000	U
117-84-0	Di-n-Octyl phthalate	1000000	U
205-99-2	Benzo(b)fluoranthene	1000000	U
207-08-9	Benzo(k)fluoranthene	1000000	U
50-32-8	Benzo(a)pyrene	1000000	U
193-39-5	Indeno(1,2,3-cd)pyrene	1000000	U
53-70-3	Dibenzo(a,h)anthracene	1000000	U
191-24-2	Benzo(g,h,i)perylene	1000000	U

(1) - Cannot be separated from Diphenylamine

1D

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000063

CLIENT SAMPLE NO.

B00J01RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-002

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M051010

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
126-73-8	Tributylphosphate	170000	J

FORM 1 SV-3

12/88 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000064

TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B00J01RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-002

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M051010

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	10.58	400000	J
2.	UNKNOWN	11.00	1000000	J

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000076

CLIENT SAMPLE NO.

B00J03

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9103L121-003

Sample wt/vol: 0.800 (g/mL) G Lab File ID: M050305

Level: (low/med) LOW Date Received: 03/29/91

% Moisture: not dec. 0 dec. Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

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

CAS NO.	COMPOUND		
108-95-2	Phenol	0.0	NR
111-44-4	bis(2-Chloroethyl)ether	1200000	U
95-57-8	2-Chlorophenol	0.0	NR
541-73-1	1,3-Dichlorobenzene	1200000	U
106-46-7	1,4-Dichlorobenzene	0.0	NR
100-51-6	Benzyl alcohol	1200000	U
95-50-1	1,2-Dichlorobenzene	1200000	U
95-48-7	2-Methylphenol	1200000	U
108-60-1	bis(2-Chloroisopropyl)ether	1200000	U
106-44-5	4-Methylphenol	1200000	U
621-64-7	N-Nitroso-Di-n-propylamine	0.0	NR
67-72-1	Hexachloroethane	1200000	U
98-95-3	Nitrobenzene	1200000	U
78-59-1	Isophorone	1200000	U
88-75-5	2-Nitrophenol	1200000	U
105-67-9	2,4-Dimethylphenol	1200000	U
65-85-0	Benzoic acid	6200000	U
111-91-1	bis(2-Chloroethoxy)methane	1200000	U
120-83-2	2,4-Dichlorophenol	1200000	U
120-82-1	1,2,4-Trichlorobenzene	0.0	NR
91-20-3	Naphthalene	1200000	U
106-47-8	4-Chloroaniline	1200000	U
87-68-3	Hexachlorobutadiene	1200000	U
59-50-7	4-Chloro-3-methylphenol	0.0	NR
91-57-6	2-Methylnaphthalene	1200000	U
77-47-4	Hexachlorocyclopentadiene	1200000	U
88-06-2	2,4,6-Trichlorophenol	1200000	U
95-95-4	2,4,5-Trichlorophenol	6200000	U
91-58-7	2-Chloronaphthalene	1200000	U
88-74-4	2-Nitroaniline	6200000	U
131-11-3	Dimethylphthalate	1200000	U
208-96-8	Acenaphthylene	1200000	U
606-20-2	2,6-Dinitrotoluene	1200000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000077

CLIENT SAMPLE NO.

B00J03

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-003

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050305

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	6200000	U
83-32-9	Acenaphthene	0.0	NR
51-28-5	2,4-Dinitrophenol	6200000	U
100-02-7	4-Nitrophenol	6200000	U
132-64-9	Dibenzofuran	1200000	U
121-14-2	2,4-Dinitrotoluene	0.0	NR
84-66-2	Diethylphthalate	1200000	U
7005-72-3	4-Chlorophenyl-phenylether	1200000	U
86-73-7	Fluorene	1200000	U
100-01-6	4-Nitroaniline	6200000	U
534-52-1	4,6-Dinitro-2-methylphenol	6200000	U
86-30-6	N-Nitrosodiphenylamine (1)	1200000	U
101-55-3	4-Bromophenyl-phenylether	1200000	U
118-74-1	Hexachlorobenzene	1200000	U
87-86-5	Pentachlorophenol	0.0	NR
85-01-8	Phenanthrene	1200000	U
120-12-7	Anthracene	1200000	U
84-74-2	Di-n-Butylphthalate	1200000	U
206-44-0	Fluoranthene	1200000	U
129-00-0	Pyrene	0.0	NR
85-68-7	Butylbenzylphthalate	1200000	U
91-94-1	3,3'-Dichlorobenzidine	2500000	U
56-55-3	Benzo(a)anthracene	1200000	U
218-01-9	Chrysene	1200000	U
117-81-7	bis(2-Ethylhexyl)phthalate	1200000	U
117-84-0	Di-n-Octyl phthalate	1200000	U
205-99-2	Benzo(b)fluoranthene	1200000	U
207-08-9	Benzo(k)fluoranthene	1200000	U
50-32-8	Benzo(a)pyrene	1200000	U
193-39-5	Indeno(1,2,3-cd)pyrene	1200000	U
53-70-3	Dibenzo(a,h)anthracene	1200000	U
191-24-2	Benzo(g,h,i)perylene	1200000	U

(1) - Cannot be separated from Diphenylamine

1D

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000078

CLIENT SAMPLE NO.

B00J03

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-003

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050305

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
126-73-8	Tributylphosphate	1200000	U

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12/88 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000079

CLIENT SAMPLE NO.

B00J03

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-003

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050305

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.33	600000	J

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 0000088 88

CLIENT SAMPLE NO. 6/22/95

B00J03RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9103L121-003

Sample wt/vol: 1.00 (g/mL) G Lab File ID: M051011

Level: (low/med) LOW Date Received: 03/29/91

% Moisture: not dec. 0 dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

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

CAS NO.	COMPOUND		
108-95-2	Phenol	1000000	U
111-44-4	bis(2-Chloroethyl)ether	1000000	U
95-57-8	2-Chlorophenol	1000000	U
541-73-1	1,3-Dichlorobenzene	1000000	U
106-46-7	1,4-Dichlorobenzene	1000000	U
100-51-6	Benzyl alcohol	1000000	U
95-50-1	1,2-Dichlorobenzene	1000000	U
95-48-7	2-Methylphenol	1000000	U
108-60-1	bis(2-Chloroisopropyl)ether	1000000	U
106-44-5	4-Methylphenol	1000000	U
621-64-7	N-Nitroso-Di-n-propylamine	1000000	U
67-72-1	Hexachloroethane	1000000	U
98-95-3	Nitrobenzene	1000000	U
78-59-1	Isophorone	1000000	U
88-75-5	2-Nitrophenol	1000000	U
105-67-9	2,4-Dimethylphenol	1000000	U
65-85-0	Benzoic acid	5000000	U
111-91-1	bis(2-Chloroethoxy)methane	1000000	U
120-83-2	2,4-Dichlorophenol	1000000	U
120-82-1	1,2,4-Trichlorobenzene	1000000	U
91-20-3	Naphthalene	1000000	U
106-47-8	4-Chloroaniline	1000000	U
87-68-3	Hexachlorobutadiene	1000000	U
59-50-7	4-Chloro-3-methylphenol	1000000	U
91-57-6	2-Methylnaphthalene	1000000	U
77-47-4	Hexachlorocyclopentadiene	1000000	U
88-06-2	2,4,6-Trichlorophenol	1000000	U
95-95-4	2,4,5-Trichlorophenol	5000000	U
91-58-7	2-Chloronaphthalene	1000000	U
88-74-4	2-Nitroaniline	5000000	U
131-11-3	Dimethylphthalate	1000000	U
208-96-8	Acenaphthylene	1000000	U
606-20-2	2,6-Dinitrotoluene	1000000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000089 89

CLIENT SAMPLE NO.

6/22/95

B00J03RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9103L121-003

Sample wt/vol: 1.00 (g/mL) G Lab File ID: M051011

Level: (low/med) LOW Date Received: 03/29/91

% Moisture: not dec. 0 dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	5000000	U
83-32-9	Acenaphthene	1000000	U
51-28-5	2,4-Dinitrophenol	5000000	U
100-02-7	4-Nitrophenol	5000000	U
132-64-9	Dibenzofuran	1000000	U
121-14-2	2,4-Dinitrotoluene	1000000	U
84-66-2	Diethylphthalate	1000000	U
7005-72-3	4-Chlorophenyl-phenylether	1000000	U
86-73-7	Fluorene	1000000	U
100-01-6	4-Nitroaniline	5000000	U
534-52-1	4,6-Dinitro-2-methylphenol	5000000	U
86-30-6	N-Nitrosodiphenylamine (1)	1000000	U
101-55-3	4-Bromophenyl-phenylether	1000000	U
118-74-1	Hexachlorobenzene	1000000	U
87-86-5	Pentachlorophenol	5000000	U
85-01-8	Phenanthrene	1000000	U
120-12-7	Anthracene	1000000	U
84-74-2	Di-n-Butylphthalate	1000000	U
206-44-0	Fluoranthene	1000000	U
129-00-0	Pyrene	1000000	U
85-68-7	Butylbenzylphthalate	1000000	U
91-94-1	3,3'-Dichlorobenzidine	2000000	U
56-55-3	Benzo(a)anthracene	1000000	U
218-01-9	Chrysene	1000000	U
117-81-7	bis(2-Ethylhexyl)phthalate	1000000	U
117-84-0	Di-n-Octyl phthalate	1000000	U
205-99-2	Benzo(b)fluoranthene	1000000	U
207-08-9	Benzo(k)fluoranthene	1000000	U
50-32-8	Benzo(a)pyrene	1000000	U
193-39-5	Indeno(1,2,3-cd)pyrene	1000000	U
53-70-3	Dibenzo(a,h)anthracene	1000000	U
191-24-2	Benzo(g,h,i)perylene	1000000	U

(1) - Cannot be separated from Diphenylamine

1D
SEMIVOLATILE ORGANICS ANALYSIS SHEET

000090

CLIENT SAMPLE NO.

B00J03RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9103L121-003

Sample wt/vol: 1.00 (g/mL) G Lab File ID: M051011

Level: (low/med) LOW Date Received: 03/29/91

% Moisture: not dec. 0 dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

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

CAS NO.	COMPOUND		
126-73-8	Tributylphosphate	1000000	U

FORM 1 SV-3 12/88 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000091

CLIENT SAMPLE NO.

B00J03RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-003

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M051011

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.25	600000	J

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 0 0 0 1 0 0

CLIENT SAMPLE NO.

B00J04

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-004

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050306

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
108-95-2	Phenol	0.0	NR
111-44-4	bis(2-Chloroethyl)ether	1200000	U
95-57-8	2-Chlorophenol	0.0	NR
541-73-1	1,3-Dichlorobenzene	1200000	U
106-46-7	1,4-Dichlorobenzene	0.0	NR
100-51-6	Benzyl alcohol	1200000	U
95-50-1	1,2-Dichlorobenzene	1200000	U
95-48-7	2-Methylphenol	1200000	U
108-60-1	bis(2-Chloroisopropyl)ether	1200000	U
106-44-5	4-Methylphenol	1200000	U
621-64-7	N-Nitroso-Di-n-propylamine	0.0	NR
67-72-1	Hexachloroethane	1200000	U
98-95-3	Nitrobenzene	1200000	U
78-59-1	Isophorone	1200000	U
88-75-5	2-Nitrophenol	1200000	U
105-67-9	2,4-Dimethylphenol	1200000	U
65-85-0	Benzoic acid	6200000	U
111-91-1	bis(2-Chloroethoxy)methane	1200000	U
120-83-2	2,4-Dichlorophenol	1200000	U
120-82-1	1,2,4-Trichlorobenzene	0.0	NR
91-20-3	Naphthalene	1200000	U
106-47-8	4-Chloroaniline	1200000	U
87-68-3	Hexachlorobutadiene	1200000	U
59-50-7	4-Chloro-3-methylphenol	0.0	NR
91-57-6	2-Methylnaphthalene	1200000	U
77-47-4	Hexachlorocyclopentadiene	1200000	U
88-06-2	2,4,6-Trichlorophenol	1200000	U
95-95-4	2,4,5-Trichlorophenol	6200000	U
91-58-7	2-Chloronaphthalene	1200000	U
88-74-4	2-Nitroaniline	6200000	U
131-11-3	Dimethylphthalate	1200000	U
208-96-8	Acenaphthylene	1200000	U
606-20-2	2,6-Dinitrotoluene	1200000	U

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET 000101

CLIENT SAMPLE NO.

B00J04

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9103L121-004

Sample wt/vol: 0.800 (g/mL) G Lab File ID: M050306

Level: (low/med) LOW Date Received: 03/29/91

% Moisture: not dec. 0 dec. Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	6200000	U
83-32-9	Acenaphthene	0.0	NR
51-28-5	2,4-Dinitrophenol	6200000	U
100-02-7	4-Nitrophenol	0.0	NR
132-64-9	Dibenzofuran	1200000	U
121-14-2	2,4-Dinitrotoluene	0.0	NR
84-66-2	Diethylphthalate	1200000	U
7005-72-3	4-Chlorophenyl-phenylether	1200000	U
86-73-7	Fluorene	1200000	U
100-01-6	4-Nitroaniline	6200000	U
534-52-1	4,6-Dinitro-2-methylphenol	6200000	U
86-30-6	N-Nitrosodiphenylamine (1)	1200000	U
101-55-3	4-Bromophenyl-phenylether	1200000	U
118-74-1	Hexachlorobenzene	1200000	U
87-86-5	Pentachlorophenol	0.0	NR
85-01-8	Phenanthrene	1200000	U
120-12-7	Anthracene	1200000	U
84-74-2	Di-n-Butylphthalate	1200000	U
206-44-0	Fluoranthene	1200000	U
129-00-0	Pyrene	0.0	NR
85-68-7	Butylbenzylphthalate	1200000	U
91-94-1	3,3'-Dichlorobenzidine	2500000	U
56-55-3	Benzo(a)anthracene	1200000	U
218-01-9	Chrysene	1200000	U
117-81-7	bis(2-Ethylhexyl)phthalate	1200000	U
117-84-0	Di-n-Octyl phthalate	1200000	U
205-99-2	Benzo(b)fluoranthene	1200000	U
207-08-9	Benzo(k)fluoranthene	1200000	U
50-32-8	Benzo(a)pyrene	1200000	U
193-39-5	Indeno(1,2,3-cd)pyrene	1200000	U
53-70-3	Dibenzo(a,h)anthracene	1200000	U
191-24-2	Benzo(g,h,i)perylene	1200000	U

(1) - Cannot be separated from Diphenylamine

1D
SEMIVOLATILE ORGANICS ANALYSIS SHEET 000102

CLIENT SAMPLE NO.

B00J04

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9103L121-004

Sample wt/vol: 0.800 (g/mL) G Lab File ID: M050306

Level: (low/med) LOW Date Received: 03/29/91

% Moisture: not dec. 0 dec. Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

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

CAS NO.	COMPOUND		
126-73-8	Tributylphosphate	370000	J

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1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

000103

CLIENT SAMPLE NO.

B00J04

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-004

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050306

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	10.62	600000	J
2.	UNKNOWN	11.03	2000000	J

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000115

CLIENT SAMPLE NO.

B00J04RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9103L121-004

Sample wt/vol: 1.00 (g/mL) G Lab File ID: M051012

Level: (low/med) LOW Date Received: 03/29/91

% Moisture: not dec. 0 dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

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

CAS NO.	COMPOUND		
108-95-2	Phenol	1000000	U
111-44-4	bis(2-Chloroethyl)ether	1000000	U
95-57-8	2-Chlorophenol	1000000	U
541-73-1	1,3-Dichlorobenzene	1000000	U
106-46-7	1,4-Dichlorobenzene	1000000	U
100-51-6	Benzyl alcohol	1000000	U
95-50-1	1,2-Dichlorobenzene	1000000	U
95-48-7	2-Methylphenol	1000000	U
108-60-1	bis(2-Chloroisopropyl)ether	1000000	U
106-44-5	4-Methylphenol	1000000	U
621-64-7	N-Nitroso-Di-n-propylamine	1000000	U
67-72-1	Hexachloroethane	1000000	U
98-95-3	Nitrobenzene	1000000	U
78-59-1	Isophorone	1000000	U
88-75-5	2-Nitrophenol	1000000	U
105-67-9	2,4-Dimethylphenol	1000000	U
65-85-0	Benzoic acid	5000000	U
111-91-1	bis(2-Chloroethoxy)methane	1000000	U
120-83-2	2,4-Dichlorophenol	1000000	U
120-82-1	1,2,4-Trichlorobenzene	1000000	U
91-20-3	Naphthalene	1000000	U
106-47-8	4-Chloroaniline	1000000	U
87-68-3	Hexachlorobutadiene	1000000	U
59-50-7	4-Chloro-3-methylphenol	1000000	U
91-57-6	2-Methylnaphthalene	1000000	U
77-47-4	Hexachlorocyclopentadiene	1000000	U
88-06-2	2,4,6-Trichlorophenol	1000000	U
95-95-4	2,4,5-Trichlorophenol	5000000	U
91-58-7	2-Chloronaphthalene	1000000	U
88-74-4	2-Nitroaniline	5000000	U
131-11-3	Dimethylphthalate	1000000	U
208-96-8	Acenaphthylene	1000000	U
606-20-2	2,6-Dinitrotoluene	1000000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET

116 gr 6/22/95

0000116

CLIENT SAMPLE NO.

B00J04RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-004

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M051012

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	5000000	U
83-32-9	Acenaphthene	1000000	U
51-28-5	2,4-Dinitrophenol	5000000	U
100-02-7	4-Nitrophenol	5000000	U
132-64-9	Dibenzofuran	1000000	U
121-14-2	2,4-Dinitrotoluene	1000000	U
84-66-2	Diethylphthalate	1000000	U
7005-72-3	4-Chlorophenyl-phenylether	1000000	U
86-73-7	Fluorene	1000000	U
100-01-6	4-Nitroaniline	5000000	U
534-52-1	4,6-Dinitro-2-methylphenol	5000000	U
86-30-6	N-Nitrosodiphenylamine (1)	1000000	U
101-55-3	4-Bromophenyl-phenylether	1000000	U
118-74-1	Hexachlorobenzene	1000000	U
87-86-5	Pentachlorophenol	5000000	U
85-01-8	Phenanthrene	1000000	U
120-12-7	Anthracene	1000000	U
84-74-2	Di-n-Butylphthalate	1000000	U
206-44-0	Fluoranthene	1000000	U
129-00-0	Pyrene	1000000	U
85-68-7	Butylbenzylphthalate	1000000	U
91-94-1	3,3'-Dichlorobenzidine	2000000	U
56-55-3	Benzo(a)anthracene	1000000	U
218-01-9	Chrysene	1000000	U
117-81-7	bis(2-Ethylhexyl)phthalate	1000000	U
117-84-0	Di-n-Octyl phthalate	1000000	U
205-99-2	Benzo(b)fluoranthene	1000000	U
207-08-9	Benzo(k)fluoranthene	1000000	U
50-32-8	Benzo(a)pyrene	1000000	U
193-39-5	Indeno(1,2,3-cd)pyrene	1000000	U
53-70-3	Dibenzo(a,h)anthracene	1000000	U
191-24-2	Benzo(g,h,i)perylene	1000000	U

(1) - Cannot be separated from Diphenylamine

Roy F. Weston, Inc. - Lionville Laboratory

PCBs by GC

Report Date: 05/03/91 18:24

RFW Batch Number: 9103L121 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Page: 1

	Cust ID:	B00J00		B00J01		B00J03		B00J04		B00J04		B00J04	
Sample Information	RFW#:	001		002		003		004		004 MS		004 MSD	
	Matrix:	DRUM		DRUM		DRUM		DRUM		DRUM		DRUM	
	D.F.:	0.500		2.50		0.500		2.50		2.50		2.50	
	Units:	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Surrogate: Di-n-butylchlorendate		74	%	127	%	119	%	113	%	117	%	124	%
Aroclor-1016		12000	U	60000	U	12000	U	60000	U	60000	U	60000	U
Aroclor-1221		12000	U	60000	U	12000	U	60000	U	60000	U	60000	U
Aroclor-1232		12000	U	60000	U	12000	U	60000	U	60000	U	60000	U
Aroclor-1242		12000	U	60000	U	12000	U	60000	U	60000	U	60000	U
Aroclor-1248		12000	U	60000	U	12000	U	60000	U	60000	U	60000	U
Aroclor-1254		24000	U	120000	U	24000	U	120000	U	128	%	134	%
Aroclor-1260		24000	U	120000	U	24000	U	120000	U	120000	U	120000	U

	Cust ID:	PBLK		PBLK BS	
Sample Information	RFW#:	91LE0433-MB1		91LE0433-MB1	
	Matrix:	SOIL		SOIL	
	D.F.:	0.500		0.500	
	Units:	ug/Kg		ug/Kg	
Surrogate: Di-n-butylchlorendate		110	%	115	%
Aroclor-1016		12000	U	12000	U
Aroclor-1221		12000	U	12000	U
Aroclor-1232		12000	U	12000	U
Aroclor-1242		12000	U	12000	U
Aroclor-1248		12000	U	12000	U
Aroclor-1254		24000	U	101	%
Aroclor-1260		24000	U	24000	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

000004

5A

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 03-29-91
RFW #: 9103L121, PEST/PCB
W.O. #: 6168-02-01

NARRATIVE

The set of samples consisted of four (4) drum samples collected on 03-28-91.

The samples were extracted on 04-01-91 and analyzed according to criteria set forth in the Contract Laboratory Program for Pesticide and PCB target compounds on 05-02,03-91.

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

1. Linearity and breakdown criteria were met on the primary column.

2. Continuing calibration criteria were exceeded for both pesticide and arochlor standards analyzed prior to sample extracts. The deviation indicates an increase in sensitivity, so the ability to detect compounds should not be impaired.

3. Retention time criteria were exceeded for several compounds but the data should not affect the data since PCB compounds are identified by multi-peak pattern recognition.

4. All surrogate recoveries were within EPA QC limits.

5. All matrix spike recoveries were within EPA QC limits.

6. The blank spike recovery was within EPA QC limits

7. Samples B00J01, B00J04, B00J04 MS and MSD required five-fold dilutions because they contained high levels of non-target compounds.

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

5.8.91
Date

1D

PESTICIDE ORGANICS ANALYSIS SHEET 0000013

CLIENT SAMPLE NO.

BOOJOO

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-001

Sample wt/vol: 0.100 (g/mL) G

Lab File ID: 05019113.42

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/01/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/02/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 0.500

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

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	12000	U
11104-28-2	Aroclor-1221	12000	U
11141-16-5	Aroclor-1232	12000	U
53469-21-9	Aroclor-1242	12000	U
12672-29-6	Aroclor-1248	12000	U
11097-69-1	Aroclor-1254	24000	U
11096-82-5	Aroclor-1260	24000	U

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PESTICIDE ORGANICS ANALYSIS SHEET 0000023

CLIENT SAMPLE NO.

B00J03

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-003

Sample wt/vol: 0.100 (g/mL) G

Lab File ID: 05019113.44

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/01/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 0.500

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

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	12000	U
11104-28-2	Aroclor-1221	12000	U
11141-16-5	Aroclor-1232	12000	U
53469-21-9	Aroclor-1242	12000	U
12672-29-6	Aroclor-1248	12000	U
11097-69-1	Aroclor-1254	24000	U
11096-82-5	Aroclor-1260	24000	U

<6/91

FORM 1 PEST 12/88 Rev.

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PESTICIDE ORGANICS ANALYSIS SHEET 0000028

CLIENT SAMPLE NO.

B00J04

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-004

Sample wt/vol: 0.100 (g/mL) G

Lab File ID: 05019113.45

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/01/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 2.50

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

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	60000	U
11104-28-2	Aroclor-1221	60000	U
11141-16-5	Aroclor-1232	60000	U
53469-21-9	Aroclor-1242	60000	U
12672-29-6	Aroclor-1248	60000	U
11097-69-1	Aroclor-1254	120000	U
11096-82-5	Aroclor-1260	120000	U

5/6/91

FORM 1 PEST 12/88 Rev.

Roy F. Weston, Inc.- Lionville Laboratory

Hydrocarbon Fingerprinting

Client :Westinghouse
RFW# :9103L121-001
Client ID :BOOJOO
Matrix :Drum Liquid
Run Batch :91DGC334
Init. Cal.:04/18/91

Sample Collected:03/28/91
Sample Received :03/29/91
Sample Prepared :04/18/91
Sample Analyzed :04/18/91

Qualitative Identification

Sample consisted of an organic liquid which had an oily odor. There was one major peak which had a retention time that matched MCH (Methyl Cyclo-Hexane).

Degree of Matching = Excellent

Quantitative Report

Total MCH = .83 G/ML

Approximate measured density = .80 G/ML

Theoretical density of MCH = .77 G/ML

Sample quantified versus = Methyl Cyclo-Hexane

Roy F. Weston, Inc.- Lionville Laboratory

Hydrocarbon Fingerprinting

Client :Westinghouse
RFW# :9103L121-002
Client ID :BOOJ01
Matrix :Drum Liquid
Run Batch :91DGC334
Init. Cal.:04/18/91

Sample Collected:03/28/91
Sample Received :03/29/91
Sample Prepared :04/18/91
Sample Analyzed :04/19/91

Qualitative Identification

Sample consisted of an organic layer above an aqueous layer.

Sample had an odor of MIBK (Methyl Iso-Butyl Ketone). The sample chromatogram had one major peak whose retention time matched MIBK.

Degree of Matching = Excellent

Quantitative Report

ORGANIC LAYER

MIBK = .79 G/ML

Volume = 500 ML

Approximate measured density = .87 G/ML

Theoretical density of MIBK = .80 G/ML

AQUEOUS LAYER

MIBK = .02 G/ML

Volume = 180 ML

Solubility of MIBK in water = .02 G/ML

Sample quantified versus = MIBK

Roy F. Weston, Inc.- Lionville Laboratory

Hydrocarbon Fingerprinting

Client :Westinghouse
RFW# :9103L121-003
Client ID :BOOJO3
Matrix :Drum Liquid
Run Batch :91DGC334
Init. Cal.:04/18/91

Sample Collected:03/28/91
Sample Received :03/29/91
Sample Prepared :04/18/91
Sample Analyzed :04/19/91

Qualitative Identification

Sample consisted of an organic liquid which had an oily odor. There was one major peak which had a retention time that matched MCH (Methyl Cyclo-Hexane).

Degree of Matching = Excellent

Quantitative Report

Total MCH = .77 G/ML

Approximate measured density = .81 G/ML

Theoretical density of MCH = .77 G/ML

Sample quantified versus = Methyl Cyclo-Hexane

Roy F. Weston, Inc.- Lionville Laboratory

Hydrocarbon Fingerprinting

Client :Westinghouse
RFW# :9103L121-004
Client ID :B00J04
Matrix :Drum Liquid
Run Batch :91DGC334
Init. Cal.:04/18/91

Sample Collected:03/28/91
Sample Received :03/29/91
Sample Prepared :04/18/91
Sample Analyzed :04/19/91

Qualitative Identification

Sample consisted of an organic layer above an aqueous layer.

Sample had an odor of MIBK (Methyl Iso-Butyl Ketone). The sample chromatogram had one major peak whose retention time matched MIBK.

Degree of Matching = Excellent

Quantitative Report

ORGANIC LAYER

MIBK = .80 G/ML

Volume = 500 ML

Approximate measured density = .87 G/ML

Theoretical density of MIBK = .80 G/ML

AQUEOUS LAYER

MIBK = .02 G/ML

Volume = 180 ML

Solubility of MIBK in water = .02 G/ML

Sample quantified versus = MIBK

65

WESTON

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE SAMPLES RECEIVED: 03/29/91
RFW #: 9103L121 GC SCAN (HYDROCARBON FINGERPRINT)
W.O. #: 6168-02-01-0000

NARRATIVE

This set of samples consisted of four drum liquid samples collected on March 28, 1991.

The liquids were diluted to the proper analytical range and then analyzed by Direct Injection - GC/FID for Hydrocarbons, MIBK (Methyl iso-Butyl Ketone),and MCH (MethylCycloHexane) on April 18, 1991. Dilutions of the liquids were made by adding 100 ul of sample to 9.9 ml Carbon Disulfide (CS2) to yield a 1:100 dilution. Then 100 ul of the 1:100 dilution was added to 4.9 ml CS2 to yield a 1:5000 dilution which was used in the analysis.

Samples 9103L121-002 and -004 contained an organic layer above an aqueous layer. A 4ml aliquot of the aqueous layer was extracted with 4ml Carbon Disulfide (CS2). Then 100 ul of this extract was added to 9.9 ml of CS2 to yield a 1:100 dilution. The 1:100 dilution of the extract was analyzed separately from the organic layer by GC/FID.

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

1. An SP5-30M .53mm ID GC capillary column was utilized in these analyses. The initial temperature was 35 C, which was held for 5 minutes. The temperature was then ramped at a rate of 8 C/minute to a final temperature of 300 C, where it was held for 16 minutes. The injection volume was 1 ul.

2. Results for MIBK, MCH, and hydrocarbons were obtained by External Standard Quantification Method using the average calibration factor from the initial calibration.

3. The method blank was free of contamination.

(continued)

JD 4/29/91

66

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE SAMPLES RECEIVED: 03/29/91
RFW #: 9103L121 GC SCAN (HYDROCARBON FINGERPRINT)
W.O. #: 6168-02-01-0000

NARRATIVE

4. All continuing calibration recoveries were within laboratory control limits. Due to the almost pure organic content of the samples, four continuing calibrations were analyzed in place of blank spikes or matrix spikes.

for Dan Daniels 4/29/91
J. Michael Taylor Date
Project Director
Lionville Analytical Laboratory
WEST121.CN

Roy F. Weston, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 3/29/91
RFW #: 9103L121
W.O. #: 6168-02-01

METALS NARRATIVE

The set of samples consisted of four (4) water samples collected on 3/28/91.

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.

Note: The USEPA has dropped control limits for antimony and silver due to documented difficulties in obtaining reliable results. WESTON Analytics has adopted the same policy.

6. All matrix spike recoveries were within the 75-125% control limits with the exception of Ag and Fe. All corresponding samples were flagged with an "N" according to CLP protocol.

7. All duplicate analyses were within the 20% RPD control limit.

WESTON

8. Quartetly Detection Limits for IC2 are included in this package.

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

10.1.91.
Date

pas\ clp-met.nar

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B00J01

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP121

Matrix (soil/water): WATER Lab Sample ID: 910312102

Level (low/med): LOW Date Received: 3/29/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	77.00	U		P
7440-36-0	Antimony	19.00	U		P
7440-38-2	Arsenic				NR
7440-39-3	Barium	5.00	U		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	228.00	B		P
7440-47-3	Chromium	3.00	U		P
7440-48-4	Cobalt	4.20	B		P
7440-50-8	Copper	34.40			P
7439-89-6	Iron	21000.00			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	84.00	U		P
7439-96-5	Manganese	52.90			P
7439-97-6	Mercury				NR
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	1010.00	U		P
7782-49-2	Selenium				NR
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	71.00	U		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	8.00	U		P
7440-66-6	Zinc	237.00			P
	Cyanide	40.00	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

0000009

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B00J03

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP121

Matrix (soil/water): WATER Lab Sample ID: 910312103

Level (low/med): LOW Date Received: 3/29/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	239.00			P
7440-36-0	Antimony	148.00			P
7440-38-2	Arsenic				NR
7440-39-3	Barium	9.30	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	370.00	B		P
7440-47-3	Chromium	4760.00			P
7440-48-4	Cobalt	8.60	B		P
7440-50-8	Copper	55.10			P
7439-89-6	Iron	11400.00			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	263.00	B		P
7439-96-5	Manganese	72.50			P
7439-97-6	Mercury				NR
7440-02-0	Nickel	21.20	B		P
7440-09-7	Potassium	1010.00	U		P
7782-49-2	Selenium				NR
7440-22-4	Silver	10.60		N	P
7440-23-5	Sodium	71.00	U		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	8.00	U		P
7440-66-6	Zinc	130.00			P
	Cyanide	40.00	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B00J04

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP121

Matrix (soil/water): WATER Lab Sample ID: 910312104

Level (low/med): LOW Date Received: 3/29/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	77.00	U		P
7440-36-0	Antimony	19.00	U		P
7440-38-2	Arsenic				NR
7440-39-3	Barium	5.00	U		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	120.00	B		P
7440-47-3	Chromium	3.10	B		P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	25.30			P
7439-89-6	Iron	12500.00			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	84.00	U		P
7439-96-5	Manganese	29.80			P
7439-97-6	Mercury				NR
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	1010.00	U		P
7782-49-2	Selenium				NR
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	71.00	U		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	8.00	U		P
7440-66-6	Zinc	144.00			P
	Cyanide	40.00	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

WESTON

Roy F. Weston, INC.
Lionville Laboratory

CLIENT:WESTINGHOUSE HANFORD SAMPLES RECEIVED:3/29/91
RFW #:9103L121
W.O.#:6168-02-01

METALS NARRATIVE

The set of samples consisted of (4) water samples collected on 3/28/91.

The samples were analyzed according to criteria set forth in CLP SOW 7/87.

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.

Note: The USEPA has dropped control limits for antimony and silver due to documented difficulties in obtaining reliable results. WESTON Analytics has adopted the same policy.

6. All matrix spike recoveries were within the 75-125% control limits with the exception of Ag and Fe. All corresponding samples were flagged with an "N" according to CLP protocol.

7. All duplicate analyses were within the 20% RPD control limit.

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

5 9 92
Date

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJOO

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP121

Matrix (soil/water):WATER Lab Sample ID:9103121001

Level (low/med): LOW Date Received:03/29/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	77.0	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	92.0	U		P
7440-47-3	Chromium	3.00	U		P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	20.8	B		P
7439-89-6	Iron	37.0	U	N	P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U		P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	71.0	U		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U		P
7440-66-6	Zinc	6.70	B		P
	Cyanide	20.0	U		C

Color Before:BROWN Clarity Before: Texture:FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

FORM I - IN

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B00J01

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP121

Matrix (soil/water):WATER Lab Sample ID:9103121002

Level (low/med): LOW Date Received:03/29/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	77.0	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	228	B		P
7440-47-3	Chromium	3.00	U		P
7440-48-4	Cobalt	4.20	B		P
7440-50-8	Copper	34.4			P
7439-89-6	Iron	21000		N	P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	52.9			P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	71.0	U		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U		P
7440-66-6	Zinc	237			P
	Cyanide	20.0	U		C

Color Before:BROWN Clarity Before: Texture:FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

FORM I - IN

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B00J03

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP121

Matrix (soil/water):WATER Lab Sample ID:9103121003

Level (low/med): LOW Date Received:03/29/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	239			P
7440-36-0	Antimony	148			P
7440-38-2	Arsenic				
7440-39-3	Barium	9.30	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	370	B		P
7440-47-3	Chromium	4760			P
7440-48-4	Cobalt	8.60	B		P
7440-50-8	Copper	55.1			P
7439-89-6	Iron	11400			P
7439-92-1	Lead				
7439-95-4	Magnesium	263	B		P
7439-96-5	Manganese	72.5			P
7439-97-6	Mercury				
7440-02-0	Nickel	21.2	B		P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	10.6		N	P
7440-23-5	Sodium	71.0	U		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U		P
7440-66-6	Zinc	130			P
	Cyanide	20.0	U		C

Color Before:BROWN Clarity Before: Texture:FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

FORM I - IN

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B00J04

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP121

Matrix (soil/water):WATER Lab Sample ID:9103121004

Level (low/med): LOW Date Received:03/29/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	77.0	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	120	B		P
7440-47-3	Chromium	3.10	B		P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	25.3			P
7439-89-6	Iron	12500		N	P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	29.8			P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	71.0	U		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U		P
7440-66-6	Zinc	144			P
	Cyanide	20.0	U		C

Color Before:BROWN Clarity Before: Texture:FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 03-29-91
RFW #: 9103L121
W.O. #: 6168-02-01

INORGANIC NARRATIVE

The following is a summary of the quality control results and a description of any problems encountered during the analysis of this batch of samples:

1. All sample holding times as required by 40CFR136 were met for water samples.

2. All preparation blanks were analyzed below the required detection limit.

3. All laboratory control standards (blank spikes) were within the control limits of 80-120%.

4. All calibration verification checks were within the required control limits of 90-110%. Calibration verification is performed using independent standards.

5. Replicate results are summarized on the Inorganic Precision report contained within this document. All results were within the 20% RPD guidance limit.

6. The analytical methods applied by the laboratory, unless otherwise requested, for all inorganic analyses are derived from the USEPA Method for Chemical Analysis of Water and Wastes (USEPA 600/4-79-020), and Standard Methods for the Examination of Water and Wastewater 16 ed. Methods for the analysis of solid samples are derived from Test Methods for Evaluating Solid Waste (USEPA SW846). Some samples have been analyzed by Method 300 modified for the analysis of organic liquids.

Jack R. Tuschall, PhD.
Laboratory Manager
Lionville Analytical Laboratory

5.6.91
Date

MAY 1991
RECEIVED
DATA RECEIPT

pas.21\i3-227

ROY F. WESTON
INORGANICS DATA SUMMARY REPORT
PHYSICAL TESTING OBSERVATIONS

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 03-29-91
RFW #: 9103L121 -001 thru -005
W.O. #: 6168-02-01

Analyte:	**Observation:**
Flashpoint (IFLSH)	Vapors began to burn at: 22.28° for sample -001 59.28° for sample -002 58.22° for sample -002R 29.28° for sample -003 59.22° for sample -004 Xylene was used to determine the accuracy of the flashpoint apparatus. The xylene will flash at 77°F. For this test, the xylene flashed at 76.34°F.

pas\pto121.pg2

4-5-95

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/06/91

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

WESTON BATCH #: 9103L121

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	B00J00	Chloride by IC	0.50 u	mg/L	0.50
		Fluoride by IC	1.0 u	mg/L	1.0
		Nitrite by IC	0.50 u	mg/L	0.50
		Nitrate by IC	0.50 u	mg/L	0.50
		Phosphate by IC	0.50 u	mg/L	0.50
		Sulfate by IC	0.50 u	mg/L	0.50
		Flash Point	22.3	DEG/F	20.0
-002	B00J01	Chloride by IC	0.50 u	mg/L	0.50
		Fluoride by IC	414	mg/L	100
		Nitrite by IC	0.50 u	mg/L	0.50
		Nitrate by IC	0.50 u	mg/L	0.50
		Phosphate by IC	0.50 u	mg/L	0.50
		Sulfate by IC	0.97	mg/L	0.50
		Flash Point	59.3	DEG/F	20.0
-003	B00J03	Chloride by IC	17.4	mg/L	0.50
		Fluoride by IC	11.6	mg/L	1.0
		Nitrite by IC	3.2	mg/L	0.50
		Nitrate by IC	7.6	mg/L	0.50
		Phosphate by IC	0.50 u	mg/L	0.50
		Sulfate by IC	9.2	mg/L	0.50
		Flash Point	29.3	DEG/F	20.0
-004	B00J04	Chloride by IC	0.50 u	mg/L	0.50
		Fluoride by IC	358	mg/L	100
		Nitrite by IC	0.50 u	mg/L	0.50
		Nitrate by IC	0.50 u	mg/L	0.50
		Phosphate by IC	0.50 u	mg/L	0.50
		Sulfate by IC	0.55	mg/L	0.50
		Flash Point	59.2	DEG/F	20.0

WESTON Analytics Use Only
9107L162

Custody Transfer Record/Lab Work Request

WESTON MANAGERS DESIGNERS CONSULTANTS

Client: Westinghouse Hanford
Est. Final Proj. Sampling Date:
Work Order #: 6168-02-01-0000
Project Contact/Phone #:
AD Project Manager: Josie King
QC: CLP Del: CLP TAT:
Date Rec'd: Date Due:
Account #: WS-HANFORD

Refrigerator #										5						
#/Type Container	Liquid															
	Solid															
Volume	Liquid															
	Solid															
Preservatives																
ANALYSES REQUESTED →		ORGANIC								INORG						
		VOA	BNA	Pest/PCB	Herb					Metal	CN					

MATRIX CODES:
S - Soil
SE - Sediment
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

Lab ID	Client ID/Description	Matrix QC Chosen (✓)	Matrix	Date Collected	Metal	CN	Delogged from RFW #
011	B00J18		DL	4-8-91	✓		9104L227-005
012	B00J11				✓		9104260-001
013	B00J17				✓		9104260-002
014	B00J12			4-10-91	✓		9104L268-001
015	B00J13				✓		-002
016	B00J14				✓		-003
017	B00J15				✓		-004
018	B00J19				✓		-005
019	B00J46			4-16-91	✓		9104L[illegible]-001
020	B00J47			4-16-91	✓		[illegible]

Special Instructions:
Metals = Se, Pb, Hg

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

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

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
Delogged	[signature]	7-15-91	11:00		P97/15/91		
	P97/15/91						

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

RFW 21-21-001/A-8/90 ✓ L372 ___ L373 ___ L375 ___ L377 ___ L378 Ref# n/a Cooler# n/a 381-596a

0000002A

WESTON Analytics Use Only

9107L162

Custody Transfer Record/Lab Work Request

WESTON MANAGERS DESIGNERS/CONSULTANTS

Client Westinghouse Hanford

Est. Final Proj. Sampling Date

Work Order # 6168-02-01-0000

Project Contact/Phone #

AD Project Manager Josie King

QC CLP Del CLP TAT

Date Rec'd Date Due

Account # WS-HANFORD

Refrigerator #										5						
#/Type Container	Liquid															
	Solid															
Volume	Liquid															
	Solid															
Preservatives																
ANALYSES REQUESTED →		ORGANIC								INORG						
		VOA	BNA	Pest/PCB	Herb					Metal	CN					

MATRIX CODES:
S - Soil
SE - Sediment
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

Lab ID	Client ID/Description	Matrix QC Chosen (✓)	Matrix	Date Collected	Metal	CN	Delogged from CFW #
021	B00J07		DL	4-22-91	✓		9104L382-001
022	B00J39			4-24-91	✓		9104L402-001
023	B00V48			4-24-91	✓		-002
024	B00V49			4-24-91	✓		-003
025	B00V50			4-24-91	✓		-004
026	B00V51			4-24-91	✓		-005
027	B00V52			4-30-91	✓		9105L462-001
028	B00V53			4-30-91	✓		-002
029	B00J45			4-22-91	✓		9104L382-002

Special Instructions:

* metals = Se, Pb, Hg

DATE/REVISIONS:

1.
2.
3.
4.
5.
6.

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___ Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) 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

Delogged

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
Delogged	[signature]	7-15-91	11:00		P97/15/91		
	P97/15/91						

Discrepancies Between Samples Labels and COC Record? Y or N

NOTES:

RFW 21-21-001/A-8/90 ✓ L372 ___ L373 ___ L375 ___ L377 ___ L378 Ref# n/a Cooler# n/a 381-596a

0000003

Custody Transfer Record/Lab Work Request

WESTON

WESTON Analytics Use Only: 91071162

Client: Westinghouse Hanford
Work Order: 96108-02-01
Date Rec'd: 7/15/91 Date Due: 7/29/91
RFW Contact:
Client Contact/Phone:

Refrigerator#											
#/Type Container											
Volume											
Preservative											
ANALYSES REQUESTED			Metals								

WA Use Only Lab ID	Client ID/Description	Matrix	Date Collected	see pg 3							
030	B00V55	W	4/30/91					91052463		002	
31	B00V56		⊥					⊥	⊥	003	
32	B00J08		4/2/91					91042464-		001	
33	B00J09	⊥	⊥	—				⊥	⊥	002	

Matrix:
S - Soil
SE - Sediment
SO - Solid
W - Water
O - Oil
A - Air
WI - Wipe
DS - Drum Solids
DL - Drum Liquids
F - Fish
L - EP/TCLP Leachate
X - Other

Special Instructions:

Item/Reason	Relinquished by	Received by	Date	Time	Item/Reason	Relinquished by	Received by	Date	Time
	[illegible]								
metals (30-33)		J. Jeffrey Webb	7/24/91	0930					
metals return	J. Jeffrey Webb		7/26/91	0900					

WESTON Analytics Use Only

Samples Were:
1 Shipped or Hand-Delivered
NOTES:

2 Ambient or Chilled
NOTES:

3 Received Broken/Leaking (Improperly Sealed)
Y N
NOTES:

4 Properly Preserved
Y N
NOTES:

5 Received Within Holding Times
Y N
NOTES:

COC Tape Was:
1 Present on Outer Package Y N
2 Unbroken on Outer Package Y N
3 Present on Sample Y N
4 Unbroken on Sample Y N
NOTES:

COC Record Was:
1 Present Upon Receipt of Samples Y N

Discrepancies Between Sample Labels and COC Record? Y N
NOTES:

RFW 21-21-001/A-12/88

7-115

0000004

WESTON Analytics Use Only

9107L 162

INS

Custody Transfer Record/Lab Work Request

- Metals yellow data Gene

WESTON MANAGERS DESIGNERS CONSULTANTS

Client: Westinghouse Hanford BE INS
Est. Final Proj. Sampling Date:
Work Order #: 6168-02-01-0000
Project Contact/Phone #:
AD Project Manager: Josie King
QC: CLP Del: CLP TAT: 2WK.
Date Rec'd: 7/15/91 Date Due: 7/29/91
Account #: ~~ENS~~ WS-HANFORD 09/09/91

Refrigerator #												5					
#/Type Container	Liquid											mostly 9 70 ml some 500 ml					
	Solid																
Volume	Liquid																
	Solid																
Preservatives																	
ANALYSES REQUESTED →		ORGANIC										INORG					
		VOA	BNA	Pest/PCB	Herb							Metal	CN				

MATRIX CODES:
S - Soil
SE - Sediment
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

Lab ID	Client ID/Description	Matrix QC Chosen (✓)	Matrix	Date Collected	Metal	Relogged from RFW#
001	B00HZ8		DL	3-25-91	✓	9103L075-001
002	B00HZ9		DL	3-25-91	✓	-002
003	B00J00			3-28-91	✓	9103L121-001
004	B00J01				✓	-002
005	B00J03				✓	-003
006	B00J04				✓	-004
007	B00J02			4-2-91	✓	9103L167-001
008	B00J05			4-2-91	✓	-002
009	B00J10			4-8-91	✓	9104L227-001
010	B00J16			4-8-91	✓	-003

See Below *

RAD 7/10/91

Special Instructions:
* Metals = Se, Pb, Hg
TAT = 2WK

DATE/REVISIONS:
7/23/91 1. 030-~~033~~ added per Gene
2. 9103L167 changed to 9104L167.
3.
4.
5.
6.

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) 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

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

Relinquished by	Received by	Date	Time
Relogged	[illegible] PG 7/15/91	7-15-91	11:00

Relinquished by	Received by	Date	Time
	PG	7/15/91	

RFW 21-21-001/A-8/90 ✓ L372 ___ L373 ___ L375 ___ ~~L377~~ ___ L378 Ref# N/A Cooler# N/A 381-596a

000002

JA

Roy F. Weston, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 7/15/91
RFW #: 9107L162
W.O. #: 6168-02-01

METALS NARRATIVE

The set of samples consisted of thirty-three (33) water samples collected on 3/25, 3/28, 4/2, 4/8, 4/10, 4/16, 4/22, 4/24 and 4/30/91.

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 Pb and Se. All corresponding samples were flagged with an "N" according to CLP protocol.

7. All duplicate analyses were within the 20% RPD control limit.

8. 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.

WESTON

9. 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).

10. Some lead results have dates prior to the preparation dates on the lab chron. This is due to the fact that these leads were analyzed before the samples were grouped into another prep batch to be analyzed for additional elements.

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

10.8.91.
Date

pas\ clp-met.nar

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/27/91

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

WESTON BATCH #: 9107L162

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-001	BOOHZ8	Mercury, Total	0.20	u	UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-002	BOOHZ9	Mercury, Total	0.20	u	UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-003	BOOJ00	Mercury, Total	0.20	u	UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-004	BOOJ01	Mercury, Total	2.7		UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-005	BOOJ03	Mercury, Total	1.9		UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-006	BOOJ04	Mercury, Total	2.3		UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-007	BOOJ02	Mercury, Total	0.88		UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-008	BOOJ05	Mercury, Total	1.4		UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-009	BOOJ10	Mercury, Total	0.20	u	UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-010	BOOJ16	Mercury, Total	0.20	u	UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/27/91

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

WESTON BATCH #: 9107L162

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-011	BOOJ18	Mercury, Total	1.6		UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-012	BOOJ11	Mercury, Total	3.2		UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-013	BOOJ17	Mercury, Total	1.1		UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-014	BOOJ12	Mercury, Total	1.3		UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-015	BOOJ13	Mercury, Total	1.6		UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-016	BOOJ14	Mercury, Total	0.67		UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-017	BOOJ15	Mercury, Total	2.2		UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-018	BOOJ19	Mercury, Total	0.20	u	UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-019	BOOJ46	Mercury, Total	0.20	u	UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-020	BOOJ47	Mercury, Total	1.6		UG/L	0.20
		Lead, Total	90.0	u	UG/L	90.0
		Selenium, Total	500	u	UG/L	500

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/27/91

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

WESTON BATCH #: 9107L162

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-021	BOOJ07	Mercury, Total	0.80		UG/L	0.20
		Lead, Total	90.0	u	UG/L	90.0
		Selenium, Total	500	u	UG/L	500
-022	BOOJ39	Mercury, Total	0.20	u	UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-023	BOOV48	Mercury, Total	0.20	u	UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-024	BOOV49	Mercury, Total	0.20	u	UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-025	BOOV50	Mercury, Total	0.20	u	UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-026	BOOV51	Mercury, Total	0.20	u	UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-027	BOOV52	Mercury, Total	0.20	u	UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-028	BOOV53	Mercury, Total	0.20	u	UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-029	BOOJ45	Mercury, Total	0.20	u	UG/L	0.20
		Lead, Total	90.0	u	MG/KG	90.0
		Selenium, Total	500	u	MG/KG	500
-030	BOOV55	Mercury, Total	0.20	u	UG/L	0.20
		Lead, Total	90.0	u	UG/L	90.0
		Selenium, Total	500	u	UG/L	500

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 09/27/91

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

WESTON BATCH #: 9107L162

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-031	BOOV56	Mercury, Total	0.20	u	UG/L	0.20
		Lead, Total	90.0	u	UG/L	90.0
		Selenium, Total	500	u	UG/L	500
-032	BOOJ08	Mercury, Total	0.20	u	UG/L	0.20
		Lead, Total	90.0	u	UG/L	90.0
		Selenium, Total	500	u	UG/L	500
-033	BOOJ09	Mercury, Total	0.20	u	UG/L	0.20
		Lead, Total	90.0	u	UG/L	90.0
		Selenium, Total	500	u	UG/L	500

ROY F. WESTON INC.

INORGANICS PRECISION REPORT 09/27/91

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

WESTON BATCH #: 9107L162

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	% DIFF
-001REP	BOOHZ8	Mercury, TOT	0.20u	0.20u	NC
		Lead, Total	90.0 u	90.0 u	NC
		Selenium, Total	500 u	500 u	NC
-002REP	BOOHZ9	Mercury, TOT	0.20u	0.20u	NC
-009REP	BOOJ10	Lead, Total	90.0 u	90.0 u	NC
		Selenium, Total	500 u	500 u	NC
-030REP	BOOV55	Mercury, TOT	0.20u	0.20u	NC

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOHZ8

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716201

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOHZ9

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716202

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.12	B		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ00

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716203

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ01

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716204

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	2.67			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ02

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716207

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.88			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	79.40	B	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ03

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716205

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	1.95			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ04

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716206

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	2.29			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ05

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716208

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	1.43			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ07

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716221

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.80			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ08

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716232

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00		N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ09

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716233

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ10

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716209

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	93.40		N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ11

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716212

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	3.24			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ12

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716214

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	1.30			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ13

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716215

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	1.57			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ14

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716216

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.67			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ15

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716217

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	2.18			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ16

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716210

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ17

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716213

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	1.07			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORELES Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ18

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716211

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	1.62			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ19

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716218

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ39

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716222

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ45

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716229

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.16	B		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ46

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716219

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ47

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716220

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	1.60			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV48

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716223

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV49

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716224

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV50

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716225

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV51

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716226

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	77.50		N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.18	B		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV52

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716227

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.16	B		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV53

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716228

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV55

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716230

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	23.30	B	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV56

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

Lab Code: WESTON Case No.: SAS No.: SDG No.: CLP162

Matrix (soil/water): WATER Lab Sample ID: 910716231

Level (low/med): LOW Date Received: 7/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.00	U	N	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	41.00	U	N	P
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

VALIDATION SUMMARY

9103L121-WES-020

Westinghouse
Hanford Company

OSM ORGANIC DATA ASSESSMENT

DATE 7-20-91

REVIEWED BY C.J. Sumpelle

LABORATORY Roy F. Weston

CASE #

SDG # 9103L121

SAMPLES/MATRIX B00J00 - organic liquids

B00J01

B00J03

B00J04

B00J06

DATA ASSESSMENT SUMMARY

	VOA	ABN	~~PEST~~ PCB
1. Holding Times (Form I)	O	X	O
2. Surrogate Recovery (II)	O	O	O
3. Matrix Spike/ MSD (III)	O	X	O
4. Blanks (IV)	X	O	O
5. GC/MS Tune (V)	O	O	
6. Calibration (VI-VII; VIII pest)	O	O	X
7. Internal Standards (VIII)	O	X	
8. Instr. Perform. (IX pest)			X
9. Other ( )	O	O	O

O = data had no problems
X = data qualified due to minor problems
M = data qualified due to major problems, some data may be unusable

OVERALL ASSESSMENT: Good, minor problems occurred in the VOA, semi-VOA and PCB data.

NOTES : BNA - Samples had to be re-extracted due contaminants introduced into original extracts (11 constituents affected)

Refer to the corresponding attachments for explanation of any problems.

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

RFW Batch Number: 9103L121 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 05/03/91 14:51 Page: 1a

	Cust ID:	B00J00		B00J01		B00J03		B00J04		B00J04		B00J04	
Sample Information	RFW#:	001		002		003		004		004 MS		004 MSD	
	Matrix:	DRUM		DRUM		DRUM		DRUM		DRUM		DRUM	
	D.F.:	6250		62500		1250		62500		62500		62500	
	Units:	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
	Level:	MED		MED		MED		MED		MED		MED	
Surrogate Recovery	Toluene-d8	D	%	D	%	D	%	D	%	D	%	D	%
	Bromofluorobenzene	D	%	D	%	D	%	D	%	D	%	D	%
	1,2-Dichloroethane-d4	D	%	D	%	D	%	D	%	D	%	D	%
			fl		fl		fl		fl		fl		fl
Chloromethane		6200000	U	0.62E+08	U	1200000	U	0.62E+08	U	0.62E+08	U	0.62E+08	U
Bromomethane		6200000	U	0.62E+08	U	1200000	U	0.62E+08	U	0.62E+08	U	0.62E+08	U
Vinyl Chloride		6200000	U	0.62E+08	U	1200000	U	0.62E+08	U	0.62E+08	U	0.62E+08	U
Chloroethane		6200000	U	0.62E+08	U	1200000	U	0.62E+08	U	0.62E+08	U	0.62E+08	U
Methylene Chloride		8800000	B	0.17E+09	B	3500000	B	0.15E+09	B	0.60E+08	B	0.91E+08	B
Acetone		0.11E+08	B	0.19E+09	B	4000000	B	0.17E+09	B	0.11E+09	B	0.12E+09	B
Carbon Disulfide		3100000	U	0.31E+08	U	620000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U
1,1-Dichloroethene		3100000	U	0.31E+08	U	620000	U	0.31E+08	U	83	%	80	%
1,1-Dichloroethane		3100000	U	0.31E+08	U	620000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U
1,2-Dichloroethene (total)		3100000	U	0.31E+08	U	620000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U
Chloroform		3100000	U	0.31E+08	U	620000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U
1,2-Dichloroethane		3100000	U	0.31E+08	U	620000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U
2-Butanone		6200000	U	0.62E+08	U	1200000	U	0.62E+08	U	0.62E+08	U	0.62E+08	U
1,1,1-Trichloroethane		3100000	U	0.31E+08	U	620000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U
Carbon Tetrachloride		3100000	U	0.31E+08	U	620000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U
Vinyl Acetate		6200000	U	0.62E+08	U	1200000	U	0.62E+08	U	0.62E+08	U	0.62E+08	U
Bromodichloromethane		3100000	U	0.31E+08	U	620000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U
1,2-Dichloropropane		3100000	U	0.31E+08	U	620000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U
cis-1,3-Dichloropropene		3100000	U	0.31E+08	U	620000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U
Trichloroethene		3100000	U	0.31E+08	U	620000	U	0.31E+08	U	96	%	93	%
Dibromochloromethane		3100000	U	0.31E+08	U	620000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U
1,1,2-Trichloroethane		3100000	U	0.31E+08	U	620000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U
Benzene		3100000	U	0.31E+08	U	620000	U	0.31E+08	U	99	%	99	%
Trans-1,3-Dichloropropene		3100000	U	0.31E+08	U	620000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U
Bromoform		3100000	U	0.31E+08	U	620000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U
4-Methyl-2-pentanone		3500000	J	0.93E+09		0.11E+08		0.11E+10		0.92E+09		0.95E+09	
2-Hexanone		6200000	U	0.62E+08	U	1200000	U	0.62E+08	U	0.62E+08	U	0.62E+08	U
Tetrachloroethene		3100000	U	0.31E+08	U	620000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U
1,1,2,2-Tetrachloroethane		3100000	U	0.31E+08	U	620000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U

*= Outside of EPA CLP QC limits.

Cust ID:	B00J00	B00J01	B00J03	B00J04	B00J04	B00J04
RFW#:	001	002	003	004	004 MS	004 MSD
Level:	MED	MED	MED	MED	MED	MED
Toluene	2700000 J	0.31E+08 U	4200000	0.31E+08 U	99 %	102 %
Chlorobenzene	3100000 U	0.31E+08 U	620000 U	0.31E+08 U	93 %	96 %
Ethylbenzene	3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U
Styrene	3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U
Xylene (total)	3100000 U	0.31E+08 U	620000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U

*= Outside of EPA CLP QC limits.

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

RFW Batch Number: 9103L121 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 05/03/91 14:51 Page: 2a

	Cust ID:	B00J06		VBLK		VBLK		VBLK		VBLK	
Sample Information	RFW#:	005		91LVX051-MB1		91LVX050-MB1		91LVX052-MB1		91LVW052-MB1	
	Matrix:	WATER		SOIL		SOIL		SOIL		WATER	
	D.F.:	1.00		1.25		1.25		1.25		1.00	
	Units:	ug/L		ug/Kg		ug/Kg		ug/Kg		ug/L	
	Level:	LOW		MED		MED		MED		LOW	
Surrogate Recovery	Toluene-d8	100	%	103	%	98	%	97	%	99	%
	Bromofluorobenzene	104	%	98	%	96	%	99	%	98	%
	1,2-Dichloroethane-d4	114	%	99	%	97	%	101.	%	101	%
Chloromethane		10	U	1200	U	1200	U	1200	U	10	U
Bromomethane		10	U	1200	U	1200	U	1200	U	10	U
Vinyl Chloride		10	U	1200	U	1200	U	1200	U	10	U
Chloroethane		10	U	1200	U	1200	U	1200	U	10	U
Methylene Chloride		43	B u	2300		1600		2000		10	
Acetone		8	JB u	3100		2900		2500		16	
Carbon Disulfide		5	U	620	U	620	U	620	U	5	U
1,1-Dichloroethene		5	U	620	U	620	U	620	U	5	U
1,1-Dichloroethane		5	U	620	U	620	U	620	U	5	U
1,2-Dichloroethene (total)		5	U	620	U	620	U	620	U	5	U
Chloroform		5	U	620	U	620	U	620	U	5	U
1,2-Dichloroethane		5	U	620	U	620	U	620	U	5	U
2-Butanone		10	U	1200	U	1200	U	1200	U	10	U
1,1,1-Trichloroethane		5	U	620	U	620	U	620	U	5	U
Carbon Tetrachloride		5	U	620	U	620	U	620	U	5	U
Vinyl Acetate		10	U	1200	U	1200	U	1200	U	10	U
Bromodichloromethane		5	U	620	U	620	U	620	U	5	U
1,2-Dichloropropane		5	U	620	U	620	U	620	U	5	U
cis-1,3-Dichloropropene		5	U	620	U	620	U	620	U	5	U
Trichloroethene		5	U	620	U	620	U	620	U	5	U
Dibromochloromethane		5	U	620	U	620	U	620	U	5	U
1,1,2-Trichloroethane		5	U	620	U	620	U	620	U	5	U
Benzene		5	U	620	U	620	U	620	U	5	U
Trans-1,3-Dichloropropene		5	U	620	U	620	U	620	U	5	U
Bromoform		5	U	620	U	620	U	620	U	5	U
4-Methyl-2-pentanone		7	J	1200	U	1200	U	1200	U	10	U
2-Hexanone		10	U	1200	U	1200	U	1200	U	10	U
Tetrachloroethene		5	U	620	U	620	U	620	U	5	U
1,1,2,2-Tetrachloroethane		5	U	620	U	620	U	620	U	5	U

*= Outside of EPA CLP QC limits.

7-20-91
W Sumeli

Cust ID:	B00J06	VBLK	VBLK	VBLK	VBLK
RFW#:	005	91LVX051-MB1	91LVX050-MB1	91LVX052-MB1	91LVW052-MB1
Level:	LOW	MED	MED	MED	LOW
Toluene	5 U	620 U	620 U	620 U	5 U
Chlorobenzene	5 U	620 U	620 U	620 U	5 U
Ethylbenzene	5 U	620 U	620 U	620 U	5 U
Styrene	5 U	620 U	620 U	620 U	5 U
Xylene (total)	5 U	620 U	620 U	620 U	5 U

*= Outside of EPA CLP QC limits.

000007

1A

VOLATILE ORGANICS ANALYSIS SHEET 0000025

CLIENT SAMPLE NO.

BOOJOO

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9103L121-001

Sample wt/vol: 4.00 (g/mL) G Lab File ID: AX4408

Level: (low/med) MED Date Received: 03/29/91

% Moisture: not dec. 0 Date Analyzed: 04/04/91

Column: (pack/cap) CAP Dilution Factor: 6250

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	6200000	U
74-83-9	Bromomethane	6200000	U
75-01-4	Vinyl Chloride	6200000	U
75-00-3	Chloroethane	6200000	U
75-09-2	Methylene Chloride	8800000	B
67-64-1	Acetone	0.11E+08	B
75-15-0	Carbon Disulfide	3100000	U
75-35-4	1,1-Dichloroethene	3100000	U
75-34-3	1,1-Dichloroethane	3100000	U
540-59-0	1,2-Dichloroethene (total)	3100000	U
67-66-3	Chloroform	3100000	U
107-06-2	1,2-Dichloroethane	3100000	U
78-93-3	2-Butanone	6200000	U
71-55-6	1,1,1-Trichloroethane	3100000	U
56-23-5	Carbon Tetrachloride	3100000	U
108-05-4	Vinyl Acetate	6200000	U
75-27-4	Bromodichloromethane	3100000	U
78-87-5	1,2-Dichloropropane	3100000	U
10061-01-5	cis-1,3-Dichloropropene	3100000	U
79-01-6	Trichloroethene	3100000	U
124-48-1	Dibromochloromethane	3100000	U
79-00-5	1,1,2-Trichloroethane	3100000	U
71-43-2	Benzene	3100000	U
10061-02-6	Trans-1,3-Dichloropropene	3100000	U
75-25-2	Bromoform	3100000	U
108-10-1	4-Methyl-2-pentanone	3500000	J
591-78-6	2-Hexanone	6200000	U
127-18-4	Tetrachloroethene	3100000	U
79-34-5	1,1,2,2-Tetrachloroethane	3100000	U
108-88-3	Toluene	2700000	J
108-90-7	Chlorobenzene	3100000	U
100-41-4	Ethylbenzene	3100000	U
100-42-5	Styrene	3100000	U
1330-20-7	Xylene (total)	3100000	U

1E

VOLATILE ORGANICS ANALYSIS SHEET 0000026
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

BOOJOO

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-001

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4408

Level: (low/med) MED

Date Received: 03/29/91

% Moisture: not dec. 0

Date Analyzed: 04/04/91

Column: (pack/cap) CAP

Dilution Factor: 6250

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	HYDROCARBON	10.98	400000000	J

1A

VOLATILE ORGANICS ANALYSIS SHEET 000036

CLIENT SAMPLE NO.

B00J01

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-002

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4308

Level: (low/med) MED

Date Received: 03/29/91

% Moisture: not dec. 0

Date Analyzed: 04/03/91

Column: (pack/cap) PACK

Dilution Factor: 62500

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	0.62E+08	U
74-83-9	Bromomethane	0.62E+08	U
75-01-4	Vinyl Chloride	0.62E+08	U
75-00-3	Chloroethane	0.62E+08	U
75-09-2	Methylene Chloride	0.17E+09	B
67-64-1	Acetone	0.19E+09	B
75-15-0	Carbon Disulfide	0.31E+08	U
75-35-4	1,1-Dichloroethene	0.31E+08	U
75-34-3	1,1-Dichloroethane	0.31E+08	U
540-59-0	1,2-Dichloroethene (total)	0.31E+08	U
67-66-3	Chloroform	0.31E+08	U
107-06-2	1,2-Dichloroethane	0.31E+08	U
78-93-3	2-Butanone	0.62E+08	U
71-55-6	1,1,1-Trichloroethane	0.31E+08	U
56-23-5	Carbon Tetrachloride	0.31E+08	U
108-05-4	Vinyl Acetate	0.62E+08	U
75-27-4	Bromodichloromethane	0.31E+08	U
78-87-5	1,2-Dichloropropane	0.31E+08	U
10061-01-5	cis-1,3-Dichloropropene	0.31E+08	U
79-01-6	Trichloroethene	0.31E+08	U
124-48-1	Dibromochloromethane	0.31E+08	U
79-00-5	1,1,2-Trichloroethane	0.31E+08	U
71-43-2	Benzene	0.31E+08	U
10061-02-6	Trans-1,3-Dichloropropene	0.31E+08	U
75-25-2	Bromoform	0.31E+08	U
108-10-1	4-Methyl-2-pentanone	0.93E+09	
591-78-6	2-Hexanone	0.62E+08	U
127-18-4	Tetrachloroethene	0.31E+08	U
79-34-5	1,1,2,2-Tetrachloroethane	0.31E+08	U
108-88-3	Toluene	0.31E+08	U
108-90-7	Chlorobenzene	0.31E+08	U
100-41-4	Ethylbenzene	0.31E+08	U
100-42-5	Styrene	0.31E+08	U
1330-20-7	Xylene (total)	0.31E+08	U

1E

VOLATILE ORGANICS ANALYSIS SHEET 0000037

TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B00J01

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-002

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4308

Level: (low/med) MED

Date Received: 03/29/91

% Moisture: not dec. 0

Date Analyzed: 04/03/91

Column: (pack/cap) PACK

Dilution Factor: 62500

Number TICs found: 0

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

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

1A

VOLATILE ORGANICS ANALYSIS SHEET 000044

CLIENT SAMPLE NO.

B00J03

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-003

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4509

Level: (low/med) MED

Date Received: 03/29/91

% Moisture: not dec. 0

Date Analyzed: 04/05/91

Column: (pack/cap) CAP

Dilution Factor: 1250

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	1200000	U
74-83-9	Bromomethane	1200000	U
75-01-4	Vinyl Chloride	1200000	U
75-00-3	Chloroethane	1200000	U
75-09-2	Methylene Chloride	3500000	B
67-64-1	Acetone	4000000	B
75-15-0	Carbon Disulfide	620000	U
75-35-4	1,1-Dichloroethene	620000	U
75-34-3	1,1-Dichloroethane	620000	U
540-59-0	1,2-Dichloroethene (total)	620000	U
67-66-3	Chloroform	620000	U
107-06-2	1,2-Dichloroethane	620000	U
78-93-3	2-Butanone	1200000	U
71-55-6	1,1,1-Trichloroethane	620000	U
56-23-5	Carbon Tetrachloride	620000	U
108-05-4	Vinyl Acetate	1200000	U
75-27-4	Bromodichloromethane	620000	U
78-87-5	1,2-Dichloropropane	620000	U
10061-01-5	cis-1,3-Dichloropropene	620000	U
79-01-6	Trichloroethene	620000	U
124-48-1	Dibromochloromethane	620000	U
79-00-5	1,1,2-Trichloroethane	620000	U
71-43-2	Benzene	620000	U
10061-02-6	Trans-1,3-Dichloropropene	620000	U
75-25-2	Bromoform	620000	U
108-10-1	4-Methyl-2-pentanone	0.11E+08	
591-78-6	2-Hexanone	1200000	U
127-18-4	Tetrachloroethene	620000	U
79-34-5	1,1,2,2-Tetrachloroethane	620000	U
108-88-3	Toluene	4200000	
108-90-7	Chlorobenzene	620000	U
100-41-4	Ethylbenzene	620000	U
100-42-5	Styrene	620000	U
1330-20-7	Xylene (total)	620000	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS 0000045

CLIENT SAMPLE NO.

B00J03

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-003

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4509

Level: (low/med) MED

Date Received: 03/29/91

% Moisture: not dec. 0

Date Analyzed: 04/05/91

Column: (pack/cap) CAP

Dilution Factor: 1250

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CYCLOALKANE	8.22	20000000	J
2.	UNKNOWN	11.07	300000000	J
3.	C8 HYDROCARBON	13.44	700000	J
4.	CYCLOALKANE	15.699	2000000	J

1A
VOLATILE ORGANICS ANALYSIS SHEET 0000059

CLIENT SAMPLE NO.

B00J04

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-004

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4309

Level: (low/med) MED

Date Received: 03/29/91

% Moisture: not dec. 0

Date Analyzed: 04/03/91

Column: (pack/cap) PACK

Dilution Factor: 62500

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	0.62E+08	U
74-83-9	Bromomethane	0.62E+08	U
75-01-4	Vinyl Chloride	0.62E+08	U
75-00-3	Chloroethane	0.62E+08	U
75-09-2	Methylene Chloride	0.15E+09	B
67-64-1	Acetone	0.17E+09	B
75-15-0	Carbon Disulfide	0.31E+08	U
75-35-4	1,1-Dichloroethene	0.31E+08	U
75-34-3	1,1-Dichloroethane	0.31E+08	U
540-59-0	1,2-Dichloroethene (total)	0.31E+08	U
67-66-3	Chloroform	0.31E+08	U
107-06-2	1,2-Dichloroethane	0.31E+08	U
78-93-3	2-Butanone	0.62E+08	U
71-55-6	1,1,1-Trichloroethane	0.31E+08	U
56-23-5	Carbon Tetrachloride	0.31E+08	U
108-05-4	Vinyl Acetate	0.62E+08	U
75-27-4	Bromodichloromethane	0.31E+08	U
78-87-5	1,2-Dichloropropane	0.31E+08	U
10061-01-5	cis-1,3-Dichloropropene	0.31E+08	U
79-01-6	Trichloroethene	0.31E+08	U
124-48-1	Dibromochloromethane	0.31E+08	U
79-00-5	1,1,2-Trichloroethane	0.31E+08	U
71-43-2	Benzene	0.31E+08	U
10061-02-6	Trans-1,3-Dichloropropene	0.31E+08	U
75-25-2	Bromoform	0.31E+08	U
108-10-1	4-Methyl-2-pentanone	0.11E+10	
591-78-6	2-Hexanone	0.62E+08	U
127-18-4	Tetrachloroethene	0.31E+08	U
79-34-5	1,1,2,2-Tetrachloroethane	0.31E+08	U
108-88-3	Toluene	0.31E+08	U
108-90-7	Chlorobenzene	0.31E+08	U
100-41-4	Ethylbenzene	0.31E+08	U
100-42-5	Styrene	0.31E+08	U
1330-20-7	Xylene (total)	0.31E+08	U

1E

VOLATILE ORGANICS ANALYSIS SHEET 0000059
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B00J04

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-004

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4309

Level: (low/med) MED

Date Received: 03/29/91

% Moisture: not dec. 0

Date Analyzed: 04/03/91

Column: (pack/cap) PACK

Dilution Factor: 62500

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	10.96	30000000	J

1A

VOLATILE ORGANICS ANALYSIS SHEET 0000068

CLIENT SAMPLE NO.

B00J06

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L121-005

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

Lab File ID: W040517

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. _____

Date Analyzed: 04/05/91

Column: (pack/cap) PACK

Dilution Factor: 1.00

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

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	43	B U
67-64-1	Acetone	8	JB 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	7	J
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

7-20-91
W Simpkins

1E

VOLATILE ORGANICS ANALYSIS SHEET 0000069

TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B00J06

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L121-005

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

Lab File ID: W040517

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. _____

Date Analyzed: 04/05/91

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

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

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

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

RFW Batch Number: 9103L121 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 05/16/91 14:45 Page: 1a

	Cust ID:	B00J00		B00J00		B00J01		B00J01		B00J03		B00J03	
Sample Information	RFW#:	001		001		002		002		003		003	
	Matrix:	DRUM		DRUM		DRUM		DRUM		DRUM		DRUM	
	D.F.:	100		100		100		100		100		100	
	Units:	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
				REPREP				REPREP				REPREP	
Surrogate Recovery	Nitrobenzene-d5	68	%	85	%	66	%	82	%	80	%	85	%
	2-Fluorobiphenyl	103	%	77	%	107	%	75	%	90	%	76	%
	p-Terphenyl-d14	111	%	86	%	110	%	77	%	136	%	86	%
	Phenol-d5	69	%	73	%	69	%	69	%	82	%	72	%
	2-Fluorophenol	79	%	69	%	81	%	64	%	93	%	66	%
	2,4,6-Tribromophenol	102	%	71	%	85	%	70	%	64	%	69	%
			fl		fl		fl		fl		fl		fl
Phenol		0.0	NR	910000	U	0.0	NR	1000000	U	0.0	NR	1000000	U
bis(2-Chloroethyl)ether		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
2-Chlorophenol		0.0	NR	910000	U	0.0	NR	1000000	U	0.0	NR	1000000	U
1,3-Dichlorobenzene		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
1,4-Dichlorobenzene		0.0	NR	910000	U	0.0	NR	1000000	U	0.0	NR	1000000	U
Benzyl alcohol		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
1,2-Dichlorobenzene		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
2-Methylphenol		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
bis(2-Chloroisopropyl)ether		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
4-Methylphenol		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
N-Nitroso-Di-n-propylamine		0.0	NR	910000	U	0.0	NR	1000000	U	0.0	NR	1000000	U
Hexachloroethane		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
Nitrobenzene		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
Isophorone		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
2-Nitrophenol		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
2,4-Dimethylphenol		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
Benzoic acid		6200000	U	4500000	U	6200000	U	5000000	U	6200000	U	5000000	U
bis(2-Chloroethoxy)methane		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
2,4-Dichlorophenol		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
1,2,4-Trichlorobenzene		0.0	NR	910000	U	0.0	NR	1000000	U	0.0	NR	1000000	U
Naphthalene		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
4-Chloroaniline		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
Hexachlorobutadiene		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
4-Chloro-3-methylphenol		0.0	NR	910000	U	0.0	NR	1000000	U	0.0	NR	1000000	U
2-Methylnaphthalene		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U
Hexachlorocyclopentadiene		1200000	U	910000	U	1200000	U	1000000	U	1200000	U	1000000	U

*= Outside of EPA CLP QC limits.

Cust ID:	B00J00	B00J00	B00J01	B00J01	B00J03	B00J03
RFW#:	001	001 REPREP	002	002 REPREP	003	003 REPREP
2,4,6-Trichlorophenol	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
2,4,5-Trichlorophenol	6200000 U	4500000 U	6200000 U	5000000 U	6200000 U	5000000 U
2-Chloronaphthalene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
2-Nitroaniline	6200000 U	4500000 U	6200000 U	5000000 U	6200000 U	5000000 U
Dimethylphthalate	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Acenaphthylene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
2,6-Dinitrotoluene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
3-Nitroaniline	6200000 U	4500000 U	6200000 U	5000000 U	6200000 U	5000000 U
Acenaphthene	0.0 NR	910000 U	0.0 NR	1000000 U	0.0 NR	1000000 U
2,4-Dinitrophenol	6200000 U	4500000 U	6200000 U	5000000 U	6200000 U	5000000 U
4-Nitrophenol	0.0 NR	4500000 U	6200000 U	5000000 U	6200000 U	5000000 U
Dibenzofuran	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
2,4-Dinitrotoluene	0.0 NR	910000 U	0.0 NR	1000000 U	0.0 NR	1000000 U
Diethylphthalate	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
4-Chlorophenyl-phenylether	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Fluorene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
4-Nitroaniline	6200000 U	4500000 U	6200000 U	5000000 U	6200000 U	5000000 U
4,6-Dinitro-2-methylphenol	6200000 U	4500000 U	6200000 U	5000000 U	6200000 U	5000000 U
N-Nitrosodiphenylamine (1)	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
4-Bromophenyl-phenylether	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Hexachlorobenzene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Pentachlorophenol	0.0 NR	4500000 U	0.0 NR	5000000 U	0.0 NR	5000000 U
Phenanthrene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Anthracene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Di-n-Butylphthalate	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Fluoranthene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Pyrene	0.0 NR	910000 U	0.0 NR	1000000 U	0.0 NR	1000000 U
Butylbenzylphthalate	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
3,3'-Dichlorobenzidine	2500000 U	1800000 U	2500000 U	2000000 U	2500000 U	2000000 U
Benzo(a)anthracene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Chrysene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
bis(2-Ethylhexyl)phthalate	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Di-n-Octyl phthalate	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Benzo(b)fluoranthene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Benzo(k)fluoranthene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Benzo(a)pyrene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Indeno(1,2,3-cd)pyrene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Dibenzo(a,h)anthracene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Benzo(g,h,i)perylene	1200000 U	910000 U	1200000 U	1000000 U	1200000 U	1000000 U
Tributylphosphate	1200000 U	910000 U	1200000 U	170000 J	1200000 U	1000000 U

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

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

RFW Batch Number: 9103L121 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 05/16/91 14:45 Page: 2a

	Cust ID:	B00J04	B00J04	B00J04	B00J04	SBLK	SBLK BS
Sample Information	RFW#:	004	004	004 MS	004 MSD	91LE0441-MB1	91LE0441-MB1
	Matrix:	DRUM	DRUM	DRUM	DRUM	SOIL	SOIL
	D.F.:	100	100	100	100	100	100
	Units:	ug/Kg	ug/Kg REPREP	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Nitrobenzene-d5	76 %	85 %	80 %	80 %	73 %	70 %
	2-Fluorobiphenyl	93 %	76 %	92 %	93 %	102 %	104 %
	p-Terphenyl-d14	128 %	81 %	125 %	122 %	110 %	117 %
	Phenol-d5	79 %	71 %	87 %	86 %	64 %	55 %
	2-Fluorophenol	92 %	66 %	97 %	94 %	63 %	51 %
	2,4,6-Tribromophenol	62 %	63 %	63 %	65 %	133 * %	119 %
Phenol		0.0 NR	1000000 U UJ	103 * %	107 * %	0.0 NR	80 %
bis(2-Chloroethyl)ether		1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
2-Chlorophenol		0.0 NR	1000000 U UJ	92 %	93 %	0.0 NR	88 %
1,3-Dichlorobenzene		1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
1,4-Dichlorobenzene		0.0 NR	1000000 U UJ	96 %	96 %	0.0 NR	96 %
Benzyl alcohol		1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
1,2-Dichlorobenzene		1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
2-Methylphenol		1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
bis(2-Chloroisopropyl)ether		1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
4-Methylphenol		1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
N-Nitroso-Di-n-propylamine		0.0 NR	1000000 U UJ	81 %	81 %	0.0 NR	62 %
Hexachloroethane		1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Nitrobenzene		1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Isophorone		1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
2-Nitrophenol		1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
2,4-Dimethylphenol		1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Benzoic acid		6200000 U	5000000 U	6200000 U	6200000 U	5000000 U	5000000 U
bis(2-Chloroethoxy)methane		1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
2,4-Dichlorophenol		1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
1,2,4-Trichlorobenzene		0.0 NR	1000000 U UJ	97 %	97 %	0.0 NR	149 * %
Naphthalene		1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
4-Chloroaniline		1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Hexachlorobutadiene		1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
4-Chloro-3-methylphenol		0.0 NR	1000000 U	87 %	90 %	0.0 NR	75 %
2-Methylnaphthalene		1200000 U	1000000 U UJ	1200000 U	1200000 U	1000000 U	1000000 U
Hexachlorocyclopentadiene		1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U

*= Outside of EPA CLP QC limits.

7-20-91
W Simpiele

Cust ID:	B00J04	B00J04	B00J04	B00J04	SBLK	SBLK BS
RFW#:	004	004 REPREP	004 MS	004 MSD	91LE0441-MB1	91LE0441-MB1
2,4,6-Trichlorophenol	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
2,4,5-Trichlorophenol	6200000 U	5000000 U	6200000 U	6200000 U	5000000 U	5000000 U
2-Chloronaphthalene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
2-Nitroaniline	6200000 U	5000000 U	6200000 U	6200000 U	5000000 U	5000000 U
Dimethylphthalate	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Acenaphthylene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
2,6-Dinitrotoluene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
3-Nitroaniline	6200000 U	5000000 U	6200000 U	6200000 U	5000000 U	5000000 U
Acenaphthene	0.0 NR	1000000 UUJ	103 %	106 %	0.0 NR	126 %
2,4-Dinitrophenol	6200000 U	5000000 U	6200000 U	6200000 U	5000000 U	5000000 U
4-Nitrophenol	0.0 NR	5000000 UUJ	69 %	71 %	5000000 U	72 %
Dibenzofuran	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
2,4-Dinitrotoluene	0.0 NR	1000000 UUJ	91 * %	95 * %	0.0 NR	94 * %
Diethylphthalate	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
4-Chlorophenyl-phenylether	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Fluorene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
4-Nitroaniline	6200000 U	5000000 U	6200000 U	6200000 U	5000000 U	5000000 U
4,6-Dinitro-2-methylphenol	6200000 U	5000000 U	6200000 U	6200000 U	5000000 U	5000000 U
N-Nitrosodiphenylamine (1)	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
4-Bromophenyl-phenylether	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Hexachlorobenzene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Pentachlorophenol	0.0 NR	5000000 UUJ	102 %	102 %	0.0 NR	186 * %
Phenanthrene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Anthracene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Di-n-Butylphthalate	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Fluoranthene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Pyrene	0.0 NR	1000000 UUJ	154 * %	151 * %	0.0 NR	129 %
Butylbenzylphthalate	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
3,3'-Dichlorobenzidine	2500000 U	2000000 U	2500000 U	2500000 U	2000000 U	2000000 U
Benzo(a)anthracene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Chrysene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
bis(2-Ethylhexyl)phthalate	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Di-n-Octyl phthalate	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Benzo(b)fluoranthene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Benzo(k)fluoranthene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Benzo(a)pyrene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Indeno(1,2,3-cd)pyrene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Dibenzo(a,h)anthracene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Benzo(g,h,i)perylene	1200000 U	1000000 U	1200000 U	1200000 U	1000000 U	1000000 U
Tributylphosphate	370000 J	300000 J	500000 J	570000 J	1000000 U	1000000 U

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

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

RFW Batch Number: 9103L121 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 05/16/91 14:45 Page: 3a

	Cust ID:	SBLK		SBLK BS		SBLK BSD	
Sample Information	RFW#:	91LE0588-MB1		91LE0588-MB1		91LE0588-MB1	
	Matrix:	SOIL		SOIL		SOIL	
	D.F.:	100		100		100	
	Units:	ug/Kg		ug/Kg		ug/Kg	
Surrogate Recovery	Nitrobenzene-d5	73	%	87	%	91	%
	2-Fluorobiphenyl	72	%	76	%	81	%
	p-Terphenyl-d14	82	%	88	%	93	%
	Phenol-d5	77	%	75	%	79	%
	2-Fluorophenol	71	%	70	%	75	%
	2,4,6-Tribromophenol	60	%	75	%	85	%
Phenol		1000000	U	65	%	68	%
bis(2-Chloroethyl)ether		1000000	U	1000000	U	1000000	U
2-Chlorophenol		1000000	U	67	%	71	%
1,3-Dichlorobenzene		1000000	U	1000000	U	1000000	U
1,4-Dichlorobenzene		1000000	U	75	%	80	%
Benzyl alcohol		1000000	U	1000000	U	1000000	U
1,2-Dichlorobenzene		1000000	U	1000000	U	1000000	U
2-Methylphenol		1000000	U	1000000	U	1000000	U
bis(2-Chloroisopropyl)ether		1000000	U	1000000	U	1000000	U
4-Methylphenol		1000000	U	1000000	U	1000000	U
N-Nitroso-Di-n-propylamine		1000000	U	62	%	70	%
Hexachloroethane		1000000	U	1000000	U	1000000	U
Nitrobenzene		1000000	U	1000000	U	1000000	U
Isophorone		1000000	U	1000000	U	1000000	U
2-Nitrophenol		1000000	U	1000000	U	1000000	U
2,4-Dimethylphenol		1000000	U	1000000	U	1000000	U
Benzoic acid		5000000	U	5000000	U	5000000	U
bis(2-Chloroethoxy)methane		1000000	U	1000000	U	1000000	U
2,4-Dichlorophenol		1000000	U	1000000	U	1000000	U
1,2,4-Trichlorobenzene		1000000	U	87	%	89	%
Naphthalene		1000000	U	1000000	U	1000000	U
4-Chloroaniline		1000000	U	1000000	U	1000000	U
Hexachlorobutadiene		1000000	U	1000000	U	1000000	U
4-Chloro-3-methylphenol		1000000	U	68	%	71	%
2-Methylnaphthalene		1000000	U	1000000	U	1000000	U
Hexachlorocyclopentadiene		1000000	U	1000000	U	1000000	U

*= Outside of EPA CLP QC limits.

Cust ID:	SBLK	SBLK BS	SBLK BSD
RFW#:	91LE0588-MB1	91LE0588-MB1	91LE0588-MB1
2,4,6-Trichlorophenol	1000000 U	1000000 U	1000000 U
2,4,5-Trichlorophenol	5000000 U	5000000 U	5000000 U
2-Chloronaphthalene	1000000 U	1000000 U	1000000 U
2-Nitroaniline	5000000 U	5000000 U	5000000 U
Dimethylphthalate	1000000 U	1000000 U	1000000 U
Acenaphthylene	1000000 U	1000000 U	1000000 U
2,6-Dinitrotoluene	1000000 U	1000000 U	1000000 U
3-Nitroaniline	5000000 U	5000000 U	5000000 U
Acenaphthene	1000000 U	83 %	87 %
2,4-Dinitrophenol	5000000 U	5000000 U	5000000 U
4-Nitrophenol	5000000 U	54 %	61 %
Dibenzofuran	1000000 U	1000000 U	1000000 U
2,4-Dinitrotoluene	1000000 U	72 %	80 %
Diethylphthalate	1000000 U	1000000 U	1000000 U
4-Chlorophenyl-phenylether	1000000 U	1000000 U	1000000 U
Fluorene	1000000 U	1000000 U	1000000 U
4-Nitroaniline	5000000 U	5000000 U	5000000 U
4,6-Dinitro-2-methylphenol	5000000 U	5000000 U	5000000 U
N-Nitrosodiphenylamine (1)	1000000 U	1000000 U	1000000 U
4-Bromophenyl-phenylether	1000000 U	1000000 U	1000000 U
Hexachlorobenzene	1000000 U	1000000 U	1000000 U
Pentachlorophenol	5000000 U	68 %	73 %
Phenanthrene	1000000 U	1000000 U	1000000 U
Anthracene	1000000 U	1000000 U	1000000 U
Di-n-Butylphthalate	1000000 U	1000000 U	1000000 U
Fluoranthene	1000000 U	1000000 U	1000000 U
Pyrene	1000000 U	86 %	92 %
Butylbenzylphthalate	1000000 U	1000000 U	1000000 U
3,3'-Dichlorobenzidine	2000000 U	2000000 U	2000000 U
Benzo(a)anthracene	1000000 U	1000000 U	1000000 U
Chrysene	1000000 U	1000000 U	1000000 U
bis(2-Ethylhexyl)phthalate	1000000 U	1000000 U	1000000 U
Di-n-Octyl phthalate	1000000 U	1000000 U	1000000 U
Benzo(b)fluoranthene	1000000 U	1000000 U	1000000 U
Benzo(k)fluoranthene	1000000 U	1000000 U	1000000 U
Benzo(a)pyrene	1000000 U	1000000 U	1000000 U
Indeno(1,2,3-cd)pyrene	1000000 U	1000000 U	1000000 U
Dibenzo(a,h)anthracene	1000000 U	1000000 U	1000000 U
Benzo(g,h,i)perylene	1000000 U	1000000 U	1000000 U
Tributylphosphate	1000000 U	1000000 U	1000000 U

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

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000028

CLIENT SAMPLE NO.

BOOJOO

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9103L121-001

Sample wt/vol: 0.800 (g/mL) G Lab File ID: M050215

Level: (low/med) LOW Date Received: 03/29/91

% Moisture: not dec. 0 dec. Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/02/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

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

CAS NO.	COMPOUND		
108-95-2	Phenol	0.0	NR
111-44-4	bis(2-Chloroethyl)ether	1200000	U
95-57-8	2-Chlorophenol	0.0	NR
541-73-1	1,3-Dichlorobenzene	1200000	U
106-46-7	1,4-Dichlorobenzene	0.0	NR
100-51-6	Benzyl alcohol	1200000	U
95-50-1	1,2-Dichlorobenzene	1200000	U
95-48-7	2-Methylphenol	1200000	U
108-60-1	bis(2-Chloroisopropyl)ether	1200000	U
106-44-5	4-Methylphenol	1200000	U
621-64-7	N-Nitroso-Di-n-propylamine	0.0	NR
67-72-1	Hexachloroethane	1200000	U
98-95-3	Nitrobenzene	1200000	U
78-59-1	Isophorone	1200000	U
88-75-5	2-Nitrophenol	1200000	U
105-67-9	2,4-Dimethylphenol	1200000	U
65-85-0	Benzoic acid	6200000	U
111-91-1	bis(2-Chloroethoxy)methane	1200000	U
120-83-2	2,4-Dichlorophenol	1200000	U
120-82-1	1,2,4-Trichlorobenzene	0.0	NR
91-20-3	Naphthalene	1200000	U
106-47-8	4-Chloroaniline	1200000	U
87-68-3	Hexachlorobutadiene	1200000	U
59-50-7	4-Chloro-3-methylphenol	0.0	NR
91-57-6	2-Methylnaphthalene	1200000	U
77-47-4	Hexachlorocyclopentadiene	1200000	U
88-06-2	2,4,6-Trichlorophenol	1200000	U
95-95-4	2,4,5-Trichlorophenol	6200000	U
91-58-7	2-Chloronaphthalene	1200000	U
88-74-4	2-Nitroaniline	6200000	U
131-11-3	Dimethylphthalate	1200000	U
208-96-8	Acenaphthylene	1200000	U
606-20-2	2,6-Dinitrotoluene	1200000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000029

CLIENT SAMPLE NO.

BOOJOO

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9103L121-001

Sample wt/vol: 0.800 (g/mL) G Lab File ID: M050215

Level: (low/med) LOW Date Received: 03/29/91

% Moisture: not dec. 0 dec. Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/02/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
99-09-2	3-Nitroaniline	6200000	U
83-32-9	Acenaphthene	0.0	NR
51-28-5	2,4-Dinitrophenol	6200000	U
100-02-7	4-Nitrophenol	0.0	NR
132-64-9	Dibenzofuran	1200000	U
121-14-2	2,4-Dinitrotoluene	0.0	NR
84-66-2	Diethylphthalate	1200000	U
7005-72-3	4-Chlorophenyl-phenylether	1200000	U
86-73-7	Fluorene	1200000	U
100-01-6	4-Nitroaniline	6200000	U
534-52-1	4,6-Dinitro-2-methylphenol	6200000	U
86-30-6	N-Nitrosodiphenylamine (1)	1200000	U
101-55-3	4-Bromophenyl-phenylether	1200000	U
118-74-1	Hexachlorobenzene	1200000	U
87-86-5	Pentachlorophenol	0.0	NR
85-01-8	Phenanthrene	1200000	U
120-12-7	Anthracene	1200000	U
84-74-2	Di-n-Butylphthalate	1200000	U
206-44-0	Fluoranthene	1200000	U
129-00-0	Pyrene	0.0	NR
85-68-7	Butylbenzylphthalate	1200000	U
91-94-1	3,3'-Dichlorobenzidine	2500000	U
56-55-3	Benzo(a)anthracene	1200000	U
218-01-9	Chrysene	1200000	U
117-81-7	bis(2-Ethylhexyl)phthalate	1200000	U
117-84-0	Di-n-Octyl phthalate	1200000	U
205-99-2	Benzo(b)fluoranthene	1200000	U
207-08-9	Benzo(k)fluoranthene	1200000	U
50-32-8	Benzo(a)pyrene	1200000	U
193-39-5	Indeno(1,2,3-cd)pyrene	1200000	U
53-70-3	Dibenzo(a,h)anthracene	1200000	U
191-24-2	Benzo(g,h,i)perylene	1200000	U

(1) - Cannot be separated from Diphenylamine

1D

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000030

CLIENT SAMPLE NO.

BOOJOO

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-001

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050215

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/02/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
126-73-8	Tributylphosphate	1200000	U

FORM 1 SV-3

12/88 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000031

TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

BOOJOO

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-001

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050215

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/02/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

Number TICs found: 0

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

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

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000038

CLIENT SAMPLE NO.

BOOJOORE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9103L121-001

Sample wt/vol: 1.10 (g/mL) G Lab File ID: M051009

Level: (low/med) LOW Date Received: 03/29/91

% Moisture: not dec. 0 dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

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

CAS NO.	COMPOUND		
108-95-2	Phenol	910000	U
111-44-4	bis(2-Chloroethyl)ether	910000	U
95-57-8	2-Chlorophenol	910000	U
541-73-1	1,3-Dichlorobenzene	910000	U
106-46-7	1,4-Dichlorobenzene	910000	U
100-51-6	Benzyl alcohol	910000	U
95-50-1	1,2-Dichlorobenzene	910000	U
95-48-7	2-Methylphenol	910000	U
108-60-1	bis(2-Chloroisopropyl)ether	910000	U
106-44-5	4-Methylphenol	910000	U
621-64-7	N-Nitroso-Di-n-propylamine	910000	U
67-72-1	Hexachloroethane	910000	U
98-95-3	Nitrobenzene	910000	U
78-59-1	Isophorone	910000	U
88-75-5	2-Nitrophenol	910000	U
105-67-9	2,4-Dimethylphenol	910000	U
65-85-0	Benzoic acid	4500000	U
111-91-1	bis(2-Chloroethoxy)methane	910000	U
120-83-2	2,4-Dichlorophenol	910000	U
120-82-1	1,2,4-Trichlorobenzene	910000	U
91-20-3	Naphthalene	910000	U
106-47-8	4-Chloroaniline	910000	U
87-68-3	Hexachlorobutadiene	910000	U
59-50-7	4-Chloro-3-methylphenol	910000	U
91-57-6	2-Methylnaphthalene	910000	U
77-47-4	Hexachlorocyclopentadiene	910000	U
88-06-2	2,4,6-Trichlorophenol	910000	U
95-95-4	2,4,5-Trichlorophenol	4500000	U
91-58-7	2-Chloronaphthalene	910000	U
88-74-4	2-Nitroaniline	4500000	U
131-11-3	Dimethylphthalate	910000	U
208-96-8	Acenaphthylene	910000	U
606-20-2	2,6-Dinitrotoluene	910000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000039

CLIENT SAMPLE NO.

BOOJOORE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9103L121-001

Sample wt/vol: 1.10 (g/mL) G Lab File ID: M051009

Level: (low/med) LOW Date Received: 03/29/91

% Moisture: not dec. 0 dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	4500000	U
83-32-9	Acenaphthene	910000	U
51-28-5	2,4-Dinitrophenol	4500000	U
100-02-7	4-Nitrophenol	4500000	U
132-64-9	Dibenzofuran	910000	U
121-14-2	2,4-Dinitrotoluene	910000	U
84-66-2	Diethylphthalate	910000	U
7005-72-3	4-Chlorophenyl-phenylether	910000	U
86-73-7	Fluorene	910000	U
100-01-6	4-Nitroaniline	4500000	U
534-52-1	4,6-Dinitro-2-methylphenol	4500000	U
86-30-6	N-Nitrosodiphenylamine (1)	910000	U
101-55-3	4-Bromophenyl-phenylether	910000	U
118-74-1	Hexachlorobenzene	910000	U
87-86-5	Pentachlorophenol	4500000	U
85-01-8	Phenanthrene	910000	U
120-12-7	Anthracene	910000	U
84-74-2	Di-n-Butylphthalate	910000	U
206-44-0	Fluoranthene	910000	U
129-00-0	Pyrene	910000	U
85-68-7	Butylbenzylphthalate	910000	U
91-94-1	3,3'-Dichlorobenzidine	1800000	U
56-55-3	Benzo(a)anthracene	910000	U
218-01-9	Chrysene	910000	U
117-81-7	bis(2-Ethylhexyl)phthalate	910000	U
117-84-0	Di-n-Octyl phthalate	910000	U
205-99-2	Benzo(b)fluoranthene	910000	U
207-08-9	Benzo(k)fluoranthene	910000	U
50-32-8	Benzo(a)pyrene	910000	U
193-39-5	Indeno(1,2,3-cd)pyrene	910000	U
53-70-3	Dibenzo(a,h)anthracene	910000	U
191-24-2	Benzo(g,h,i)perylene	910000	U

(1) - Cannot be separated from Diphenylamine

1D

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000040

CLIENT SAMPLE NO.

BOOJOORE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-001

Sample wt/vol: 1.10 (g/mL) G

Lab File ID: M051009

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
126-73-8	Tributylphosphate	910000	U

FORM 1 SV-3

12/88 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000041

CLIENT SAMPLE NO.

BOOJOORE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-001

Sample wt/vol: 1.10 (g/mL) G

Lab File ID: M051009

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

Number TICs found: 0

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

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

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000048

CLIENT SAMPLE NO.

B00J01

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9103L121-002

Sample wt/vol: 0.800 (g/mL) G Lab File ID: M050216

Level: (low/med) LOW Date Received: 03/29/91

% Moisture: not dec. 100 dec. Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/02/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

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

CAS NO.	COMPOUND		
108-95-2	Phenol	0.0	NR
111-44-4	bis(2-Chloroethyl)ether	1200000	U
95-57-8	2-Chlorophenol	0.0	NR
541-73-1	1,3-Dichlorobenzene	1200000	U
106-46-7	1,4-Dichlorobenzene	0.0	NR
100-51-6	Benzyl alcohol	1200000	U
95-50-1	1,2-Dichlorobenzene	1200000	U
95-48-7	2-Methylphenol	1200000	U
108-60-1	bis(2-Chloroisopropyl)ether	1200000	U
106-44-5	4-Methylphenol	1200000	U
621-64-7	N-Nitroso-Di-n-propylamine	0.0	NR
67-72-1	Hexachloroethane	1200000	U
98-95-3	Nitrobenzene	1200000	U
78-59-1	Isophorone	1200000	U
88-75-5	2-Nitrophenol	1200000	U
105-67-9	2,4-Dimethylphenol	1200000	U
65-85-0	Benzoic acid	6200000	U
111-91-1	bis(2-Chloroethoxy)methane	1200000	U
120-83-2	2,4-Dichlorophenol	1200000	U
120-82-1	1,2,4-Trichlorobenzene	0.0	NR
91-20-3	Naphthalene	1200000	U
106-47-8	4-Chloroaniline	1200000	U
87-68-3	Hexachlorobutadiene	1200000	U
59-50-7	4-Chloro-3-methylphenol	0.0	NR
91-57-6	2-Methylnaphthalene	1200000	U
77-47-4	Hexachlorocyclopentadiene	1200000	U
88-06-2	2,4,6-Trichlorophenol	1200000	U
95-95-4	2,4,5-Trichlorophenol	6200000	U
91-58-7	2-Chloronaphthalene	1200000	U
88-74-4	2-Nitroaniline	6200000	U
131-11-3	Dimethylphthalate	1200000	U
208-96-8	Acenaphthylene	1200000	U
606-20-2	2,6-Dinitrotoluene	1200000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000049

CLIENT SAMPLE NO.

B00J01

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-002

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050216

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/02/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	6200000	U
83-32-9	Acenaphthene	0.0	NR
51-28-5	2,4-Dinitrophenol	6200000	U
100-02-7	4-Nitrophenol	6200000	U
132-64-9	Dibenzofuran	1200000	U
121-14-2	2,4-Dinitrotoluene	0.0	NR
84-66-2	Diethylphthalate	1200000	U
7005-72-3	4-Chlorophenyl-phenylether	1200000	U
86-73-7	Fluorene	1200000	U
100-01-6	4-Nitroaniline	6200000	U
534-52-1	4,6-Dinitro-2-methylphenol	6200000	U
86-30-6	N-Nitrosodiphenylamine (1)	1200000	U
101-55-3	4-Bromophenyl-phenylether	1200000	U
118-74-1	Hexachlorobenzene	1200000	U
87-86-5	Pentachlorophenol	0.0	NR
85-01-8	Phenanthrene	1200000	U
120-12-7	Anthracene	1200000	U
84-74-2	Di-n-Butylphthalate	1200000	U
206-44-0	Fluoranthene	1200000	U
129-00-0	Pyrene	0.0	NR
85-68-7	Butylbenzylphthalate	1200000	U
91-94-1	3,3'-Dichlorobenzidine	2500000	U
56-55-3	Benzo(a)anthracene	1200000	U
218-01-9	Chrysene	1200000	U
117-81-7	bis(2-Ethylhexyl)phthalate	1200000	U
117-84-0	Di-n-Octyl phthalate	1200000	U
205-99-2	Benzo(b)fluoranthene	1200000	U
207-08-9	Benzo(k)fluoranthene	1200000	U
50-32-8	Benzo(a)pyrene	1200000	U
193-39-5	Indeno(1,2,3-cd)pyrene	1200000	U
53-70-3	Dibenzo(a,h)anthracene	1200000	U
191-24-2	Benzo(g,h,i)perylene	1200000	U

(1) - Cannot be separated from Diphenylamine

1D

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000050

CLIENT SAMPLE NO.

B00J01

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-002

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050216

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/02/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
126-73-8	Tributylphosphate	1200000	U

FORM 1 SV-3

12/88 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000051

CLIENT SAMPLE NO.

B00J01

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-002

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050216

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/02/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	10.62	600000	J
2.	UNKNOWN	11.05	2000000	J

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000061

CLIENT SAMPLE NO.

B00J01RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9103L121-002

Sample wt/vol: 1.00 (g/mL) G Lab File ID: M051010

Level: (low/med) LOW Date Received: 03/29/91

% Moisture: not dec. 0 dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

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

CAS NO.	COMPOUND		
108-95-2	Phenol	1000000	U
111-44-4	bis(2-Chloroethyl)ether	1000000	U
95-57-8	2-Chlorophenol	1000000	U
541-73-1	1,3-Dichlorobenzene	1000000	U
106-46-7	1,4-Dichlorobenzene	1000000	U
100-51-6	Benzyl alcohol	1000000	U
95-50-1	1,2-Dichlorobenzene	1000000	U
95-48-7	2-Methylphenol	1000000	U
108-60-1	bis(2-Chloroisopropyl)ether	1000000	U
106-44-5	4-Methylphenol	1000000	U
621-64-7	N-Nitroso-Di-n-propylamine	1000000	U
67-72-1	Hexachloroethane	1000000	U
98-95-3	Nitrobenzene	1000000	U
78-59-1	Isophorone	1000000	U
88-75-5	2-Nitrophenol	1000000	U
105-67-9	2,4-Dimethylphenol	1000000	U
65-85-0	Benzoic acid	5000000	U
111-91-1	bis(2-Chloroethoxy)methane	1000000	U
120-83-2	2,4-Dichlorophenol	1000000	U
120-82-1	1,2,4-Trichlorobenzene	1000000	U
91-20-3	Naphthalene	1000000	U
106-47-8	4-Chloroaniline	1000000	U
87-68-3	Hexachlorobutadiene	1000000	U
59-50-7	4-Chloro-3-methylphenol	1000000	U
91-57-6	2-Methylnaphthalene	1000000	U
77-47-4	Hexachlorocyclopentadiene	1000000	U
88-06-2	2,4,6-Trichlorophenol	1000000	U
95-95-4	2,4,5-Trichlorophenol	5000000	U
91-58-7	2-Chloronaphthalene	1000000	U
88-74-4	2-Nitroaniline	5000000	U
131-11-3	Dimethylphthalate	1000000	U
208-96-8	Acenaphthylene	1000000	U
606-20-2	2,6-Dinitrotoluene	1000000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000082

CLIENT SAMPLE NO.

B00J01RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-002

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M051010

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	5000000	U
83-32-9	Acenaphthene	1000000	U
51-28-5	2,4-Dinitrophenol	5000000	U
100-02-7	4-Nitrophenol	5000000	U
132-64-9	Dibenzofuran	1000000	U
121-14-2	2,4-Dinitrotoluene	1000000	U
84-66-2	Diethylphthalate	1000000	U
7005-72-3	4-Chlorophenyl-phenylether	1000000	U
86-73-7	Fluorene	1000000	U
100-01-6	4-Nitroaniline	5000000	U
534-52-1	4,6-Dinitro-2-methylphenol	5000000	U
86-30-6	N-Nitrosodiphenylamine (1)	1000000	U
101-55-3	4-Bromophenyl-phenylether	1000000	U
118-74-1	Hexachlorobenzene	1000000	U
87-86-5	Pentachlorophenol	5000000	U
85-01-8	Phenanthrene	1000000	U
120-12-7	Anthracene	1000000	U
84-74-2	Di-n-Butylphthalate	1000000	U
206-44-0	Fluoranthene	1000000	U
129-00-0	Pyrene	1000000	U
85-68-7	Butylbenzylphthalate	1000000	U
91-94-1	3,3'-Dichlorobenzidine	2000000	U
56-55-3	Benzo(a)anthracene	1000000	U
218-01-9	Chrysene	1000000	U
117-81-7	bis(2-Ethylhexyl)phthalate	1000000	U
117-84-0	Di-n-Octyl phthalate	1000000	U
205-99-2	Benzo(b)fluoranthene	1000000	U
207-08-9	Benzo(k)fluoranthene	1000000	U
50-32-8	Benzo(a)pyrene	1000000	U
193-39-5	Indeno(1,2,3-cd)pyrene	1000000	U
53-70-3	Dibenzo(a,h)anthracene	1000000	U
191-24-2	Benzo(g,h,i)perylene	1000000	U

(1) - Cannot be separated from Diphenylamine

1D

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000083

CLIENT SAMPLE NO.

B00J01RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-002

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M051010

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
126-73-8	Tributylphosphate	170000	J

FORM 1 SV-3

12/88 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000064

CLIENT SAMPLE NO.

B00J01RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-002

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M051010

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	10.58	400000	J
2.	UNKNOWN	11.00	1000000	J

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000076

CLIENT SAMPLE NO.

B00J03

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-003

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050305

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
108-95-2	Phenol	0.0	NR
111-44-4	bis(2-Chloroethyl)ether	1200000	U
95-57-8	2-Chlorophenol	0.0	NR
541-73-1	1,3-Dichlorobenzene	1200000	U
106-46-7	1,4-Dichlorobenzene	0.0	NR
100-51-6	Benzyl alcohol	1200000	U
95-50-1	1,2-Dichlorobenzene	1200000	U
95-48-7	2-Methylphenol	1200000	U
108-60-1	bis(2-Chloroisopropyl)ether	1200000	U
106-44-5	4-Methylphenol	1200000	U
621-64-7	N-Nitroso-Di-n-propylamine	0.0	NR
67-72-1	Hexachloroethane	1200000	U
98-95-3	Nitrobenzene	1200000	U
78-59-1	Isophorone	1200000	U
88-75-5	2-Nitrophenol	1200000	U
105-67-9	2,4-Dimethylphenol	1200000	U
65-85-0	Benzoic acid	6200000	U
111-91-1	bis(2-Chloroethoxy)methane	1200000	U
120-83-2	2,4-Dichlorophenol	1200000	U
120-82-1	1,2,4-Trichlorobenzene	0.0	NR
91-20-3	Naphthalene	1200000	U
106-47-8	4-Chloroaniline	1200000	U
87-68-3	Hexachlorobutadiene	1200000	U
59-50-7	4-Chloro-3-methylphenol	0.0	NR
91-57-6	2-Methylnaphthalene	1200000	U
77-47-4	Hexachlorocyclopentadiene	1200000	U
88-06-2	2,4,6-Trichlorophenol	1200000	U
95-95-4	2,4,5-Trichlorophenol	6200000	U
91-58-7	2-Chloronaphthalene	1200000	U
88-74-4	2-Nitroaniline	6200000	U
131-11-3	Dimethylphthalate	1200000	U
208-96-8	Acenaphthylene	1200000	U
606-20-2	2,6-Dinitrotoluene	1200000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000077

CLIENT SAMPLE NO.

B00J03

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-003

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050305

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	6200000	U
83-32-9	Acenaphthene	0.0	NR
51-28-5	2,4-Dinitrophenol	6200000	U
100-02-7	4-Nitrophenol	6200000	U
132-64-9	Dibenzofuran	1200000	U
121-14-2	2,4-Dinitrotoluene	0.0	NR
84-66-2	Diethylphthalate	1200000	U
7005-72-3	4-Chlorophenyl-phenylether	1200000	U
86-73-7	Fluorene	1200000	U
100-01-6	4-Nitroaniline	6200000	U
534-52-1	4,6-Dinitro-2-methylphenol	6200000	U
86-30-6	N-Nitrosodiphenylamine (1)	1200000	U
101-55-3	4-Bromophenyl-phenylether	1200000	U
118-74-1	Hexachlorobenzene	1200000	U
87-86-5	Pentachlorophenol	0.0	NR
85-01-8	Phenanthrene	1200000	U
120-12-7	Anthracene	1200000	U
84-74-2	Di-n-Butylphthalate	1200000	U
206-44-0	Fluoranthene	1200000	U
129-00-0	Pyrene	0.0	NR
85-68-7	Butylbenzylphthalate	1200000	U
91-94-1	3,3'-Dichlorobenzidine	2500000	U
56-55-3	Benzo(a)anthracene	1200000	U
218-01-9	Chrysene	1200000	U
117-81-7	bis(2-Ethylhexyl)phthalate	1200000	U
117-84-0	Di-n-Octyl phthalate	1200000	U
205-99-2	Benzo(b)fluoranthene	1200000	U
207-08-9	Benzo(k)fluoranthene	1200000	U
50-32-8	Benzo(a)pyrene	1200000	U
193-39-5	Indeno(1,2,3-cd)pyrene	1200000	U
53-70-3	Dibenzo(a,h)anthracene	1200000	U
191-24-2	Benzo(g,h,i)perylene	1200000	U

(1) - Cannot be separated from Diphenylamine

1D

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000078

CLIENT SAMPLE NO.

B00J03

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-003

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050305

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
126-73-8	Tributylphosphate	1200000	U

FORM 1 SV-3

12/88 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000070

TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B00J03

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-003

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050305

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.33	600000	J

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000088

CLIENT SAMPLE NO.

B00J03RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-003

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M051011

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
108-95-2	Phenol	1000000	U
111-44-4	bis(2-Chloroethyl)ether	1000000	U
95-57-8	2-Chlorophenol	1000000	U
541-73-1	1,3-Dichlorobenzene	1000000	U
106-46-7	1,4-Dichlorobenzene	1000000	U
100-51-6	Benzyl alcohol	1000000	U
95-50-1	1,2-Dichlorobenzene	1000000	U
95-48-7	2-Methylphenol	1000000	U
108-60-1	bis(2-Chloroisopropyl)ether	1000000	U
106-44-5	4-Methylphenol	1000000	U
621-64-7	N-Nitroso-Di-n-propylamine	1000000	U
67-72-1	Hexachloroethane	1000000	U
98-95-3	Nitrobenzene	1000000	U
78-59-1	Isophorone	1000000	U
88-75-5	2-Nitrophenol	1000000	U
105-67-9	2,4-Dimethylphenol	1000000	U
65-85-0	Benzoic acid	5000000	U
111-91-1	bis(2-Chloroethoxy)methane	1000000	U
120-83-2	2,4-Dichlorophenol	1000000	U
120-82-1	1,2,4-Trichlorobenzene	1000000	U
91-20-3	Naphthalene	1000000	U
106-47-8	4-Chloroaniline	1000000	U
87-68-3	Hexachlorobutadiene	1000000	U
59-50-7	4-Chloro-3-methylphenol	1000000	U
91-57-6	2-Methylnaphthalene	1000000	U
77-47-4	Hexachlorocyclopentadiene	1000000	U
88-06-2	2,4,6-Trichlorophenol	1000000	U
95-95-4	2,4,5-Trichlorophenol	5000000	U
91-58-7	2-Chloronaphthalene	1000000	U
88-74-4	2-Nitroaniline	5000000	U
131-11-3	Dimethylphthalate	1000000	U
208-96-8	Acenaphthylene	1000000	U
606-20-2	2,6-Dinitrotoluene	1000000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000029

CLIENT SAMPLE NO.

B00J03RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-003

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M051011

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	5000000	U
83-32-9	Acenaphthene	1000000	U
51-28-5	2,4-Dinitrophenol	5000000	U
100-02-7	4-Nitrophenol	5000000	U
132-64-9	Dibenzofuran	1000000	U
121-14-2	2,4-Dinitrotoluene	1000000	U
84-66-2	Diethylphthalate	1000000	U
7005-72-3	4-Chlorophenyl-phenylether	1000000	U
86-73-7	Fluorene	1000000	U
100-01-6	4-Nitroaniline	5000000	U
534-52-1	4,6-Dinitro-2-methylphenol	5000000	U
86-30-6	N-Nitrosodiphenylamine (1)	1000000	U
101-55-3	4-Bromophenyl-phenylether	1000000	U
118-74-1	Hexachlorobenzene	1000000	U
87-86-5	Pentachlorophenol	5000000	U
85-01-8	Phenanthrene	1000000	U
120-12-7	Anthracene	1000000	U
84-74-2	Di-n-Butylphthalate	1000000	U
206-44-0	Fluoranthene	1000000	U
129-00-0	Pyrene	1000000	U
85-68-7	Butylbenzylphthalate	1000000	U
91-94-1	3,3'-Dichlorobenzidine	2000000	U
56-55-3	Benzo(a)anthracene	1000000	U
218-01-9	Chrysene	1000000	U
117-81-7	bis(2-Ethylhexyl)phthalate	1000000	U
117-84-0	Di-n-Octyl phthalate	1000000	U
205-99-2	Benzo(b)fluoranthene	1000000	U
207-08-9	Benzo(k)fluoranthene	1000000	U
50-32-8	Benzo(a)pyrene	1000000	U
193-39-5	Indeno(1,2,3-cd)pyrene	1000000	U
53-70-3	Dibenzo(a,h)anthracene	1000000	U
191-24-2	Benzo(g,h,i)perylene	1000000	U

(1) - Cannot be separated from Diphenylamine

1D

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000090

CLIENT SAMPLE NO.

B00J03RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-003

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M051011

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
126-73-8	Tributylphosphate	1000000	U

FORM 1 SV-3

12/88 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000091

CLIENT SAMPLE NO.

B00J03RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-003

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M051011

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.25	600000	J

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000100

CLIENT SAMPLE NO.

B00J04

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9103L121-004

Sample wt/vol: 0.800 (g/mL) G Lab File ID: M050306

Level: (low/med) LOW Date Received: 03/29/91

% Moisture: not dec. 0 dec. Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

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

CAS NO.	COMPOUND		
108-95-2	Phenol	0.0	NR
111-44-4	bis(2-Chloroethyl)ether	1200000	U
95-57-8	2-Chlorophenol	0.0	NR
541-73-1	1,3-Dichlorobenzene	1200000	U
106-46-7	1,4-Dichlorobenzene	0.0	NR
100-51-6	Benzyl alcohol	1200000	U
95-50-1	1,2-Dichlorobenzene	1200000	U
95-48-7	2-Methylphenol	1200000	U
108-60-1	bis(2-Chloroisopropyl)ether	1200000	U
106-44-5	4-Methylphenol	1200000	U
621-64-7	N-Nitroso-Di-n-propylamine	0.0	NR
67-72-1	Hexachloroethane	1200000	U
98-95-3	Nitrobenzene	1200000	U
78-59-1	Isophorone	1200000	U
88-75-5	2-Nitrophenol	1200000	U
105-67-9	2,4-Dimethylphenol	1200000	U
65-85-0	Benzoic acid	6200000	U
111-91-1	bis(2-Chloroethoxy)methane	1200000	U
120-83-2	2,4-Dichlorophenol	1200000	U
120-82-1	1,2,4-Trichlorobenzene	0.0	NR
91-20-3	Naphthalene	1200000	U
106-47-8	4-Chloroaniline	1200000	U
87-68-3	Hexachlorobutadiene	1200000	U
59-50-7	4-Chloro-3-methylphenol	0.0	NR
91-57-6	2-Methylnaphthalene	1200000	U
77-47-4	Hexachlorocyclopentadiene	1200000	U
88-06-2	2,4,6-Trichlorophenol	1200000	U
95-95-4	2,4,5-Trichlorophenol	6200000	U
91-58-7	2-Chloronaphthalene	1200000	U
88-74-4	2-Nitroaniline	6200000	U
131-11-3	Dimethylphthalate	1200000	U
208-96-8	Acenaphthylene	1200000	U
606-20-2	2,6-Dinitrotoluene	1200000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000010

CLIENT SAMPLE NO.

B00J04

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-004

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050306

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	6200000	U
83-32-9	Acenaphthene	0.0	NR
51-28-5	2,4-Dinitrophenol	6200000	U
100-02-7	4-Nitrophenol	0.0	NR
132-64-9	Dibenzofuran	1200000	U
121-14-2	2,4-Dinitrotoluene	0.0	NR
84-66-2	Diethylphthalate	1200000	U
7005-72-3	4-Chlorophenyl-phenylether	1200000	U
86-73-7	Fluorene	1200000	U
100-01-6	4-Nitroaniline	6200000	U
534-52-1	4,6-Dinitro-2-methylphenol	6200000	U
86-30-6	N-Nitrosodiphenylamine (1)	1200000	U
101-55-3	4-Bromophenyl-phenylether	1200000	U
118-74-1	Hexachlorobenzene	1200000	U
87-86-5	Pentachlorophenol	0.0	NR
85-01-8	Phenanthrene	1200000	U
120-12-7	Anthracene	1200000	U
84-74-2	Di-n-Butylphthalate	1200000	U
206-44-0	Fluoranthene	1200000	U
129-00-0	Pyrene	0.0	NR
85-68-7	Butylbenzylphthalate	1200000	U
91-94-1	3,3'-Dichlorobenzidine	2500000	U
56-55-3	Benzo(a)anthracene	1200000	U
218-01-9	Chrysene	1200000	U
117-81-7	bis(2-Ethylhexyl)phthalate	1200000	U
117-84-0	Di-n-Octyl phthalate	1200000	U
205-99-2	Benzo(b)fluoranthene	1200000	U
207-08-9	Benzo(k)fluoranthene	1200000	U
50-32-8	Benzo(a)pyrene	1200000	U
193-39-5	Indeno(1,2,3-cd)pyrene	1200000	U
53-70-3	Dibenzo(a,h)anthracene	1200000	U
191-24-2	Benzo(g,h,i)perylene	1200000	U

(1) - Cannot be separated from Diphenylamine

1D
SEMIVOLATILE ORGANICS ANALYSIS SHEET 000102

CLIENT SAMPLE NO.

B00J04

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-004

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050306

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
126-73-8	Tributylphosphate	370000	J

FORM 1 SV-3 12/88 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000103

TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B00J04

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-004

Sample wt/vol: 0.800 (g/mL) G

Lab File ID: M050306

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/03/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	10.62	600000	J
2.	UNKNOWN	11.03	2000000	J

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000011

CLIENT SAMPLE NO.

B00J04RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-004

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M051012

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
108-95-2	Phenol	1000000	U UJ
111-44-4	bis(2-Chloroethyl)ether	1000000	U
95-57-8	2-Chlorophenol	1000000	U UJ
541-73-1	1,3-Dichlorobenzene	1000000	U
106-46-7	1,4-Dichlorobenzene	1000000	U UJ
100-51-6	Benzyl alcohol	1000000	U
95-50-1	1,2-Dichlorobenzene	1000000	U
95-48-7	2-Methylphenol	1000000	U
108-60-1	bis(2-Chloroisopropyl)ether	1000000	U
106-44-5	4-Methylphenol	1000000	U
621-64-7	N-Nitroso-Di-n-propylamine	1000000	U UJ
67-72-1	Hexachloroethane	1000000	U
98-95-3	Nitrobenzene	1000000	U
78-59-1	Isophorone	1000000	U
88-75-5	2-Nitrophenol	1000000	U
105-67-9	2,4-Dimethylphenol	1000000	U
65-85-0	Benzoic acid	5000000	U
111-91-1	bis(2-Chloroethoxy)methane	1000000	U
120-83-2	2,4-Dichlorophenol	1000000	U
120-82-1	1,2,4-Trichlorobenzene	1000000	U UJ
91-20-3	Naphthalene	1000000	U
106-47-8	4-Chloroaniline	1000000	U
87-68-3	Hexachlorobutadiene	1000000	U
59-50-7	4-Chloro-3-methylphenol	1000000	U
91-57-6	2-Methylnaphthalene	1000000	U
77-47-4	Hexachlorocyclopentadiene	1000000	U UJ
88-06-2	2,4,6-Trichlorophenol	1000000	U
95-95-4	2,4,5-Trichlorophenol	5000000	U
91-58-7	2-Chloronaphthalene	1000000	U
88-74-4	2-Nitroaniline	5000000	U
131-11-3	Dimethylphthalate	1000000	U
208-96-8	Acenaphthylene	1000000	U
606-20-2	2,6-Dinitrotoluene	1000000	U

7-20-91

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000116

CLIENT SAMPLE NO.

B00J04RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-004

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M051012

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	5000000	U
83-32-9	Acenaphthene	1000000	U UJ
51-28-5	2,4-Dinitrophenol	5000000	U
100-02-7	4-Nitrophenol	5000000	U UJ
132-64-9	Dibenzofuran	1000000	U
121-14-2	2,4-Dinitrotoluene	1000000	U UJ
84-66-2	Diethylphthalate	1000000	U
7005-72-3	4-Chlorophenyl-phenylether	1000000	U
86-73-7	Fluorene	1000000	U
100-01-6	4-Nitroaniline	5000000	U
534-52-1	4,6-Dinitro-2-methylphenol	5000000	U
86-30-6	N-Nitrosodiphenylamine (1)	1000000	U
101-55-3	4-Bromophenyl-phenylether	1000000	U
118-74-1	Hexachlorobenzene	1000000	U
87-86-5	Pentachlorophenol	5000000	U UJ
85-01-8	Phenanthrene	1000000	U
120-12-7	Anthracene	1000000	U
84-74-2	Di-n-Butylphthalate	1000000	U
206-44-0	Fluoranthene	1000000	U
129-00-0	Pyrene	1000000	U UJ
85-68-7	Butylbenzylphthalate	1000000	U
91-94-1	3,3'-Dichlorobenzidine	2000000	U
56-55-3	Benzo(a)anthracene	1000000	U
218-01-9	Chrysene	1000000	U
117-81-7	bis(2-Ethylhexyl)phthalate	1000000	U
117-84-0	Di-n-Octyl phthalate	1000000	U
205-99-2	Benzo(b)fluoranthene	1000000	U
207-08-9	Benzo(k)fluoranthene	1000000	U
50-32-8	Benzo(a)pyrene	1000000	U
193-39-5	Indeno(1,2,3-cd)pyrene	1000000	U
53-70-3	Dibenzo(a,h)anthracene	1000000	U
191-24-2	Benzo(g,h,i)perylene	1000000	U

(1) - Cannot be separated from Diphenylamine

1D

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000117

CLIENT SAMPLE NO.

B00J04RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-004

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M051012

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

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

CAS NO.	COMPOUND		
126-73-8	Tributylphosphate	300000	J

FORM 1 SV-3

12/88 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET 00011

TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B00J04RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-004

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M051012

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 0 dec.

Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALKANE	6.85	400000	J
2.	UNKNOWN	10.23	200000	J
3.	UNKNOWN	10.58	500000	J
4.	UNKNOWN	11.00	2000000	J

Roy F. Weston, Inc. - Lionville Laboratory
PCBs by GC

Report Date: 05/03/91 18:24

RFW Batch Number: 9103L121 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Page: 1

	Cust ID:	B00J00		B00J01		B00J03		B00J04		B00J04		B00J04	
Sample Information	RFW#:	001		002		003		004		004 MS		004 MSD	
	Matrix:	DRUM		DRUM		DRUM		DRUM		DRUM		DRUM	
	D.F.:	0.500		2.50		0.500		2.50		2.50		2.50	
	Units:	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Surrogate: Di-n-butylchlorendate		74	%	127	%	119	%	113	%	117	%	124	%
Aroclor-1016		12000	U	60000	U	12000	U	60000	U	60000	U	60000	U
Aroclor-1221		12000	U	60000	U	12000	U	60000	U	60000	U	60000	U
Aroclor-1232		12000	U	60000	U	12000	U	60000	U	60000	U	60000	U
Aroclor-1242		12000	U	60000	U	12000	U	60000	U	60000	U	60000	U
Aroclor-1248		12000	U	60000	U	12000	U	60000	U	60000	U	60000	U
Aroclor-1254		24000	U UJ	120000	U UJ	24000	U UJ	120000	U UJ	128	%	134	%
Aroclor-1260		24000	U	120000	U	24000	U	120000	U	120000	U	120000	U

	Cust ID:	PBLK		PBLK BS	
Sample Information	RFW#:	91LE0433-MB1		91LE0433-MB1	
	Matrix:	SOIL		SOIL	
	D.F.:	0.500		0.500	
	Units:	ug/Kg		ug/Kg	
Surrogate: Di-n-butylchlorendate		110	%	115	%
Aroclor-1016		12000	U	12000	U
Aroclor-1221		12000	U	12000	U
Aroclor-1232		12000	U	12000	U
Aroclor-1242		12000	U	12000	U
Aroclor-1248		12000	U	12000	U
Aroclor-1254		24000	U	101	%
Aroclor-1260		24000	U	24000	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

1D

PESTICIDE ORGANICS ANALYSIS SHEET 0000013

CLIENT SAMPLE NO.

BOOJOO

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-001

Sample wt/vol: 0.100 (g/mL) G

Lab File ID: 05019113.42

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/01/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/02/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 0.500

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

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	12000	U
11104-28-2	Aroclor-1221	12000	U
11141-16-5	Aroclor-1232	12000	U
53469-21-9	Aroclor-1242	12000	U
12672-29-6	Aroclor-1248	12000	U
11097-69-1	Aroclor-1254	24000	U
11096-82-5	Aroclor-1260	24000	U

FORM 1 PEST 12/88 Rev.

1D

PESTICIDE ORGANICS ANALYSIS SHEET 0000018

CLIENT SAMPLE NO.

B00J01

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-002

Sample wt/vol: 0.100 (g/mL) G

Lab File ID: 05019113.43

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/01/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 2.50

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

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	60000	U
11104-28-2	Aroclor-1221	60000	U
11141-16-5	Aroclor-1232	60000	U
53469-21-9	Aroclor-1242	60000	U
12672-29-6	Aroclor-1248	60000	U
11097-69-1	Aroclor-1254	120000	U
11096-82-5	Aroclor-1260	120000	U

5/6/91

FORM 1 PEST 12/88 Rev.

1D

PESTICIDE ORGANICS ANALYSIS SHEET 0000023

CLIENT SAMPLE NO.

B00J03

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-003

Sample wt/vol: 0.100 (g/mL) G

Lab File ID: 05019113.44

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/01/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 0.500

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

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	12000	U
11104-28-2	Aroclor-1221	12000	U
11141-16-5	Aroclor-1232	12000	U
53469-21-9	Aroclor-1242	12000	U
12672-29-6	Aroclor-1248	12000	U
11097-69-1	Aroclor-1254	24000	U
11096-82-5	Aroclor-1260	24000	U

M 4/6/91

FORM 1 PEST 12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET 0000028

CLIENT SAMPLE NO.

B00J04

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9103L121-004

Sample wt/vol: 0.100 (g/mL) G

Lab File ID: 05019113.45

Level: (low/med) LOW

Date Received: 03/29/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/01/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/03/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 2.50

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
12674-11-2	Aroclor-1016	60000	U
11104-28-2	Aroclor-1221	60000	U
11141-16-5	Aroclor-1232	60000	U
53469-21-9	Aroclor-1242	60000	U
12672-29-6	Aroclor-1248	60000	U
11097-69-1	Aroclor-1254	120000	U
11096-82-5	Aroclor-1260	120000	U

5/6/91

ORGANIC QC - Holding Times

Name CJ Simiele Date 7-20-91

COMMENTS: VOA (hold time 14 days) analysis performed six, seven, and eight days after sampling.
BNA - (hold times - 7 day extract, analysis - 40 days after extract) - initial extract 6 days, re-extraction due to contamination in initial extract - 40 days, analysis of re-extract 2 days after extr.
PCB - extraction 4 days after sampling, analysis 31 and 32 days after extraction

ACTION: Qualify associated samples as per OSM guidelines. -
BNA

	sample #	constituent	value/qual	sample #	constituent	value/qual
BNA:	B00J04 (Reprep)	Phenol	UJ			
		2-Chlorophenol				
		1,4-Dichlorobenzene				
		N-Nitroso-Di-n-propylamine				
		1,2,4-Trichlorobenzene				
		4-Chloro-3-methylphenol				
		Acenaphthene				
		4-Nitrophenol				
		2,4-Dinitrotoluene				
		Pentachlorophenol				
		Pyrene				

ORGANIC QC - Surrogate Recovery

Name C.J. Simiela Date 7-19-91

COMMENTS: VOA- surrogate % recoveries for compounds which were not diluted out are all within required control limits
BNA- one surrogate recovery out of required control limits.
PCB- all surrogate % recoveries are within required control limits

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

ORGANIC QC - MS/MSD

Name C.J. Simiele Date 7-20-91

COMMENTS: VOA- matrix spike % recoveries and % RPD's are all within required control limits.
BNA- six matrix spike % recoveries out of 22 are out of required control limits, all RPD's are in required control limit
Three blank spike % recoveries out of control limit's
PCB- matrix spike % recoveries and % RPD's are within required control limits

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

ORGANIC QC - Blanks

Name C.J. Simiele Date 7-20-91

COMMENTS: VOA- Common lab contaminants (methylene chloride (med- 2300, low-10); acetone (med-3100, low-16) detected in blanks, blank frequency met

BNA- no contaminants detected in blank

PCB- no contaminants detected in blank

ACTION: Qualify associated samples as per OSM guidelines - VOA

	sample #	constituent	value/qual	sample #	constituent	value/qual
VOA:	B00J06	methylene Cl	43 U			
	L	acetone	8 U			

ORGANIC QC - GC/MS Tune

Name C.J. Sumiela Date 7-20-91

COMMENTS: VOA - BFB % relative abundance are all within required control limits, tune frequency met. BNA - DFTPP % relative abundance are all within required control limits, tune frequency met.

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

ORGANIC QC - Calibrations

Name C.J. Simiele Date 7-20-91

COMMENTS: VOA- Initial and continuing calibration are all within required control limits.
BNA- Initial and continuing calibration are all within required control limits
PCB- Initial calibration linearity requirements met, analytical sequence requirements met, continuing calibration %D criteria exceeds for more than 10 pesticides and 1 aroclor (1254)

ACTION: Qualify all associated samples as per OSM guidelines-PCB

PCB-

sample #	constituent	value/qual
B00J00	aroclor 1254	UJ
B00J01	aroclor 1254	UJ
B00J03	aroclor 1254	UJ
B00J04	aroclor 1254	UJ

sample #	constituent	value/qual

ORGANIC QC - Internal Standards

Name C.J. Simiele Date 7-20-91

COMMENTS: VOA- internal standard area counts and retention times are all within required control limits, tune frequency met

BNA- two samples (B00J03 and B00J04) had area counts out of required control limits for 2 standandards, retention times are all within control limits. Re-analysis of five samples had area counts out of control limits for 1 standard

ACTION: Qualify all associated samples as per OSM guidelines

sample #	constituent	value/qual
BNA-		
B00J03	All constituents	UJ
B00J03	All constituents except TBP	UJ
	Tributylphosphate	J

sample #	constituent	value/qual

ORGANIC QC - Instrument Performance (pest)

Name CJ Simiele Date 7-20-91

COMMENTS: DDT retention times are all within required Control limits. All aroclor retention times are within required control limits. Many Pest compounds have retention times out of window, but PCB data should not be effected. One DBC %D out of required control limit for a sample not associated with this SDG.

ACTION: None.- data user should be aware that non-PCB retention times went out of required control limits.

sample #	constituent	value/qual	sample #	constituent	value/qual

ORGANIC QC - Other

Name C.J. Simiele Date 7-20-91

COMMENTS: None

ACTION: N/A

sample #	constituent	value/qual	sample #	constituent	value/qual

Westinghouse
Hanford Company

OSM INORGANIC DATA ASSESSMENT

DATE 7-21-91

SAMPLES/MATRIX B00J00- organic liquids.

REVIEWED BY C.J. Simiele

B00J01

LABORATORY Roy F. Weston

B00J03

CASE #

B00J04

SDG # 91032L121

B00J06

DATA ASSESSMENT SUMMARY

	ICP	AA	Hg	CN
1. Calibrations (Form II)	O			
2. Blanks (III)	X			
3. ICS (IV)	O			
4. Matrix Spike (V)	~~X~~			
5. Duplicate Analysis (VI)	O			
6. LCS (VII)	O			
7. Serial Dilution (IX)	O			
8. GFAA				
9. Holding Times (XIV)	O			
10. Other QC	N/A			

O = data had no problems
X = data qualified due to minor problems
M = data qualified due to major problems/some data may be unusable

OVERALL ASSESSSMENT: Good, no serious QC problems.

NOTES:

o Refer to the corresponding attachments for explanation of any problems.

0000007

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJOO

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP121

Matrix (soil/water):WATER Lab Sample ID:9103121001

Level (low/med): LOW Date Received:03/29/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	77.0	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	92.0	U		P
7440-47-3	Chromium	3.00	U		P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	20.8	B		P
7439-89-6	Iron	37.0	U	N ~~J~~ UJ	P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U		P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	NUJ	P
7440-23-5	Sodium	71.0	U		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U		P
7440-66-6	Zinc	6.70	B		P
	Cyanide	20.0	U		C

7-21-91
W Summerly

Color Before:BROWN Clarity Before: Texture:FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

FORM I - IN

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B00J01

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP121

Matrix (soil/water):WATER Lab Sample ID:9103121002

Level (low/med): LOW Date Received:03/29/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	77.0	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	228	B		P
7440-47-3	Chromium	3.00	U		P
7440-48-4	Cobalt	4.20	B	U	P
7440-50-8	Copper	34.4			P
7439-89-6	Iron	21000		NJ	P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	52.9			P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N UJ	P
7440-23-5	Sodium	71.0	U		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U		P
7440-66-6	Zinc	237			P
	Cyanide	20.0	U		C

7-21-91
W Samuels

Color Before:BROWN Clarity Before: Texture:FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

FORM I - IN

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B00J03

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP121

Matrix (soil/water):WATER Lab Sample ID:9103121003

Level (low/med): LOW Date Received:03/29/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	239			P
7440-36-0	Antimony	148			P
7440-38-2	Arsenic				
7440-39-3	Barium	9.30	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	370	B		P
7440-47-3	Chromium	4760			P
7440-48-4	Cobalt	8.60	B	U	P
7440-50-8	Copper	55.1			P
7439-89-6	Iron	11400		NJ	P
7439-92-1	Lead				
7439-95-4	Magnesium	263	B		P
7439-96-5	Manganese	72.5			P
7439-97-6	Mercury				
7440-02-0	Nickel	21.2	B		P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	10.6		NJ	P
7440-23-5	Sodium	71.0	U		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U		P
7440-66-6	Zinc	130			P
	Cyanide	20.0	U		C

7-21-91
W Smith

Color Before:BROWN Clarity Before: Texture:FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

FORM I - IN

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B00J04

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP121

Matrix (soil/water):WATER Lab Sample ID:9103121004

Level (low/med): LOW Date Received:03/29/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	77.0	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	120	B		P
7440-47-3	Chromium	3.10	B		P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	25.3			P
7439-89-6	Iron	12500		N KJ	P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	29.8			P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N UJ	P
7440-23-5	Sodium	71.0	U		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U		P
7440-66-6	Zinc	144			P
	Cyanide	20.0	U		C

7-21-91
W Simely

Color Before:BROWN Clarity Before: Texture:FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

FORM I - IN

INORGANIC QC - Calibrations

Name C.J. Simiele Date 7-21-91

COMMENTS: Initial and continuing calibration is within required control limits. No instrument run log provided due to 2/88 CLP SOW used to produce package.

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

INORGANIC QC - Blanks

Name CJ Simiele Date 7-21-91

COMMENTS: Contaminants detected in initial and continuing calibration blank for Sb (26.5 ug/L) and Co (4.2) & Na (73.2 ug/L).

ACTION: Qualify all associated samples as per OSM guidelines.

sample #	constituent	value/qual
300J01	Co	4.2 u
B00J03	Co	8.6 u

sample #	constituent	value/qual

INORGANIC QC - ICS

Name C.J. Simiele Date 7-21-91

COMMENTS: ICS % recoveries are with in ±20% Control limits. No instrument run log provided but two ICS forms provided.

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

INORGANIC QC - Matrix Spike

Name CJ Simiele Date 7-21-91

COMMENTS: matrix spike % recoveries out of required control limits for Fe (216.7%) and Ag (41.2%). Post digestion spike % recovery is in required control limits for Fe.

ACTION: Qualify all associated samples as per OSM guidelines.

sample #	constituent	value/qual
B00J00	Fe	UJ
✓	Ag	UJ
00J01	Fe	J
✓	Ag	UJ
00J03	Fe	J
✓	Ag	J
00J04	Fe	J
✓	Ag	UJ

sample #	constituent	value/qual

INORGANIC QC - Duplicate Analysis

Name CJ Simiele Date 7-21-91

COMMENTS: All duplicate analysis RPDs are within required control limits.

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

INORGANIC QC - LCS

Name CJ Simiela Date 7-21-91

COMMENTS: All LCS % recoveries are within required control limits.

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

INORGANIC QC - Serial Dilution

Name CJ Simiele Date 7-21-91

COMMENTS: All detected constituents have concentrations less than x10 the IDL, therefore no control limits apply.

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

INORGANIC QC - GFAA

Name CJ Simiola Date 7-21-91

COMMENTS: None

ACTION: N/A

sample #	constituent	value/qual	sample #	constituent	value/qual

INORGANIC QC - Holding Times

Name CJ Simiele Date 7-21-91

COMMENTS: ICP analysis was performed 33 days after sampling. ICP holding time is six months. CJS 7-21-91

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

INORGANIC QC - other

Name CJ Simiele Date 7-21-91

COMMENTS: None

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

Westinghouse
Hanford Company

OSM RCRA LEVEL C DATA ASSESSMENT

DATE 7-21-91

SAMPLES/MATRIX B00J00 - organic liquids

REVIEWED BY C.J. Simuels

B00J01

LABORATORY Roy F Weston

B00J03

CASE #

B00J04

SDG # 91031L121

B00J06

DATA ASSESSMENT SUMMARY

QUALITY CONTROL CHECK	ANALYSIS	Anions	N/A	N/A
1.	Requested vs Reported	O		
2.	Holding Time	O		
3.	Matrix Spike	X		
4.	Duplicate Analysis	O		
5.	Analytical Blanks	O		
6.	Calibration	X		
7.	LCS	O		
8.				
9.				
10.				

O = data had no problems
X = data qualified due to minor problems
M = data qualified due to major problems/some data may be unusable

OVERALL ASSESSSMENT: fair, both matrix spike and calibration was not provided with data package.

NOTES:

o Refer to the corresponding attachments for explanation of any problems.

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/06/91

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

WESTON BATCH #: 9103L121

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	B00J00	Chloride by IC	0.50 u	mg/L	0.50
		Fluoride by IC	1.0 u	mg/L	1.0
		Nitrite by IC	0.50 u	mg/L	0.50
		Nitrate by IC	0.50 u	mg/L	0.50
		Phosphate by IC	0.50 u	mg/L	0.50
		Sulfate by IC	0.50 u	mg/L	0.50
		Flash Point	22.3	DEG/F	20.0
-002	B00J01	Chloride by IC	0.50 u	mg/L	0.50
		Fluoride by IC	414	mg/L	100
		Nitrite by IC	0.50 u	mg/L	0.50
		Nitrate by IC	0.50 u	mg/L	0.50
		Phosphate by IC	0.50 u	mg/L	0.50
		Sulfate by IC	0.97	mg/L	0.50
		Flash Point	59.3	DEG/F	20.0
-003	B00J03	Chloride by IC	17.4	mg/L	0.50
		Fluoride by IC	11.6	mg/L	1.0
		Nitrite by IC	3.2	mg/L	0.50
		Nitrate by IC	7.6	mg/L	0.50
		Phosphate by IC	0.50 u	mg/L	0.50
		Sulfate by IC	9.2	mg/L	0.50
		Flash Point	29.3	DEG/F	20.0
-004	B00J04	Chloride by IC	0.50 u	mg/L	0.50
		Fluoride by IC	358	mg/L	100
		Nitrite by IC	0.50 u	mg/L	0.50
		Nitrate by IC	0.50 u	mg/L	0.50
		Phosphate by IC	0.50 u	mg/L	0.50
		Sulfate by IC	0.55	mg/L	0.50
		Flash Point	59.2	DEG/F	20.0

ROY F. WESTON INC.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 05/06/91

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

WESTON BATCH #: 9103L121

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
BLANK1	91LIC37-MB1	Chloride by IC	0.25 u	mg/L	0.25
		Fluoride by IC	0.50 u	mg/L	0.50
		Nitrite by IC	0.25 u	mg/L	0.25
		Nitrate by IC	0.25 u	mg/L	0.25
		Phosphate by IC	0.25 u	mg/L	0.25
		Sulfate by IC	0.25 u	mg/L	0.25

ROY F. WESTON INC.

INORGANICS ACCURACY REPORT 05/06/91

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

WESTON BATCH #: 9103L121

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV
BLANK1	91LIC37-MB1	Chloride by IC	5.2	0.25u	5.0	104
		Fluoride by IC	12.0	0.50u	10.0	120
		Nitrite by IC	5.5	0.25u	5.0	109
		Nitrate by IC	5.3	0.25u	5.0	106
		Phosphate by IC	5.2	0.25u	5.0	105
		Sulfate by IC	5.3	0.25u	5.0	106
BLANK10	91LFP016-MB1	Flash Point	76.3	0.00	77.0	99.1
BLANK20	91LFP016-MB2	Flash Point	75.2	0.00	77.0	97.7

ROY F. WESTON INC.

INORGANICS PRECISION REPORT 05/06/91

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

WESTON BATCH #: 9103L121

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	% DIFF
-002REP	B00J01	Flash Point	59.3	58.2	1.8

RCRA LEVEL C QC

Name C.J. Simiele Date 7-21-91

QC Check: Requested VS Reported Analysis

COMMENTS: Requested Analysis / Anions
Reported Analysis / Anions

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

___ of ___

RCRA LEVEL C QC

Name C.J. Simiele Date 7-21-91

QC Check: Holding Time

COMMENTS: Analysis peformed 22 days after sampling

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

___ of ___

RCRA LEVEL C QC

Name C.J. Simiele Date 7-21-91

QC Check: Matrix Spike

COMMENTS: No matrix spike data provided with data package.

ACTION: None- user should be aware no ms was provided with data. an matrix affect problems may exist with data.

sample #	constituent	value/qual	sample #	constituent	value/qual

___ of ___

RCRA LEVEL C QC

Name C.J. Simiele Date 7-21-91

QC Check: Duplicate Analysis

COMMENTS: Replicate analysis performed with analysis, all % recoveries were with in ±20% control limits

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

___ of ___

RCRA LEVEL C QC

Name CJ Simiele Date 7-21-91

QC Check: Analytical Blanks

COMMENTS: No Contaminants detected in preparation blank

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

___ of ___

RCRA LEVEL C QC

Name C.J. Simiele Date 7-21-91

QC Check: Calibration

COMMENTS: No calibration data provided with package.

ACTION: None - user should use data with caution, although QC analysis provided is generally with in control limits no calibration information was provided

sample #	constituent	value/qual	sample #	constituent	value/qual

___ of ___

RCRA LEVEL C QC

Name CJ Simiele Date 7-21-91

QC Check: Laboratory Control Samples

COMMENTS: One LCS (~~matrix~~ CJS 7-21-91 blank spike) was performed with sample delivery group. all % recoveries are within ±20% control limits

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

___ of ___