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

Report Date: 04/18/91 10:29

RFW Batch Number: 9104L227 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Page: 1a

FEB 1996 RECEIVED EDMC

	Cust ID:	BOOJ10	BOOJ16	BOOJ18	BOOJ18	BOOJ18	VBLK
Sample Information	RFW#:	001	003	005	005 MS	005 MSD	91LVX057-MB1
	Matrix:	DRUM	DRUM	DRUM	DRUM	DRUM	SOIL
	D.F.:	62500	312	62500	62500	62500	1.25
	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 %	104 %
	Bromofluorobenzene	D %	D %	D %	D %	D %	102 %
	1,2-Dichloroethane-d4	D %	D %	D %	D %	D %	101 %

Chloromethane	0.62E+08	U	310000	U	0.62E+08	U	0.62E+08	U	0.62E+08	U	1200	U
Bromomethane	0.62E+08	U	310000	U	0.62E+08	U	0.62E+08	U	0.62E+08	U	1200	U
Vinyl Chloride	0.62E+08	U	310000	U	0.62E+08	U	0.62E+08	U	0.62E+08	U	1200	U
Chloroethane	0.62E+08	U	310000	U	0.62E+08	U	0.62E+08	U	0.62E+08	U	1200	U
Methylene Chloride	0.27E+09	B	780000	B	0.20E+09	B	0.13E+09	B	0.81E+08	B	3100	
Acetone	0.24E+09	B	910000	B	0.17E+09	B	0.13E+09	B	0.16E+09	B	3700	
Carbon Disulfide	0.31E+08	U	160000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U	620	U
1,1-Dichloroethene	0.31E+08	U	160000	U	0.31E+08	U	71 %		67 %		620	U
1,1-Dichloroethane	0.31E+08	U	160000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U	620	U
1,2-Dichloroethene (total)	0.31E+08	U	160000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U	620	U
Chloroform	0.31E+08	U	160000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U	620	U
1,2-Dichloroethane	0.31E+08	U	160000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U	620	U
2-Butanone	0.62E+08	U	310000	U	0.62E+08	U	0.62E+08	U	0.62E+08	U	1200	U
1,1,1-Trichloroethane	0.31E+08	U	160000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U	620	U
Carbon Tetrachloride	0.31E+08	U	160000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U	620	U
Vinyl Acetate	0.62E+08	U	310000	U	0.62E+08	U	0.62E+08	U	0.62E+08	U	1200	U
Bromodichloromethane	0.31E+08	U	160000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U	620	U
1,2-Dichloropropane	0.31E+08	U	160000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U	620	U
cis-1,3-Dichloropropene	0.31E+08	U	160000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U	620	U
Trichloroethene	0.31E+08	U	160000	U	0.31E+08	U	100 %		101 %		620	U
Dibromochloromethane	0.31E+08	U	160000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U	620	U
1,1,2-Trichloroethane	0.31E+08	U	160000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U	620	U
Benzene	0.31E+08	U	160000	U	0.31E+08	U	103 %		106 %		620	U
Trans-1,3-Dichloropropene	0.31E+08	U	160000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U	620	U
Bromoform	0.31E+08	U	160000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U	620	U
4-Methyl-2-pentanone	0.10E+10		4100000		0.96E+09		0.10E+10	J	0.10E+10		1200	U
2-Hexanone	0.62E+08	U	310000	U	0.62E+08	U	0.62E+08	U	0.62E+08	U	1200	U
Tetrachloroethene	0.31E+08	U	160000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U	620	U
1,1,2,2-Tetrachloroethane	0.31E+08	U	160000	U	0.31E+08	U	0.31E+08	U	0.31E+08	U	620	U

* Outside of EPA CLP QC limits.

00043724
9104L227-WS1041
00000
START

Cust ID:	BOOJ10	BOOJ16	BOOJ18	BOOJ18	BOOJ18	VBLK
RFW#:	001	003	005	005 MS	005 MSD	91LVX057-MB1
Level:	MED	MED	MED	MED	MED	MED
Toluene	0.31E+08 U	160000 U	0.31E+08 U	101 %	105 %	620 U
Chlorobenzene	0.31E+08 U	160000 U	0.31E+08 U	100 %	102 %	620 U
Ethylbenzene	0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U
Styrene	0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U
Xylene (total)	0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U

*= Outside of EPA CLP QC limits.

0000005

9634210220

9613424.0221 8A

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 04-10-91
RFW #: 9104L227, GC/MS VOLATILE
W.O. #: 6168-02-01

NARRATIVE

The set of samples consisted of three (3) drum samples collected on 04-08-91.

The samples were analyzed according to criteria set forth in CLP SOW 02/88 (Rev. 05/89) for TCL Volatile target compounds on 04-15,16-91.

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 samples required dilutions and medium level analyses because they contained high levels of both target and non-target compounds:

Sample ID	Dilution Factor
B00J10	50,000 and Medium
B00J16	250 and Medium
B00J18, MS, MSD	50,000 and Medium

3. All obtainable surrogate recoveries were within EPA QC limits.

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

5. The laboratory blanks contained the common contaminants methylene chloride and acetone at levels less than 5x the CRQL.

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

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

6-10-9
Date

9613424.0222

1A

VOLATILE ORGANICS ANALYSIS SHEET 0000019

CLIENT SAMPLE NO.

BOOJ10

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-001

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

Lab File ID: AX4F14

Level: (low/med) MED

Date Received: 04/10/91

% Moisture: not dec. 0

Date Analyzed: 04/15/91

Column: (pack/cap) CAP

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	0.27E+09	B
67-64-1	Acetone	0.24E+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	0.10E+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

9613424.0223

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

0000020

CLIENT SAMPLE NO.

BOOJ10

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-001

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

Lab File ID: AX4F14

Level: (low/med) MED

Date Received: 04/10/91

% Moisture: not dec. 0

Date Analyzed: 04/15/91

Column: (pack/cap) CAP

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.				

9613424.0224

1A

VOLATILE ORGANICS ANALYSIS SHEET 0000027

CLIENT SAMPLE NO.

B00J16

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-003

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

Lab File ID: AX4G14

Level: (low/med) MED

Date Received: 04/10/91

% Moisture: not dec. 0

Date Analyzed: 04/16/91

Column: (pack/cap) CAP

Dilution Factor: 312

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	310000	U
74-83-9	Bromomethane	310000	U
75-01-4	Vinyl Chloride	310000	U
75-00-3	Chloroethane	310000	U
75-09-2	Methylene Chloride	780000	B
67-64-1	Acetone	910000	B
75-15-0	Carbon Disulfide	160000	U
75-35-4	1,1-Dichloroethene	160000	U
75-34-3	1,1-Dichloroethane	160000	U
540-59-0	1,2-Dichloroethene (total)	160000	U
67-66-3	Chloroform	160000	U
107-06-2	1,2-Dichloroethane	160000	U
78-93-3	2-Butanone	310000	U
71-55-6	1,1,1-Trichloroethane	160000	U
56-23-5	Carbon Tetrachloride	160000	U
108-05-4	Vinyl Acetate	310000	U
75-27-4	Bromodichloromethane	160000	U
78-87-5	1,2-Dichloropropane	160000	U
10061-01-5	cis-1,3-Dichloropropene	160000	U
79-01-6	Trichloroethene	160000	U
124-48-1	Dibromochloromethane	160000	U
79-00-5	1,1,2-Trichloroethane	160000	U
71-43-2	Benzene	160000	U
10061-02-6	Trans-1,3-Dichloropropene	160000	U
75-25-2	Bromoform	160000	U
108-10-1	4-Methyl-2-pentanone	4100000	
591-78-6	2-Hexanone	310000	U
127-18-4	Tetrachloroethene	160000	U
79-34-5	1,1,2,2-Tetrachloroethane	160000	U
108-88-3	Toluene	160000	U
108-90-7	Chlorobenzene	160000	U
100-41-4	Ethylbenzene	160000	U
100-42-5	Styrene	160000	U
1330-20-7	Xylene (total)	160000	U

9613424.0225

IE

CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

0000028

BOOJ16

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-003

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

Lab File ID: AX4G14

Level: (low/med) MED

Date Received: 04/10/91

% Moisture: not dec. 0

Date Analyzed: 04/16/91

Column: (pack/cap) CAP

Dilution Factor: 312

Number TICs found: 10

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALKANE	20.45	6000000	J
2.	ALKANE	20.90	2000000	J
3.	ALKANE	21.15	1000000	J
4.	ALKANE	21.54	3000000	J
5.	ALKANE	22.60	2000000	J
6.	UNKNOWN	22.83	700000	J
7.	ALKANE	22.99	4000000	J
8.	ALKANE	23.65	4000000	J
9.	ALKANE	23.92	2000000	J
10.	ALKANE	24.33	2000000	J

9413424.0226

1A

VOLATILE ORGANICS ANALYSIS SHEET 0000046

CLIENT SAMPLE NO.

BOOJ18

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-005

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

Lab File ID: AX4F16

Level: (low/med) MED

Date Received: 04/10/91

% Moisture: not dec. 0

Date Analyzed: 04/15/91

Column: (pack/cap) CAP

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	0.20E+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	0.96E+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

9413424.0227

0000047

CLIENT SAMPLE NO.

BOOJ18

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-005

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

Lab File ID: AX4F16

Level: (low/med) MED

Date Received: 04/10/91

% Moisture: not dec. 0

Date Analyzed: 04/15/91

Column: (pack/cap) CAP

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.				

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

RFW Batch Number: 9104L227 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000

	Cust ID:	B00J10	B00J10	B00J10	B00J16	B00J16	B00J18
Sample Information	RFW#:	001	001 MS	001 MSD	003	003 DL	005
	Matrix:	DRUM	DRUM	DRUM	DRUM	DRUM	DRUM
	D.F.:	100	100	100	100	2000	100
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Nitrobenzene-d5	83 %	97 %	97 %	85 %	D %	92 %
	2-Fluorobiphenyl	102 %	113 %	114 %	105 %	D %	113 %
	p-Terphenyl-d14	104 %	118 %	115 %	116 %	D %	119 %
	Phenol-d5	79 %	91 %	93 %	90 %	D %	84 %
	2-Fluorophenol	88 %	100 %	97 %	68 %	D %	96 %
	2,4,6-Tribromophenol	50 %	72 %	71 %	54 %	D %	57 %
		fl	fl	fl	fl	fl	fl
Phenol		1000000 U	92 * %	99 * %	1000000 U	NA	830000 U
bis(2-Chloroethyl)ether		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2-Chlorophenol		1000000 U	101 %	104 * %	1000000 U	NA	830000 U
1,3-Dichlorobenzene		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
1,4-Dichlorobenzene		1000000 U	117 * %	111 * %	1000000 U	NA	830000 U
Benzyl alcohol		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
1,2-Dichlorobenzene		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2-Methylphenol		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
bis(2-Chloroisopropyl)ether		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
4-Methylphenol		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
N-Nitroso-Di-n-propylamine		1000000 U	92 %	95 %	1000000 U	NA	830000 U
Hexachloroethane		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Nitrobenzene		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Isophorone		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2-Nitrophenol		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2,4-Dimethylphenol		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Benzoic acid		5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
bis(2-Chloroethoxy)methane		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2,4-Dichlorophenol		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
1,2,4-Trichlorobenzene		1000000 U	116 * %	116 * %	1000000 U	NA	830000 U
Naphthalene		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
4-Chloroaniline		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Hexachlorobutadiene		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
4-Chloro-3-methylphenol		1000000 U	72 %	76 %	1000000 U	NA	830000 U
2-Methylnaphthalene		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Hexachlorocyclopentadiene		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U

*= Outside of EPA CLP QC limits.

9613424.0228

Cust ID:	B00J10	B00J10	B00J10	B00J16	B00J16	B00J18
RFW#:	001	001 MS	001 MSD	003	003 DL	005
2,4,6-Trichlorophenol	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2,4,5-Trichlorophenol	5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
2-Chloronaphthalene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2-Nitroaniline	5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
Dimethylphthalate	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Acenaphthylene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2,6-Dinitrotoluene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
3-Nitroaniline	5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
Acenaphthene	1000000 U	107 %	114 %	1000000 U	NA	830000 U
2,4-Dinitrophenol	5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
4-Nitrophenol	5000000 U	26 %	32 %	5000000 U	NA	4200000 U
Dibenzofuran	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2,4-Dinitrotoluene	1000000 U	79 %	83 %	1000000 U	NA	830000 U
Diethylphthalate	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
4-Chlorophenyl-phenylether	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Fluorene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
4-Nitroaniline	5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
4,6-Dinitro-2-methylphenol	5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
N-Nitrosodiphenylamine (1)	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
4-Bromophenyl-phenylether	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Hexachlorobenzene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Pentachlorophenol	5000000 U	60 %	62 %	5000000 U	NA	4200000 U
Phenanthrene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Anthracene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Di-n-Butylphthalate	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Fluoranthene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Pyrene	1000000 U	127 %	125 %	1000000 U	NA	830000 U
Butylbenzylphthalate	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
3,3'-Dichlorobenzidine	2000000 U	2000000 U	2000000 U	2000000 U	NA	1700000 U
Benzo(a)anthracene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Chrysene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
bis(2-Ethylhexyl)phthalate	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Di-n-Octyl phthalate	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Benzo(b)fluoranthene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Benzo(k)fluoranthene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Benzo(a)pyrene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Indeno(1,2,3-cd)pyrene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Dibenzo(a,h)anthracene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Benzo(g,h,i)perylene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Tributylphosphate	1000000 U	1000000 U	1000000 U	E	0.12E+09	250000 J

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

9613424.0229

	Cust ID:	B00J18	SBLK	SBLK BS
Sample Information	RFW#:	005 RE	91LE0481-MB1	91LE0481-MB1
	Matrix:	DRUM	SOIL	SOIL
	D.F.:	100	100	100
	Units:	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Nitrobenzene-d5	96 %	89 %	96 %
	2-Fluorobiphenyl	102 %	98 %	102 %
	p-Terphenyl-d14	128 %	119 %	122 %
	Phenol-d5	109 %	105 %	105 %
	2-Fluorophenol	110 %	102 %	103 %
	2,4,6-Tribromophenol	83 %	84 %	98 %

Phenol	830000	U	1000000	U	106 *	%							
bis(2-Chloroethyl)ether	830000	U	1000000	U	1000000	U							
2-Chlorophenol	830000	U	1000000	U	107 *	%							
1,3-Dichlorobenzene	830000	U	1000000	U	1000000	U							
1,4-Dichlorobenzene	830000	U	1000000	U	97	%							
Benzyl alcohol	830000	U	1000000	U	1000000	U							
1,2-Dichlorobenzene	830000	U	1000000	U	1000000	U							
2-Methylphenol	830000	U	1000000	U	1000000	U							
bis(2-Chloroisopropyl)ether	830000	U	1000000	U	1000000	U							
4-Methylphenol	830000	U	1000000	U	1000000	U							
N-Nitroso-Di-n-propylamine	830000	U	1000000	U	93	%							
Hexachloroethane	830000	U	1000000	U	1000000	U							
Nitrobenzene	830000	U	1000000	U	1000000	U							
Isophorone	830000	U	1000000	U	1000000	U							
2-Nitrophenol	830000	U	1000000	U	1000000	U							
2,4-Dimethylphenol	830000	U	1000000	U	1000000	U							
Benzoic acid	4200000	U	5000000	U	5000000	U							
bis(2-Chloroethoxy)methane	830000	U	1000000	U	1000000	U							
2,4-Dichlorophenol	830000	U	1000000	U	1000000	U							
1,2,4-Trichlorobenzene	830000	U	1000000	U	107	%							
Naphthalene	830000	U	1000000	U	1000000	U							
4-Chloroaniline	830000	U	1000000	U	1000000	U							
Hexachlorobutadiene	830000	U	1000000	U	1000000	U							
4-Chloro-3-methylphenol	830000	U	1000000	U	110 *	%							
2-Methylnaphthalene	830000	U	1000000	U	1000000	U							
Hexachlorocyclopentadiene	830000	U	1000000	U	1000000	U							

*= Outside of EPA CLP QC limits.

9613424.0230

Cust ID:	B00J18	SBLK	SBLK BS
RFW#:	005 RE	91LE0481-MB1	91LE0481-MB1
2,4,6-Trichlorophenol	830000 U	1000000 U	1000000 U
2,4,5-Trichlorophenol	4200000 U	5000000 U	5000000 U
2-Chloronaphthalene	830000 U	1000000 U	1000000 U
2-Nitroaniline	4200000 U	5000000 U	5000000 U
Dimethylphthalate	830000 U	1000000 U	1000000 U
Acenaphthylene	830000 U	1000000 U	1000000 U
2,6-Dinitrotoluene	830000 U	1000000 U	1000000 U
3-Nitroaniline	4200000 U	5000000 U	5000000 U
Acenaphthene	830000 U	1000000 U	114 %
2,4-Dinitrophenol	4200000 U	5000000 U	5000000 U
4-Nitrophenol	4200000 U	5000000 U	97 %
Dibenzofuran	830000 U	1000000 U	1000000 U
2,4-Dinitrotoluene	830000 U	1000000 U	103 * %
Diethylphthalate	830000 U	1000000 U	1000000 U
4-Chlorophenyl-phenylether	830000 U	1000000 U	1000000 U
Fluorene	830000 U	1000000 U	1000000 U
4-Nitroaniline	4200000 U	5000000 U	5000000 U
4,6-Dinitro-2-methylphenol	4200000 U	5000000 U	5000000 U
N-Nitrosodiphenylamine (1)	830000 U	1000000 U	1000000 U
4-Bromophenyl-phenylether	830000 U	1000000 U	1000000 U
Hexachlorobenzene	830000 U	1000000 U	1000000 U
Pentachlorophenol	4200000 U	5000000 U	89 %
Phenanthrene	830000 U	1000000 U	1000000 U
Anthracene	830000 U	1000000 U	1000000 U
Di-n-Butylphthalate	830000 U	1000000 U	1000000 U
Fluoranthene	830000 U	1000000 U	1000000 U
Pyrene	830000 U	1000000 U	123 %
Butylbenzylphthalate	830000 U	1000000 U	1000000 U
3,3'-Dichlorobenzidine	1700000 U	2000000 U	2000000 U
Benzo(a)anthracene	830000 U	1000000 U	1000000 U
Chrysene	830000 U	1000000 U	1000000 U
bis(2-Ethylhexyl)phthalate	830000 U	1000000 U	1000000 U
Di-n-Octyl phthalate	830000 U	1000000 U	1000000 U
Benzo(b)fluoranthene	830000 U	1000000 U	1000000 U
Benzo(k)fluoranthene	830000 U	1000000 U	1000000 U
Benzo(a)pyrene	830000 U	1000000 U	1000000 U
Indeno(1,2,3-cd)pyrene	830000 U	1000000 U	1000000 U
Dibenzo(a,h)anthracene	830000 U	1000000 U	1000000 U
Benzo(g,h,i)perylene	830000 U	1000000 U	1000000 U
Tributylphosphate	250000 J	1000000 U	1000000 U

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

96134240231

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

RFW Batch Number: 9104L227 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 06/03/91 10:25 Page: 1a

	Cust ID:	B00J10	B00J10	B00J10	B00J16	B00J16	B00J18
Sample Information	RFW#:	001	001 MS	001 MSD	003	003 DL	005
	Matrix:	DRUM	DRUM	DRUM	DRUM	DRUM	DRUM
	D.F.:	100	100	100	100	2000	100
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Nitrobenzene-d5	83 %	97 %	97 %	85 %	D %	92 %
	2-Fluorobiphenyl	102 %	113 %	114 %	105 %	D %	113 %
	p-Terphenyl-d14	104 %	118 %	115 %	116 %	D %	119 %
	Phenol-d5	79 %	91 %	93 %	90 %	D %	84 %
	2-Fluorophenol	88 %	100 %	97 %	68 %	D %	96 %
	2,4,6-Tribromophenol	50 %	72 %	71 %	54 %	D %	57 %
		fl	fl	fl	fl	fl	fl
Phenol		1000000 U	92 * %	99 * %	1000000 U	NA	830000 U
bis(2-Chloroethyl)ether		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2-Chlorophenol		1000000 U	101 %	104 * %	1000000 U	NA	830000 U
1,3-Dichlorobenzene		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
1,4-Dichlorobenzene		1000000 U	117 * %	111 * %	1000000 U	NA	830000 U
Benzyl alcohol		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
1,2-Dichlorobenzene		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2-Methylphenol		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
bis(2-Chloroisopropyl)ether		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
4-Methylphenol		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
N-Nitroso-Di-n-propylamine		1000000 U	92 %	95 %	1000000 U	NA	830000 U
Hexachloroethane		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Nitrobenzene		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Isophorone		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2-Nitrophenol		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2,4-Dimethylphenol		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Benzoic acid		5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
bis(2-Chloroethoxy)methane		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2,4-Dichlorophenol		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
1,2,4-Trichlorobenzene		1000000 U	116 * %	116 * %	1000000 U	NA	830000 U
Naphthalene		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
4-Chloroaniline		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Hexachlorobutadiene		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
4-Chloro-3-methylphenol		1000000 U	72 %	76 %	1000000 U	NA	830000 U
2-Methylnaphthalene		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Hexachlorocyclopentadiene		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U

*= Outside of EPA CLP QC limits.

9613424.0232

Cust ID:	B00J10	B00J10	B00J10	B00J16	B00J16	B00J18
RFW#:	001	001 MS	001 MSD	003	003 DL	005
2,4,6-Trichlorophenol	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2,4,5-Trichlorophenol	5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
2-Chloronaphthalene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2-Nitroaniline	5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
Dimethylphthalate	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Acenaphthylene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2,6-Dinitrotoluene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
3-Nitroaniline	5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
Acenaphthene	1000000 U	107 %	114 %	1000000 U	NA	830000 U
2,4-Dinitrophenol	5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
4-Nitrophenol	5000000 U	26 %	32 %	5000000 U	NA	4200000 U
Dibenzofuran	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2,4-Dinitrotoluene	1000000 U	79 %	83 %	1000000 U	NA	830000 U
Diethylphthalate	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
4-Chlorophenyl-phenylether	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Fluorene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
4-Nitroaniline	5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
4,6-Dinitro-2-methylphenol	5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
N-Nitrosodiphenylamine (1)	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
4-Bromophenyl-phenylether	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Hexachlorobenzene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Pentachlorophenol	5000000 U	60 %	62 %	5000000 U	NA	4200000 U
Phenanthrene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Anthracene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Di-n-Butylphthalate	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Fluoranthene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Pyrene	1000000 U	127 %	125 %	1000000 U	NA	830000 U
Butylbenzylphthalate	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
3,3'-Dichlorobenzidine	2000000 U	2000000 U	2000000 U	2000000 U	NA	1700000 U
Benzo(a)anthracene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Chrysene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
bis(2-Ethylhexyl)phthalate	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Di-n-Octyl phthalate	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Benzo(b)fluoranthene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Benzo(k)fluoranthene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Benzo(a)pyrene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Indeno(1,2,3-cd)pyrene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Dibenzo(a,h)anthracene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Benzo(g,h,i)perylene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Tributylphosphate	1000000 U	1000000 U	1000000 U	E	0.12E+09	250000 J

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

9613424.0233

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

RFW Batch Number: 9104L227 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 06/03/91 10:25 Page: 2a

	Cust ID:	B00J18		SBLK		SBLK BS	
Sample Information	RFW#:	005 RE		91LE0481-MB1		91LE0481-MB1	
	Matrix:	DRUM		SOIL		SOIL	
	D.F.:	100		100		100	
	Units:	ug/Kg		ug/Kg		ug/Kg	
Surrogate Recovery	Nitrobenzene-d5	96	%	89	%	96	%
	2-Fluorobiphenyl	102	%	98	%	102	%
	p-Terphenyl-d14	128	%	119	%	122	%
	Phenol-d5	109	%	105	%	105	%
	2-Fluorophenol	110	%	102	%	103	%
	2,4,6-Tribromophenol	83	%	84	%	98	%
Phenol		830000	U	1000000	U	106 *	%
bis(2-Chloroethyl)ether		830000	U	1000000	U	1000000	U
2-Chlorophenol		830000	U	1000000	U	107 *	%
1,3-Dichlorobenzene		830000	U	1000000	U	1000000	U
1,4-Dichlorobenzene		830000	U	1000000	U	97	%
Benzyl alcohol		830000	U	1000000	U	1000000	U
1,2-Dichlorobenzene		830000	U	1000000	U	1000000	U
2-Methylphenol		830000	U	1000000	U	1000000	U
bis(2-Chloroisopropyl)ether		830000	U	1000000	U	1000000	U
4-Methylphenol		830000	U	1000000	U	1000000	U
N-Nitroso-Di-n-propylamine		830000	U	1000000	U	93	%
Hexachloroethane		830000	U	1000000	U	1000000	U
Nitrobenzene		830000	U	1000000	U	1000000	U
Isophorone		830000	U	1000000	U	1000000	U
2-Nitrophenol		830000	U	1000000	U	1000000	U
2,4-Dimethylphenol		830000	U	1000000	U	1000000	U
Benzoic acid		4200000	U	5000000	U	5000000	U
bis(2-Chloroethoxy)methane		830000	U	1000000	U	1000000	U
2,4-Dichlorophenol		830000	U	1000000	U	1000000	U
1,2,4-Trichlorobenzene		830000	U	1000000	U	107	%
Naphthalene		830000	U	1000000	U	1000000	U
4-Chloroaniline		830000	U	1000000	U	1000000	U
Hexachlorobutadiene		830000	U	1000000	U	1000000	U
4-Chloro-3-methylphenol		830000	U	1000000	U	110 *	%
2-Methylnaphthalene		830000	U	1000000	U	1000000	U
Hexachlorocyclopentadiene		830000	U	1000000	U	1000000	U

*= Outside of EPA CLP QC limits.

9613424.0234

Cust ID:	B00J18	SBLK	SBLK BS
RFW#:	005 RE	91LE0481-MB1	91LE0481-MB1
2,4,6-Trichlorophenol	830000 U	1000000 U	1000000 U
2,4,5-Trichlorophenol	4200000 U	5000000 U	5000000 U
2-Chloronaphthalene	830000 U	1000000 U	1000000 U
2-Nitroaniline	4200000 U	5000000 U	5000000 U
Dimethylphthalate	830000 U	1000000 U	1000000 U
Acenaphthylene	830000 U	1000000 U	1000000 U
2,6-Dinitrotoluene	830000 U	1000000 U	1000000 U
3-Nitroaniline	4200000 U	5000000 U	5000000 U
Acenaphthene	830000 U	1000000 U	114 %
2,4-Dinitrophenol	4200000 U	5000000 U	5000000 U
4-Nitrophenol	4200000 U	5000000 U	97 %
Dibenzofuran	830000 U	1000000 U	1000000 U
2,4-Dinitrotoluene	830000 U	1000000 U	103 * %
Diethylphthalate	830000 U	1000000 U	1000000 U
4-Chlorophenyl-phenylether	830000 U	1000000 U	1000000 U
Fluorene	830000 U	1000000 U	1000000 U
4-Nitroaniline	4200000 U	5000000 U	5000000 U
4,6-Dinitro-2-methylphenol	4200000 U	5000000 U	5000000 U
N-Nitrosodiphenylamine (1)	830000 U	1000000 U	1000000 U
4-Bromophenyl-phenylether	830000 U	1000000 U	1000000 U
Hexachlorobenzene	830000 U	1000000 U	1000000 U
Pentachlorophenol	4200000 U	5000000 U	89 %
Phenanthrene	830000 U	1000000 U	1000000 U
Anthracene	830000 U	1000000 U	1000000 U
Di-n-Butylphthalate	830000 U	1000000 U	1000000 U
Fluoranthene	830000 U	1000000 U	1000000 U
Pyrene	830000 U	1000000 U	123 %
Butylbenzylphthalate	830000 U	1000000 U	1000000 U
3,3'-Dichlorobenzidine	1700000 U	2000000 U	2000000 U
Benzo(a)anthracene	830000 U	1000000 U	1000000 U
Chrysene	830000 U	1000000 U	1000000 U
bis(2-Ethylhexyl)phthalate	830000 U	1000000 U	1000000 U
Di-n-Octyl phthalate	830000 U	1000000 U	1000000 U
Benzo(b)fluoranthene	830000 U	1000000 U	1000000 U
Benzo(k)fluoranthene	830000 U	1000000 U	1000000 U
Benzo(a)pyrene	830000 U	1000000 U	1000000 U
Indeno(1,2,3-cd)pyrene	830000 U	1000000 U	1000000 U
Dibenzo(a,h)anthracene	830000 U	1000000 U	1000000 U
Benzo(g,h,i)perylene	830000 U	1000000 U	1000000 U
Tributylphosphate	250000 J	1000000 U	1000000 U

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

9613424.0235

9613424.0236 8A

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 04-10-91
RFW #: 9104L227, SEMIVOLATILE
W.O. #: 6168-02-01

NARRATIVE

The set of samples consisted of three (3) drum liquid samples collected on 04-08-91.

The samples were extracted on 04-11-91 and analyzed according to criteria set forth in CLP SOW 2/88 (rev 5/89) for TCL Semivolatile target compounds and tributylphosphate on 04-18,22-91 and 05-31-91.

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

1. Sample B00J16 DL was analyzed outside the holding time.

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

3. Sample preparation using Waste Dilution protocols results in 100-fold dilutions relative to low level analyses. Sample B00J16 also required an additional 20-fold dilution for the compound Tributylphosphate.

4. All surrogate recoveries were within EPA QC limits.

5. Four (4) of eleven (11) blank spike recoveries were outside soil EPA QC limits. High recoveries were due to the use of the Waste Dilution protocols.

6. Seven (7) of twenty-two (22) matrix spike recoveries were outside soil EPA QC limits. Soil QC limits do not apply to drum samples. High recoveries were due to the use of the Waste Dilution protocols.

WESTON

6. Internal standard areas were outside QC limits for sample BOOJ10, BOOJ16, and BOOJ18. Sample BOOJ18 was re-analyzed on 04-22-91 and reported. The dilution required for sample BOOJ16 fulfilled its re-analysis requirement. The associated matrix spike and spike duplicate analyses for sample BOOJ10 fulfilled its re-analysis requirements.

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

6.79
Date

9613424.0238

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000023

CLIENT SAMPLE NO.

B00J10

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-001

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

Lab File ID: M041812

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/11/91

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

Date Analyzed: 04/18/91

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

9613424.0239

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000024

CLIENT SAMPLE NO.

B00J10

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-001

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

Lab File ID: M041812

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/11/91

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

Date Analyzed: 04/18/91

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

9613424.0240

1D

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000025

CLIENT SAMPLE NO.

B00J10

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-001

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

Lab File ID: M041812

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/11/91

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

Date Analyzed: 04/18/91

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.

9104L424.0241

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000026

CLIENT SAMPLE NO.

BOOJ10

Lab Name: Roy F. Weston, Inc. Work Order: 5168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-001

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

Lab File ID: M041812

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/11/91

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

Date Analyzed: 04/18/91

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.				

9613424.0242

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 0000033

CLIENT SAMPLE NO.

B00J16

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-003

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

Lab File ID: M041815

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/11/91

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

Date Analyzed: 04/18/91

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

9613424.0243

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 0000034

CLIENT SAMPLE NO.

B00J16

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9104L227-003

Sample wt/vol: 1.00 (g/mL) G Lab File ID: M041815

Level: (low/med) LOW Date Received: 04/10/91

% Moisture: not dec. 0 dec. Date Extracted: 04/11/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 04/18/91

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

9613424.0244

1D

SEMIVOLATILE ORGANICS ANALYSIS SHEET 0000035

CLIENT SAMPLE NO.

B00J16

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-003

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

Lab File ID: M041815

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/11/91

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

Date Analyzed: 04/18/91

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		E

FORM 1 SV-3

12/88 Rev.

9613424.0245

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS 000036

CLIENT SAMPLE NO.

B00J16

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-003

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

Lab File ID: M041815

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/11/91

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

Date Analyzed: 04/18/91

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

Dilution Factor: 100

Number TICs found: 22

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALKANE	6.23	40000000	J
2.	ALKANE	6.55	10000000	J
3.	ALKANE	6.77	10000000	J
4.	ALKANE	6.80	9000000	J
5.	ALKANE	7.08	10000000	J
6.	ALKANE	7.25	40000000	J
7.	ALKANE	7.40	20000000	J
8.	ALKANE	7.50	70000000	J
9.	ALKANE	7.82	70000000	J
10.	ALKANE	7.92	40000000	J
11.	ALKANE	8.15	40000000	J
12.	ALKANE	8.30	10000000	J
13.	ALKANE	8.37	10000000	J
14.	ALKANE	8.45	20000000	J
15.	ALKANE	8.85	9000000	J
16.	ALKANE	9.52	20000000	J
17.	ALKANE	9.98	10000000	J
18.	ALKANE	10.20	4000000	J
19.	ALKANE	11.07	5000000	J
20.	ALKANE	11.45	5000000	J
21.	ALKANE	12.52	3000000	J
22.	ALKANE	12.82	3000000	J

9613424.0246

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000069

CLIENT SAMPLE NO.

B00J16DL

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-003 DL

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

Lab File ID: V053105

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/11/91

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

Date Analyzed: 05/31/91

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

Dilution Factor: 2000

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

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

9613424.0247

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000070

CLIENT SAMPLE NO.

B00J16DL

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-003 DL

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

Lab File ID: V053105

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/11/91

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

Date Analyzed: 05/31/91

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

Dilution Factor: 2000

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

(1) - Cannot be separated from Diphenylamine

9613424.0248

ID

SEMIVOLATILE ORGANICS ANALYSIS SHEET 0000071

CLIENT SAMPLE NO.

B00J16DL

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-003 DL

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

Lab File ID: V053105

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/11/91

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

Date Analyzed: 05/31/91

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

Dilution Factor: 2000

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

CAS NO.	COMPOUND		
126-73-8--------	Tributylphosphate	0.12E+09	

FORM 1 SV-3

12/88 Rev.

9613424.0249

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

3000072

CLIENT SAMPLE NO.

B00J16DL

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-003 DL

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

Lab File ID: V053105

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/11/91

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

Date Analyzed: 05/31/91

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

Dilution Factor: 2000

Number TICs found: 0

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

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

9613424.0250

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000081

CLIENT SAMPLE NO.

B00J18

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-005

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: M041816

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/11/91

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

Date Analyzed: 04/18/91

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	830000	U
111-44-4	bis(2-Chloroethyl)ether	830000	U
95-57-8	2-Chlorophenol	830000	U
541-73-1	1,3-Dichlorobenzene	830000	U
106-46-7	1,4-Dichlorobenzene	830000	U
100-51-6	Benzyl alcohol	830000	U
95-50-1	1,2-Dichlorobenzene	830000	U
95-48-7	2-Methylphenol	830000	U
108-60-1	bis(2-Chloroisopropyl)ether	830000	U
106-44-5	4-Methylphenol	830000	U
621-64-7	N-Nitroso-Di-n-propylamine	830000	U
67-72-1	Hexachloroethane	830000	U
98-95-3	Nitrobenzene	830000	U
78-59-1	Isophorone	830000	U
88-75-5	2-Nitrophenol	830000	U
105-67-9	2,4-Dimethylphenol	830000	U
65-85-0	Benzoic acid	4200000	U
111-91-1	bis(2-Chloroethoxy)methane	830000	U
120-83-2	2,4-Dichlorophenol	830000	U
120-82-1	1,2,4-Trichlorobenzene	830000	U
91-20-3	Naphthalene	830000	U
106-47-8	4-Chloroaniline	830000	U
87-68-3	Hexachlorobutadiene	830000	U
59-50-7	4-Chloro-3-methylphenol	830000	U
91-57-6	2-Methylnaphthalene	830000	U
77-47-4	Hexachlorocyclopentadiene	830000	U
88-06-2	2,4,6-Trichlorophenol	830000	U
95-95-4	2,4,5-Trichlorophenol	4200000	U
91-58-7	2-Chloronaphthalene	830000	U
88-74-4	2-Nitroaniline	4200000	U
131-11-3	Dimethylphthalate	830000	U
208-96-8	Acenaphthylene	830000	U
606-20-2	2,6-Dinitrotoluene	830000	U

9613424.0251

IC

SEMIVOLATILE ORGANICS ANALYSIS SHEET 0000082

CLIENT SAMPLE NO.

B00J18

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-005

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: M041816

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/11/91

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

Date Analyzed: 04/18/91

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	4200000	U
83-32-9	Acenaphthene	830000	U
51-28-5	2,4-Dinitrophenol	4200000	U
100-02-7	4-Nitrophenol	4200000	U
132-64-9	Dibenzofuran	830000	U
121-14-2	2,4-Dinitrotoluene	830000	U
84-66-2	Diethylphthalate	830000	U
7005-72-3	4-Chlorophenyl-phenylether	830000	U
86-73-7	Fluorene	830000	U
100-01-6	4-Nitroaniline	4200000	U
534-52-1	4,6-Dinitro-2-methylphenol	4200000	U
86-30-6	N-Nitrosodiphenylamine (1)	830000	U
101-55-3	4-Bromophenyl-phenylether	830000	U
118-74-1	Hexachlorobenzene	830000	U
87-86-5	Pentachlorophenol	4200000	U
85-01-8	Phenanthrene	830000	U
120-12-7	Anthracene	830000	U
84-74-2	Di-n-Butylphthalate	830000	U
206-44-0	Fluoranthene	830000	U
129-00-0	Pyrene	830000	U
85-68-7	Butylbenzylphthalate	830000	U
91-94-1	3,3'-Dichlorobenzidine	1700000	U
56-55-3	Benzo(a)anthracene	830000	U
218-01-9	Chrysene	830000	U
117-81-7	bis(2-Ethylhexyl)phthalate	830000	U
117-84-0	Di-n-Octyl phthalate	830000	U
205-99-2	Benzo(b)fluoranthene	830000	U
207-08-9	Benzo(k)fluoranthene	830000	U
50-32-8	Benzo(a)pyrene	830000	U
193-39-5	Indeno(1,2,3-cd)pyrene	830000	U
53-70-3	Dibenzo(a,h)anthracene	830000	U
191-24-2	Benzo(g,h,i)perylene	830000	U

(1) - Cannot be separated from Diphenylamine

9015424.0252

1D

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000083

CLIENT SAMPLE NO.

B00J18

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-005

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: M041816

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/11/91

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

Date Analyzed: 04/18/91

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	250000	J

FORM 1 SV-3

12/88 Rev.

9013424.0253

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS 000084

CLIENT SAMPLE NO.

B00J18

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-005

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: M041816

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/11/91

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

Date Analyzed: 04/18/91

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

Dilution Factor: 100

Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALKANE	6.22	200000	J
2.	ALKANE	7.48	200000	J
3.	ALKANE	7.82	200000	J
4.	UNKNOWN	10.57	200000	J
5.	UNKNOWN	11.00	500000	J

9613424.0254

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000099

CLIENT SAMPLE NO.

B00J18RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-005 RE

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: S042212

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/11/91

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

Date Analyzed: 04/22/91

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	830000	U
111-44-4	bis(2-Chloroethyl)ether	830000	U
95-57-8	2-Chlorophenol	830000	U
541-73-1	1,3-Dichlorobenzene	830000	U
106-46-7	1,4-Dichlorobenzene	830000	U
100-51-6	Benzyl alcohol	830000	U
95-50-1	1,2-Dichlorobenzene	830000	U
95-48-7	2-Methylphenol	830000	U
108-60-1	bis(2-Chloroisopropyl)ether	830000	U
106-44-5	4-Methylphenol	830000	U
621-64-7	N-Nitroso-Di-n-propylamine	830000	U
67-72-1	Hexachloroethane	830000	U
98-95-3	Nitrobenzene	830000	U
78-59-1	Isophorone	830000	U
88-75-5	2-Nitrophenol	830000	U
105-67-9	2,4-Dimethylphenol	830000	U
65-85-0	Benzoic acid	4200000	U
111-91-1	bis(2-Chloroethoxy)methane	830000	U
120-83-2	2,4-Dichlorophenol	830000	U
120-82-1	1,2,4-Trichlorobenzene	830000	U
91-20-3	Naphthalene	830000	U
106-47-8	4-Chloroaniline	830000	U
87-68-3	Hexachlorobutadiene	830000	U
59-50-7	4-Chloro-3-methylphenol	830000	U
91-57-6	2-Methylnaphthalene	830000	U
77-47-4	Hexachlorocyclopentadiene	830000	U
88-06-2	2,4,6-Trichlorophenol	830000	U
95-95-4	2,4,5-Trichlorophenol	4200000	U
91-58-7	2-Chloronaphthalene	830000	U
88-74-4	2-Nitroaniline	4200000	U
131-11-3	Dimethylphthalate	830000	U
208-96-8	Acenaphthylene	830000	U
606-20-2	2,6-Dinitrotoluene	830000	U

9613424.0255

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 0000100

CLIENT SAMPLE NO.

B00J18RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-005 RE

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: S042212

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/11/91

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

Date Analyzed: 04/22/91

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	4200000	U
83-32-9	Acenaphthene	830000	U
51-28-5	2,4-Dinitrophenol	4200000	U
100-02-7	4-Nitrophenol	4200000	U
132-64-9	Dibenzofuran	830000	U
121-14-2	2,4-Dinitrotoluene	830000	U
84-66-2	Diethylphthalate	830000	U
7005-72-3	4-Chlorophenyl-phenylether	830000	U
86-73-7	Fluorene	830000	U
100-01-6	4-Nitroaniline	4200000	U
534-52-1	4,6-Dinitro-2-methylphenol	4200000	U
86-30-6	N-Nitrosodiphenylamine (1)	830000	U
101-55-3	4-Bromophenyl-phenylether	830000	U
118-74-1	Hexachlorobenzene	830000	U
87-86-5	Pentachlorophenol	4200000	U
85-01-8	Phenanthrene	830000	U
120-12-7	Anthracene	830000	U
84-74-2	Di-n-Butylphthalate	830000	U
206-44-0	Fluoranthene	830000	U
129-00-0	Pyrene	830000	U
85-68-7	Butylbenzylphthalate	830000	U
91-94-1	3,3'-Dichlorobenzidine	1700000	U
56-55-3	Benzo(a)anthracene	830000	U
218-01-9	Chrysene	830000	U
117-81-7	bis(2-Ethylhexyl)phthalate	830000	U
117-84-0	Di-n-Octyl phthalate	830000	U
205-99-2	Benzo(b)fluoranthene	830000	U
207-08-9	Benzo(k)fluoranthene	830000	U
50-32-8	Benzo(a)pyrene	830000	U
193-39-5	Indeno(1,2,3-cd)pyrene	830000	U
53-70-3	Dibenzo(a,h)anthracene	830000	U
191-24-2	Benzo(g,h,i)perylene	830000	U

(1) - Cannot be separated from Diphenylamine

1D

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000101

CLIENT SAMPLE NO.

B00J18RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-005 RE

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: S042212

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/11/91

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

Date Analyzed: 04/22/91

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	250000	J

FORM 1 SV-3

12/88 Rev.

9613424.0257

IF

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

6U00102

CLIENT SAMPLE NO.

B00J18RE

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-005 RE

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: S042212

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/11/91

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

Date Analyzed: 04/22/91

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.				

Roy F. Weston, Inc. - Lionville Laboratory
PCBs by GC

Report Date: 05/22/91 09:05

RFW Batch Number: 9104L227 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Page: 1

	Cust ID:	BOOJ10	BOOJ10	BOOJ10	BOOJ11	BOOJ16	BOOJ17
Sample Information	RFW#:	001	001 MS	001 MSD	002	003	004
	Matrix:	DRUM	DRUM	DRUM	DRUM	DRUM	DRUM
	D.F.:	0.500	0.500	0.500	0.500	0.500	0.500
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate: Di-n-butylchlorendate		100 %	99 %	I %	101 %	98 %	101 %
Aroclor-1016		12000 U	12000 U	12000 U	12000 U	12000 U	12000 U
Aroclor-1221		12000 U	12000 U	12000 U	12000 U	12000 U	12000 U
Aroclor-1232		12000 U	12000 U	12000 U	12000 U	12000 U	12000 U
Aroclor-1242		12000 U	12000 U	12000 U	12000 U	12000 U	12000 U
Aroclor-1248		12000 U	12000 U	12000 U	12000 U	12000 U	12000 U
Aroclor-1254		24000 U	85 %	91 %	24000 U	24000 U	24000 U
Aroclor-1260		24000 U	24000 U	24000 U	24000 U	24000 U	24000 U

	Cust ID:	BOOJ18	PBLK	PBLK BS
Sample Information	RFW#:	005	91LE0480-MB1	91LE0480-MB1
	Matrix:	DRUM	SOIL	SOIL
	D.F.:	0.500	0.500	0.500
	Units:	ug/Kg	ug/Kg	ug/Kg
Surrogate: Di-n-butylchlorendate		101 %	108 %	101 %
Aroclor-1016		12000 U	12000 U	12000 U
Aroclor-1221		12000 U	12000 U	12000 U
Aroclor-1232		12000 U	12000 U	12000 U
Aroclor-1242		12000 U	12000 U	12000 U
Aroclor-1248		12000 U	12000 U	12000 U
Aroclor-1254		24000 U	24000 U	96 %
Aroclor-1260		24000 U	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

4 0000 0

9613H24.0259 7A

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 04-10-91
RFW #: 9104L227, PCB
W.O. #: 6168-02-01

NARRATIVE

The set of samples consisted of five (5) drum samples collected on 04-08-91.

The samples were extracted on 04-11-91 and analyzed according to criteria set forth in the Contract Laboratory Program for PCB target compounds on 05-20-91.

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 were met on both the primary and confirmation columns.

3. Retention time criteria were met for all compounds on both the primary and confirmation column.

4. All obtainable 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

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

6.3.91
Date

9613424.0260

1D

PESTICIDE ORGANICS ANALYSIS SHEET 0000012

CLIENT SAMPLE NO.

BOOJ10

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-001

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

Lab File ID: BLK0608H.01

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/11/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/20/91

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.

9013421.0261

1D

PESTICIDE ORGANICS ANALYSIS SHEET 0000015

CLIENT SAMPLE NO.

BOOJ11

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-002

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

Lab File ID: BLK0608H.01

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/11/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/20/91

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.

9613424.0262

1D

PESTICIDE ORGANICS ANALYSIS SHEET 0000018

CLIENT SAMPLE NO.

BOOJ16

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-003

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

Lab File ID: BLK0608H.01

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/11/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/20/91

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.

9613424.0263

PESTICIDE ORGANICS ANALYSIS SHEET 0000021

CLIENT SAMPLE NO.

BOOJ17

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-004

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

Lab File ID: BLK0608H.01

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/11/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/20/91

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.

9613424.0264

1D

PESTICIDE ORGANICS ANALYSIS SHEET 0000024

CLIENT SAMPLE NO.

BOOJ18

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

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L227-005

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

Lab File ID: BLK0608H.01

Level: (low/med) LOW

Date Received: 04/10/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/11/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/20/91

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.

WESTON

Roy F. Weston, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 4/10,4/12,4/18, 4/24 & 4/26/91
RFW #: 9104L227, 9104L268, 9104L326 9104L382, 9104L402 METALS
W.O.#: 6168-02-01

METALS NARRATIVE

The set of samples consisted of (17) drum liquid samples collected on 4/8, 4/10, 4/16, 4/22 and 4/24/91.

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 Sb, Ba, Be, Cd, Cr, Co, Cu, Mn, Ni, Ag and V. All corresponding samples were flagged with an "N" according to CLP protocol.

WESTON

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

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

6-4-91
Date

9613424.0267

0000017

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ12

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104268001

Level (low/med): LOW Date Received:04/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	199	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	282	B		P
7440-47-3	Chromium	3.40	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.30	B	N	P
7439-89-6	Iron	156			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	132	B		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	69.0		*E	P
	Cyanide				C

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ13

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104268002

Level (low/med): LOW Date Received:04/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	136	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	322	B		P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	12.1	B	N	P
7439-89-6	Iron	286			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	3.10	B	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	P
7440-09-7	Potassium	1690	B		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	183	B		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	48.9		*E	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ14

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104268003

Level (low/med): LOW Date Received:04/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	127	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	350	B		P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	11.2	B	N	P
7439-89-6	Iron	216			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00		N	P
7439-97-6	Mercury				
7440-02-0	Nickel	13.2	B	N	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	356	B		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	53.7		*E	P
	Cyanide				

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. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104268004

Level (low/med): LOW Date Received:04/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	295			P
7440-36-0	Antimony	42.8	B	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	297	B		P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	11.6	B	N	P
7439-89-6	Iron	195			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	15.4	B	N	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	231	B	.	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	52.0		*E	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ19

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104268005

Level (low/med): LOW Date Received:04/12/91

% 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	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	408	B		P
7440-47-3	Chromium	4.40	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	25.9		N	P
7439-89-6	Iron	834			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	94.0		N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	380	B		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	93.0		*E	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ46

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104326001

Level (low/med): LOW Date Received:04/18/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	95.8	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	480	B		P
7440-47-3	Chromium	4.60	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	36.5		N	P
7439-89-6	Iron	204			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	7.70	B	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	11.4	B	N	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	898	B		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	867		*E	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ47

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104326002

Level (low/med): LOW Date Received:04/18/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	128	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	325	B		P
7440-47-3	Chromium	3.20	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	15.8	B	N	P
7439-89-6	Iron	3380			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	3.70	B	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	9.90	B		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	98.5	B		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	782		*E	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B00J07

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104382001

Level (low/med): LOW Date Received:04/24/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	124	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	335	B		P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.60	B	N	P
7439-89-6	Iron	2680			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	20.0		N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	335	B		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	30.6		*E	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

DB00J45

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104382002

Level (low/med): LOW Date Received:04/24/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	575			P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	368	B		P
7440-47-3	Chromium	18.0		N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.80	B	N	P
7439-89-6	Iron	404			P
7439-92-1	Lead				
7439-95-4	Magnesium	1300	B		P
7439-96-5	Manganese	4.20	B	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	8.30	B	N	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	347	B		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	43.8		*E	P
	Cyanide				

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.

BOOJ39

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104402001

Level (low/med): LOW Date Received:04/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	87.3	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	242	B		P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.00	U	N	P
7439-89-6	Iron	146			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	78.5	B		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	51.2		*E	P
	Cyanide				

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.

BOOV48

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104402002

Level (low/med): LOW Date Received:04/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	83.5	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	290	B		P
7440-47-3	Chromium	6.00	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.80	B	N	P
7439-89-6	Iron	169			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	136	B		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	38.8		*E	P
	Cyanide				

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.

BOOV49

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104402003

Level (low/med): LOW Date Received:04/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	118	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	339	B		P
7440-47-3	Chromium	3.40	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.30	B	N	P
7439-89-6	Iron	197			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	3.00	B	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	P
7440-09-7	Potassium	1100	B		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	1130	B		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	49.1		*E	P
	Cyanide				

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.

BOOV50

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104402004

Level (low/med): LOW Date Received:04/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	109	B		P
7440-36-0	Antimony	29.0	B	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	293	B		P
7440-47-3	Chromium	3.60	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.30	B	N	P
7439-89-6	Iron	131			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	73.5	B		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	126		*E	P
	Cyanide				

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.

BOOV51

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104402005

Level (low/med): LOW Date Received:04/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	87.3	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	308	B		P
7440-47-3	Chromium	5.90	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	10.8	B	N	P
7439-89-6	Iron	123			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.20	B	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	25.7	B	N	P
7440-09-7	Potassium	1050	B		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	442	B		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	41.3		*E	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

WESTON

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE SAMPLES RECEIVED: 04/10/91
RFW #: 9104L227 GC SCAN (HYDROCARBON FINGERPRINT)
W.O. #: 6168-02-01-0000

NARRATIVE

This set of samples consisted of five drum liquid samples collected on April 08, 1991.

The liquids were diluted to the proper analytical range and then analyzed by Direct Injection - GC/FID for Hydrocarbons, and MIBK (Methyl iso-Butyl Ketone) on April 19, 1991. Dilutions were made by adding 100 ul of sample to 9.9 ml CS2 (carbon disulfide) 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.

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, and hydrocarbons were obtained by External Standard Quantification Method using the average calibration factor from the initial calibration.

3. Sample 9104L227-003 was reanalyzed and quantified in batch 91DGC336 due to the presence of hydrocarbons.

4. The method blank was free of contamination.

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

Pam Daniels 4/29/91
for J. Michael Taylor Date
Project Director
Lionville Analytical Laboratory
WEST227.CN

Roy F. Weston, Inc.- Lionville Laboratory

Hydrocarbon Fingerprinting

Client :Westinghouse
RFW# :9104L227-001
Client ID :BOOJ10
Matrix :Drum Liquid
Run Batch :91DGC334
Init. Cal.:04/18/91

Sample Collected:04/08/91
Sample Received :04/10/91
Sample Prepared :04/18/91
Sample Analyzed :04/19/91

Qualitative Identification

Sample consisted of an organic liquid which had an odor of MIBK (Methyl Iso-Butyl Ketone). The sample chromatogram had one major peak with a retention time which matched MIBK.

Degree of Matching = Excellent

Quantitative Report

Total MIBK = .81 G/ML

Approximate measured density = .80 G/ML

Theoretical density of MIBK = .80 G/ML

Sample quantified versus = MIBK

Roy F. Weston, Inc.- Lionville Laboratory

Hydrocarbon Fingerprinting

Client :Westinghouse
RFW# :9104L227-002
Client ID :B00J11
Matrix :Drum Liquid
Run Batch :91DGC334
Init. Cal.:04/18/91

Sample Collected:04/08/91
Sample Received :04/10/91
Sample Prepared :04/18/91
Sample Analyzed :04/19/91

Qualitative Identification

Sample consisted of an organic liquid which had an odor of MIBK (Methyl Iso-Butyl Ketone). The sample chromatogram had one major peak with a retention time which matched MIBK.

Degree of Matching = Excellent

Quantitative Report

Total MIBK = .80 G/ML

Approximate measured density = .82 G/ML

Theoretical density of MIBK = .80 G/ML

Sample quantified versus = MIBK

Roy F. Weston, Inc.- Lionville Laboratory

Hydrocarbon Fingerprinting

Client :Westinghouse
RFW# :9104L227-003
Client ID :B00J16
Matrix :Drum Liquid
Prep Batch:91DGC334
Run Batch :91DGC336
Init. Cal.:04/02-03/91

Sample Collected:04/08/91
Sample Received :04/10/91
Sample Prepared :04/18/91
Sample Analyzed :04/19/91

Qualitative Identification

No match could be obtained with any of the standards. The fingerprint could be a fuel oil. There was also a peak in the C18 region.

Degree of Matching = NA

Quantitative Report

Total Hydrocarbons = .91 G/ML

Approximate measured density = .78 G/ML

Sample quantified versus = Kerosene

Roy F. Weston, Inc.- Lionville Laboratory

Hydrocarbon Fingerprinting

Client :Westinghouse
RFW# :9104L227-004
Client ID :B00J17
Matrix :Drum Liquid
Run Batch :91DGC334
Init. Cal.:04/18/91

Sample Collected:04/08/91
Sample Received :04/10/91
Sample Prepared :04/18/91
Sample Analyzed :04/19/91

Qualitative Identification

Sample consisted of an organic liquid which had an odor of MIBK (Methyl Iso-Butyl Ketone). The sample chromatogram had one major peak with a retention time which matched MIBK.

Degree of Matching = Excellent

Quantitative Report

Total MIBK = .78 G/ML

Approximate measured density = .81 G/ML

Theoretical density of MIBK = .80 G/ML

Sample quantified versus = MIBK

Roy F. Weston, Inc.- Lionville Laboratory

Hydrocarbon Fingerprinting

Client :Westinghouse
RFW# :9104L227-005
Client ID :BOOJ18
Matrix :Drum Liquid
Run Batch :91DGC334
Init. Cal.:04/18/91

Sample Collected:04/08/91
Sample Received :04/10/91
Sample Prepared :04/18/91
Sample Analyzed :04/19/91

Qualitative Identification

Sample consisted of an organic liquid which had an odor of MIBK (Methyl Iso-Butyl Ketone). The sample chromatogram had one major peak with a retention time which matched MIBK.

Degree of Matching = Excellent

Quantitative Report

Total MIBK = .79 G/ML

Approximate measured density = .82 G/ML

Theoretical density of MIBK = .80 G/ML

Sample quantified versus = MIBK

9613424.0287

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 04-10-91
RFW #: 9104L227
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, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

5.6.91
Date

JUN 1991
RECEIVED
DATA RECEIPT

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11-6-95

ROY F. WESTON
INORGANICS DATA SUMMARY REPORT
PHYSICAL TESTING OBSERVATIONS

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 04-10-91
RFW #: 9104L227 -001 thru -005
W.O. #: 6168-02-01

Analyte:	**Observation:**
Flashpoint (IFLSH)	Vapors began to burn at: 47.86° for sample -001 47.86° for sample -002 51.86° for sample -002R 65.86° for sample -003 54.86° for sample -004 55.86° for sample -005 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 76.86°F.

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9613424.0289

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/03/91

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

WESTON BATCH #: 9104L227

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	BOOJ10	Chloride by IC	0.50 u	mg/L	0.50
		Fluoride by IC	28.3	mg/L	10.0
		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	47.9	DEG/F	20.0
-002	BOOJ11	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	47.9	DEG/F	20.0
-003	BOOJ16	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	65.9	DEG/F	20.0
-004	BOOJ17	Chloride by IC	0.50 u	mg/L	0.50
		Fluoride by IC	6.9	mg/L	1.0
		Nitrite by IC	0.50 u	mg/L	0.50
		Nitrate by IC	28.5	mg/L	0.50
		Phosphate by IC	0.52	mg/L	0.50
		Sulfate by IC	1.6	mg/L	0.50
		Flash Point	54.9	DEG/F	20.0
-005	BOOJ18	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	55.9	DEG/F	20.0

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ19

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

Lab Code: WESTON Case No.: 618-9 SAS No.: SDG No.: CLP227

Matrix (soil/water): SOIL Lab Sample ID: 910426805

Level (low/med): LOW Date Received: 4/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	77.00	U		P
7440-36-0	Antimony	19.00	U	N	P
7440-38-2	Arsenic				NR
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	408.00	B		P
7440-47-3	Chromium	4.40	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	25.90		N	P
7439-89-6	Iron	834.00			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	84.00	U		P
7439-96-5	Manganese	94.00		N	P
7439-97-6	Mercury				NR
7440-02-0	Nickel	7.00	U	N	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	380.00	B		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	93.00		*E	P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

9613424.0291

22

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

BOOJ46_

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

Lab Code: WESTON Case No.: 618-9 SAS No.: SDG No.: CLP227

Matrix (soil/water): SOIL Lab Sample ID: 910432601

Level (low/med): LOW Date Received: 4/18/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	95.80	B		P
7440-36-0	Antimony	19.00	U	N	P
7440-38-2	Arsenic				NR
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	480.00	B		P
7440-47-3	Chromium	4.60	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	36.50		N	P
7439-89-6	Iron	204.00			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	84.00	U		P
7439-96-5	Manganese	7.70	B	N	P
7439-97-6	Mercury				NR
7440-02-0	Nickel	11.40	B	N	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	898.00	B		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	867.00		*E	P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

9613424.0292

23

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

BOOJ47

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

Lab Code: WESTON Case No.: 618-9 SAS No.: SDG No.: CLP227

Matrix (soil/water): SOIL Lab Sample ID: 910432602

Level (low/med): LOW Date Received: 4/18/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	128.00	B		P
7440-36-0	Antimony	19.00	U	N	P
7440-38-2	Arsenic				NR
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	325.00	B		P
7440-47-3	Chromium	3.20	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	15.80	B	N	P
7439-89-6	Iron	3380.00			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	84.00	U		P
7439-96-5	Manganese	3.70	B	N	P
7439-97-6	Mercury				NR
7440-02-0	Nickel	9.90	B		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	98.50	B		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	782.00		*E	P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

9613424.0293

24

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B00J07--

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

Lab Code: WESTON Case No.: 618-9 SAS No.: SDG No.: CLP227

Matrix (soil/water): SOIL Lab Sample ID: 910438201

Level (low/med): LOW Date Received: 4/24/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	124.00	B		P
7440-36-0	Antimony	19.00	U	N	P
7440-38-2	Arsenic				NR
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	335.00	B		P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.60	B	N	P
7439-89-6	Iron	2680.00			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	84.00	U		P
7439-96-5	Manganese	20.00		N	P
7439-97-6	Mercury				NR
7440-02-0	Nickel	7.00	U	N	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	335.00	B		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	30.60		*E	P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

9613424.0294

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U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

BOOJ45

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

Lab Code: WESTON Case No.: 618-9 SAS No.: SDG No.: CLP227

Matrix (soil/water): SOIL Lab Sample ID: 910438202

Level (low/med): LOW Date Received: 4/24/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	575.00			P
7440-36-0	Antimony	19.00	U	N	P
7440-38-2	Arsenic				NR
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	368.00	B		P
7440-47-3	Chromium	18.00		N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.80	B	N	P
7439-89-6	Iron	404.00			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	1300.00	B		P
7439-96-5	Manganese	4.20	B	N	P
7439-97-6	Mercury				NR
7440-02-0	Nickel	8.30	B	N	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	347.00	B		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	43.80		*E	P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

9613424.0295

24

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ39-

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

Lab Code: WESTON Case No.: 618-9 SAS No.: SDG No.: CLP227

Matrix (soil/water): SOIL Lab Sample ID: 910440201

Level (low/med): LOW Date Received: 4/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	87.30	B		P
7440-36-0	Antimony	19.00	U	N	P
7440-38-2	Arsenic				NR
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	242.00	B		P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.00	U	N	P
7439-89-6	Iron	146.00			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	84.00	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				NR
7440-02-0	Nickel	7.00	U	N	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	78.50	B		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	51.20		*E	P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

9613424.0296

27

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

BOOV48--

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

Lab Code: WESTON Case No.: 618-9 SAS No.: SDG No.: CLP227

Matrix (soil/water): SOIL Lab Sample ID: 910440202

Level (low/med): LOW Date Received: 4/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	83.50	B		P
7440-36-0	Antimony	19.00	U	N	P
7440-38-2	Arsenic				NR
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	290.00	B		P
7440-47-3	Chromium	6.00	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.80	B	N	P
7439-89-6	Iron	169.00			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	84.00	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				NR
7440-02-0	Nickel	7.00	U	N	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	136.00	B		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	38.80		*E	P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

9613424.0297

28

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

BOOV49-

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

Lab Code: WESTON Case No.: 618-9 SAS No.: SDG No.: CLP227

Matrix (soil/water): SOIL Lab Sample ID: 910440203

Level (low/med): LOW Date Received: 4/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	118.00	B		P
7440-36-0	Antimony	19.00	U	N	P
7440-38-2	Arsenic				NR
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	339.00	B		P
7440-47-3	Chromium	3.40	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.30	B	N	P
7439-89-6	Iron	197.00			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	84.00	U		P
7439-96-5	Manganese	3.00	B	N	P
7439-97-6	Mercury				NR
7440-02-0	Nickel	7.00	U	N	P
7440-09-7	Potassium	1100.00	B		P
7782-49-2	Selenium				NR
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	1130.00	B		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	49.10		*E	P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

BOOV50-

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

Lab Code: WESTON Case No.: 618-9 SAS No.: SDG No.: CLP227

Matrix (soil/water): SOIL Lab Sample ID: 910440204

Level (low/med): LOW Date Received: 4/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	109.00	B		P
7440-36-0	Antimony	29.00	B	N	P
7440-38-2	Arsenic				NR
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	293.00	B		P
7440-47-3	Chromium	3.60	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.30	B	N	P
7439-89-6	Iron	131.00			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	84.00	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				NR
7440-02-0	Nickel	7.00	U	N	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	73.50	B		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	126.00		*E	P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

9618424.0299

30

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV51--

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

Lab Code: WESTON Case No.: 618-9 SAS No.: SDG No.: CLP227

Matrix (soil/water): SOIL Lab Sample ID: 910440205

Level (low/med): LOW Date Received: 4/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	87.30	B		P
7440-36-0	Antimony	19.00	U	N	P
7440-38-2	Arsenic				NR
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	308.00	B		P
7440-47-3	Chromium	5.90	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	10.80	B	N	P
7439-89-6	Iron	123.00			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	84.00	U		P
7439-96-5	Manganese	2.20	B	N	P
7439-97-6	Mercury				NR
7440-02-0	Nickel	25.70	B	N	P
7440-09-7	Potassium	1050.00	B		P
7782-49-2	Selenium				NR
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	442.00	B		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	41.30		*E	P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

WESTON

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

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

10.22.91
Date

pas\ clp-met.nar

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ10

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

Lab Code: WESTON Case No.: 618-9 SAS No.: SDG No.: CLP227

Matrix (soil/water): SOIL Lab Sample ID: 910422701

Level (low/med): LOW Date Received: 4/10/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	130.00	B	N	P
7440-36-0	Antimony	19.00	U	N	P
7440-38-2	Arsenic				NR
7440-39-3	Barium	5.00		N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	310.00	B		P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	36.10		N	P
7439-89-6	Iron	212.00		N	P
7439-92-1	Lead				NR
7439-95-4	Magnesium	84.00	U		P
7439-96-5	Manganese	2.50	B	N	P
7439-97-6	Mercury				NR
7440-02-0	Nickel	7.00	U	N	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	404.00	B		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	171.00		*E	P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B00J16

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

Lab Code: WESTON Case No.: 618-9 SAS No.: SDG No.: CLP227

Matrix (soil/water): SOIL Lab Sample ID: 910422703

Level (low/med): LOW Date Received: 4/10/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	77.00	U	N	P
7440-36-0	Antimony	19.00	U	N	P
7440-38-2	Arsenic				NR
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	353.00	B		P
7440-47-3	Chromium	4.20	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	11.60	B	N	P
7439-89-6	Iron	94.00	B	N	P
7439-92-1	Lead				NR
7439-95-4	Magnesium	84.00	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				NR
7440-02-0	Nickel	7.00	U	N	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	243.00	B		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	45.40		*E	P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ18

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

Lab Code: WESTON Case No.: 618-9 SAS No.: SDG No.: CLP227

Matrix (soil/water): SOIL Lab Sample ID: 910422705

Level (low/med): LOW Date Received: 4/10/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	125.00	B	N	P
7440-36-0	Antimony	20.10	B	N	P
7440-38-2	Arsenic				NR
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	328.00	B		P
7440-47-3	Chromium	3.70	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	44.30		N	P
7439-89-6	Iron	166.00		N	P
7439-92-1	Lead				NR
7439-95-4	Magnesium	84.00	U		P
7439-96-5	Manganese	2.50	B	N	P
7439-97-6	Mercury				NR
7440-02-0	Nickel	7.00	U	N	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	223.00	B		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	115.00		*E	P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ12

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

Lab Code: WESTON Case No.: 618-9 SAS No.: SDG No.: CLP227

Matrix (soil/water): SOIL Lab Sample ID: 910426801

Level (low/med): LOW Date Received: 4/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	199.00	B		P
7440-36-0	Antimony	19.00	U	N	P
7440-38-2	Arsenic				NR
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	282.00	B		P
7440-47-3	Chromium	3.40	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.30	B	N	P
7439-89-6	Iron	156.00			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	84.00	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				NR
7440-02-0	Nickel	7.00	U	N	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	132.00	B		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	69.00		*E	P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B00J13_

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

Lab Code: WESTON Case No.: 618-9 SAS No.: SDG No.: CLP227

Matrix (soil/water): SOIL Lab Sample ID: 910426802

Level (low/med): LOW Date Received: 4/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	136.00	B		P
7440-36-0	Antimony	19.00	U	N	P
7440-38-2	Arsenic				NR
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	322.00	B		P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	12.10	B	N	P
7439-89-6	Iron	286.00			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	84.00	U		P
7439-96-5	Manganese	3.10	B	N	P
7439-97-6	Mercury				NR
7440-02-0	Nickel	7.00	U	N	P
7440-09-7	Potassium	1690.00	B		P
7782-49-2	Selenium				NR
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	183.00	B		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	48.90		*E	P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

9615424.0506

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ14

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

Lab Code: WESTON Case No.: 618-9 SAS No.: SDG No.: CLP227

Matrix (soil/water): SOIL Lab Sample ID: 910426803

Level (low/med): LOW Date Received: 4/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	127.00	B		P
7440-36-0	Antimony	19.00	U	N	P
7440-38-2	Arsenic				NR
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	350.00	B		P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	11.20	B	N	P
7439-89-6	Iron	216.00			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	84.00	U		P
7439-96-5	Manganese	2.00		N	P
7439-97-6	Mercury				NR
7440-02-0	Nickel	13.20	B	N	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	356.00	B		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	53.70		*E	P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

9613424.0307

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U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

BOOJ15

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

Lab Code: WESTON Case No.: 618-9 SAS No.: SDG No.: CLP227

Matrix (soil/water): SOIL Lab Sample ID: 910426804

Level (low/med): LOW Date Received: 4/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	295.00			P
7440-36-0	Antimony	42.80	B	N	P
7440-38-2	Arsenic				NR
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	297.00	B		P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	11.60	B	N	P
7439-89-6	Iron	195.00			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	84.00	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				NR
7440-02-0	Nickel	15.40	B	N	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	231.00	B		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	52.00		*E	P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

Custody Transfer Record/Lab Work Request

WESTON

WESTON Analytics Use Only
91044227

Client: Westinghouse Hanford /B.E. Innis
Work Order: ~~EN52C~~ 61168-02-01 5/15/91
Date Rec'd. 4/10/91 Date Due: ~~As specified~~ per SOW
RFW Contact: Peg Beaty
Client Contact/Phone: B.E. Innis (509) 376-7690

Refrigerator#	1			6			6		
#/Type Container	2-40ml AMBER	1-Amber Glass				1-Amber Glass			
Volume	80ml.	950ml.				500ml			
Preservative	Ice	ICE				ICE			
ANALYSES REQUESTED	VOA/Hexane (8240)	Semi VOA/TBP (8270)	Kerosene (OC/8080)	TCP/Metals (6010)	Anions (300) Flash Point (1010)	Alpha/Beta (PRO-032-1)	Gamma (PRO-042-5)	Total Uran. (PRO-032-89)	Hard Uran. (PRO-052-22)

WA Use Only Lab ID	Client ID/Description	Matrix	Date Collected	VOA/Hexane (8240)	Semi VOA/TBP (8270)	Kerosene (OC/8080)	TCP/Metals (6010)	Anions (300) Flash Point (1010)	Alpha/Beta (PRO-032-1)	Gamma (PRO-042-5)	Total Uran. (PRO-032-89)	Hard Uran. (PRO-052-22)
001	1) B00J10	DL	4-8-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
002	2) B00J11	DL	4-8-91	(✓)	(✓)	✓	(✓)	✓	✓	(✓)	✓	✓
003	3) B00J12 4-8-91 16	DL	4-8-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
004	4) B00J17	DL	4-8-91	(✓)	(✓)	✓	(✓)	✓	✓	(✓)	✓	✓
005	5) B00J18	DL	4-8-91	✓	✓	✓	✓	✓	✓	✓	✓	✓

Revision #1 4/14/91 Radiochem subbed To Teledyne

Please Priority analyze circled samples for accelerated turnaround

QTAT on 91044-340 4/14/91 Lemma

624H = HSL + Kerosene — Anion = ICCL, ICFL, ICP4, ICP03, ICIC

625H = HSL + Tributyl Phosphate — Metals = Westinghouse ICP

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 GC/Del=CLP

Special Instructions: Please call to confirm receipt and conditionof sample shipment

TAT-35 days GC/X = Del Lab L375

Item/Reason	Relinquished by	Received by	Date	Time	Item/Reason	Relinquished by	Received by	Date	Time
VOA/SVOA	Emery	Fleigh	4/10/91	11:00					
Bal/PCB	[illegible]	[illegible]	4/11/91	100					
FISH	[illegible]	[illegible]	SEE WP 20	OF C					
26GSC	[illegible]	[illegible]	[illegible]	9:40					

WESTON Analytics Use Only
Samples Were: 1 Shipped or Hand-Delivered (Y) NOTES:
2 Ambient or Chilled (Y) 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) 2 Unbroken on Outer Package (Y) 3 Present on Sample (Y) 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

EAT 003,005 K Shuppard 4/15/91 9:30 IEL8H DK Little 4/16/91 8:45 FFleigh 4/19/91 10:00

9613424.0308

0000802 2

Custody Transfer Record/Lab Work Request

WESTON

WESTON Analytics Use Only
91C4L268

Client: Westinghouse Hanford/B.E. Innis
Work Order: EN52G 4118-03-01 5/17/91
Date Rec'd.: 4/12/91 Date Due: As specified per SOW
RFW Contact: Peg Beaty
Client Contact/Phone: B.E. Innis/ (509)376-7690

WA Use Only Lab ID	Client ID/Description	Matrix	Date Collected	VOA/Aromatic (8240)	Semi VOA/TSP (8270)	Kerosene	PCB (8080)	ICP Metals (6010)	Anions (300.0) Flash Point (100)	Alpha/Beta (PRO-032-1)	Gamma (PRO-042-5)	Total Chem. (PRO-052-59)	Dis. Chem. (PRO-052-32)
	Refrigerator#			1		4					4		
	#/Type Container			2-40ml			AMBER					AMBER	Clear
	Volume			Amber 80ml			1000 ml					500ml	
	Preservative			ice			ice					ice	
001	1) B00J12	DL	4-10-91	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	2) B00J13	DL	4-10-91	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3	3) B00J14	DL	4-10-91	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4	4) B00J15	DL	4-10-91	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5	5) B00J19	DL	4-10-91	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	L24H = HCL + Hexane												
	L25H = HCL + Dis. Metal Preserved			Anions: ICCL, ICFL, ICSO4, ICPO4									
	Metals = Westinghouse ICP							ICM03	ICM02				

Revision #1 4/11/91 Rad analysis subbed to Teledyne

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

L/L Dal-CLP TAT = 35 day

CCSC. Dal 4/16 1575

Item/Reason	Relinquished by	Received by	Date	Time
	[illegible]	[illegible]	4/12-91	7:30
MOA	M. Jones	[illegible]	4/12	9:25
1-5 EXT.	[illegible]	R. [illegible]	4/15	10:00
	[illegible]	[illegible]	SEE WHC COC	
OCC Sent	[illegible]	[illegible]	4/19	9:40
Recd		F. Mizer	4/19	10:00

Item/Reason	Relinquished by	Received by	Date	Time

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
Comments:

4 Properly Preserved Y N
Comments:

5 Proper VOA Headspace Y N
Comments:

6 Custody Seals on Outer Package Y N
Date Seals Broken:

7 Custody Seals on Sample Y N

8 Sample Container Broken 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

All VOAs 4/15/91 [illegible]
Fish [illegible] 4/16/91

9613424.0309

0000003

Custody Transfer Record/Lab Work Request

WESTON

WESTON Analytics Use Only
9104L326

WS-HANFORD

Client: Westinghouse Hanford/B.E. Innis
Work Order: ~~EN52e~~ 61168-02-01 5/22/91
Date Rec'd.: 4/18/91 Date Due: ~~As specified~~
RFW Contact: Peg Beaty per SOW
Client Contact/Phone: B.E. Innis (509) 376-7690

Refrigerator#									
#/Type Container	40ml, amber		amber glass 1000ml.				Clear glass 500ml.		
Volume (Total)	80ml.								
Preservative	ice		ice		ice				
ANALYSES REQUESTED	VOA 1	BNA 2	GCSC PCB 3	Metals 4	Anions Flash 5	RAD 6	RAD 7	RAD 8	RAD 9
	VOA24H	BNA5H	GCSC PCB	See Below	See Below Flash	ISOB			

WA Use Only Lab ID	Client ID/Description	Matrix	Date Collected	1	2	3	4	5	6	7	8	9
001	1)B00J46	DL	4-16-91	X	X	X	X	X	X	X	X	X
002	2)B00J47	DL	4-16-91	X	X	X	X	X+	X	X	X	X

GCSC = Kerosene
GCSC = Dod lab 1345

QC Dol = CLP
TAT = 35 day

624 H + ~~Hexane~~ Hexane
1625 H+ TBP
Anions - ICCL, ICFL, ICSO4, ICPO4, ICNO3, IC NO2
Metals - Westinghouse ICP

ANALYSES REQUESTED
1: VOA/Hexone (CLP) 2:Semi-VOA/TBP(CLP)
3: Kerosene, PCB's(CLP) 4:ICP Metals(CLP)
5: Anions(300.0), Flashpoint (1010) 6:Alpha/Beta (PRO-032-18)
7: Gamma Scan(PRO-042-5) 8:Total Uranium (PRO-032-89) 9:Isotopic Uranium (PRO-052-32)

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 sampleshipment

Item/Reason	Relinquished by	Received by	Date	Time	Item/Reason	Relinquished by	Received by	Date	Time
	[illegible]	[illegible]	4/18/91	4:30 pm	001,002 EXT	K. Sloan	Brian [illegible]	4/22/91	9:30
RADSCREN	[illegible]	Charles [illegible]	4-18-91	10:00AM	VOA	[illegible]	[illegible]	4-22-91	12:20
SOLVENT	Charles [illegible]	[illegible]	4-18-91	11:00AM	VOA	[illegible]	B. [illegible]	4-22-91	12:47
BNA/001,002	Brian E. [illegible]	K. [illegible]	4/19/91	9:35	WHO C OF SC ANIONS	M. Jason	[illegible]	5-1-91	9:30
VOA	M. Jason	[illegible]	4/19	930	ANIONS -	[illegible]		5-2-91	100
VOA	up to [illegible]	M. Jason	4/19	1000	Metals		Mc Nelson	5/6/91	10:00

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

7-115

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
2 Unbroken on Outer Package Y
3 Present on Sample Y
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:

9613424.0310

0000

Custody Transfer Record/Lab Work Request

WESTON

WESTON Analytics Use Only
9104L382

(WS-HANFORD)

Client: Westinghouse Hanford/B.E. Innis
Work Order: ~~EN52C~~ 6168-02-01 5/29/91
Date Rec'd.: 4/24/91 Date Due: ~~As specified~~ in SOW
RFW Contact: Peg Beaty
Client Contact/Phone: B.E. Innis/(509)376-7690

Refrigerator#										
#/Type Container	2 amber		amber glass 1000 ml				clear glass 500 ml			
Volume	40 ml									
Preservative	ice		ice				ice			
ANALYSES REQUESTED →	VOA 1	BNA 2	PCB GCSC 3	Metals 4	Anions FLSH 5		RADIOCHEM 6	7	8	9

WA Use Only Lab ID	Client ID/Description	Matrix	Date Collected	1	2	3	4	5	6	7	8	9
001	1) B00J07	DL	4-22-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
	~~2) B00J45~~ bd 4-23-91		~~4-22-91~~									

ANALYSES REQUESTED
1: VOA/Hexone (CLP)
2: Semi-VOA/TBP (CLP) (HSL + Tri Butyl Phosphate)
3: Kerosene, PCB's (CLP)
4: ICP Metals (CLP) (Westinghouse)
5: Anions (300.0), Flashpoint (1010)
6: Alpha/Beta (PRO-032-1)
7: Gamma Scan (PRO-042-5)
8: Total Uranium (PRO-032-89)
9: Isotopic Uranium (PRO-052-32)

GCSC - Dell lab 1375
Anion = ICCL, ICFL, ICSO4, ICPO4
ICNO3, ICNO2
Metals = Westinghouse ICP

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

Special Instructions: Please call to confirm receipt and condition of sample.

Item/Reason	Relinquished by	Received by	Date	Time	Item/Reason	Relinquished by	Received by	Date	Time
All	Fed-Ex	Brian Shaffer	4/24/91	9:30	EXT 001,002	R Shepard	[illegible]	4/29/91	9:30
RADSCAN	Brian Shaffer	Charles Pier	4-24-91	9:45 AM	002	[illegible]	Tom Davis	4/30/91	
			SEE WHC COC		C/PA	[illegible]	[illegible]	5/1	10:00
STORAGE	Charles Pier	Brian Shaffer	4-24-91	2:30 PM	VOA	[illegible]	[illegible]	5-1-91	17:30
[illegible]	[illegible]	R Shepard	4/25/91		FLSH	[illegible]	D. [illegible]	5/2/91	8.00
~~FLSH~~	~~[illegible]~~	~~DL~~	~~4/26/91~~	~~8:45~~	Metals	McMyhon		5/29/91	9:00

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

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: 002, 003 Received out of Hold

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:

7-115

9613424.0311

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AR DOC # 10/210 2060

Custody Transfer Record/Lab Work Request

WESTON

WESTON Analytics Use Only
91041382 (US Hanford)

Client: Westinghouse Hanford Company/BE Innis
Work Order: ~~BNFC~~ 6168-02-01
Date Rec'd.: 4/24/91 Date Due: As specified in SOW
RFW Contact: Peg Beaty
Client Contact/Phone: BE Innis (509) 376-7690

Refrigerator#									
#/Type Container	2 amber		amber glass				clear glass		
Volume	40ml		1000 ml				500 ml		
Preservative	ice		ice				ice		
ANALYSES REQUESTED	1	2	3	4	5	6	7	8	9
	8021/4	8270	8080 OBSO	SEE OTHER	SEE OTHER EAST	I	S	G	B

WA Use Only Lab ID	Client ID/Description	Matrix	Date Collected	1	2	3	4	5	6	7	8	9
002	D BOOT45	DL	4-22-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ANALYSES REQUESTED											
	1: VOA/HExone (CLP)											
	2: Semi-VOA/TBP (CLP)											
	3: Kerosene, PCB's (CLP)											
	4: ICP Metals (CLP)											
	5: Anions (300.0), Flashpoint	1010)										
	6: Alpha/Beta (PRO-032-1)											
	7: Gamma Scan (PRO-042-5)											
	8: Total Uranium (PRO-032-89)											
	9: Isotopic Uranium (PRO-052-32)											

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 to confirm condition of samples.

Item/Reason	Relinquished by	Received by	Date	Time	Item/Reason	Relinquished by	Received by	Date	Time
All	Fed-Ex	Brian Shaffer	4/24/91	9:30	Metals		McMahon	5/29/91	10:00
RAD SCAN	Brian Shaffer	Charles Pyle	4-24-91	9:45 AM					
		SEE WHC C OF C							
ANIONS		C Sadler	4/30/91	11:15					
ANIONS	C Sadler		4/30/91	1600					

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:

9613424.0312

Custody Transfer Record/Lab Work Request

WESTON

WESTON Analytics Use Only
910HL402

WS-HANFORD

Client: Westinghouse Hanford/B.E. Innis
Work Order: EN52C 6168-02-01/4/91
Date Rec'd.: 4/26/91 Date Due: ~~As specified~~ in SOW 5/31/91
RFW Contact: Peg Beaty
Client Contact/Phone: B.E. Innis (509)376-~~8978~~ 7690

Refrigerator#									
#/Type Container	2 amber		1 amber glass			1 amber glass			
Volume	40ml		950ml			500ml			
Preservative	ice		ice			ice			
ANALYSES REQUESTED →	1	2	3	4	5	6	7	8	9

WA Use Only Lab ID	Client ID/Description	Matrix	Date Collected	1 (0624H)	2 (0625H)	3 (GCSC OPCB)	4 (See Below)	5 (8270 IFSH)	6	7	8	9
001	1)B00T39	DL	4-24-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	2)B00V48	DL	4-24-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
3	3)B00V49	DL	4-24-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
4	4)B00V50	DL	4-24-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
5	5)B00V51	DL	4-24-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ANALYSES REQUESTED		GCSC- Kerosene									
	1: VOA/Hexone (CLP) 0624H						QC/Dal=CLP					
	2: Semi-VOA/TBP (CLP) 0625H						TAT=35day					
	3: Kerosene, PCB's (CLP)					GCSC=Tod Lab L375						
	4: ICP Metals (CLP) (Westinghouse ICP)											
	5: Anions (300.0), Flashpoint (1010)			Anions=ICCL,ICFL,ICSO4,ICPO4,ICNO3,ICNO2								
	6: Alpha/Beta (PRO-032-1)											
	7: Gamma Scan (PRO-042-5)											
	8: Total Uranium (PRO-032-89)	9: Isotopic Uranium (PRO-052-32)										

ISOB

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

Item/Reason	Relinquished by	Received by	Date	Time	Item/Reason	Relinquished by	Received by	Date	Time
[illegible]	[illegible]	[illegible]	4/26/91	9:30am	ANIONS	[illegible]	[illegible]	4/30/91	1600
RADSCAN	[illegible]	Charles [illegible]	4-26-91	9:45am	VOA	[illegible]	[illegible]	5-1-91	10:20
STORAGE	Charles [illegible]	[illegible]	4-26-91	12:05pm	VOA	[illegible]	[illegible]	5-1-91	17:30
VOA 5-32	N. Boufnard		4-29-91		SEE WHC C OF C				
EXTOX-3005	[illegible]	K. Heppard	4-29-91	9:40	FL SST	[illegible]	[illegible]	5/2/91	8:00
ANIONS	[illegible]	[illegible]	4/30/91	11:15	OPCB	[illegible]	[illegible]	5-6-91	2400

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

WESTON Analytics Use Only
Samples Were: 1 Shipped or Hand-Delivered (Shipped) NOTES:
2 Ambient or Chilled (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:

9613424.0313

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7-115

Custody Transfer Record/Lab Work Request

WESTON

WESTON Analytics Use Only
9104L227

Client: Westinghouse Hanford /B.E. Innis
Work Order: ~~EN52C~~ 61168-02-01
Date Rec'd.: 4/10/91 Date Due: ~~As specified~~ 5/15/91 per SOW
RFW Contact: Peg Beaty
Client Contact/Phone: B.E. Innis (509) 376-7690

Refrigerator#				1			6			6		
#/Type Container				2-40ml Amber	1-Amber Glass					1-Amber Glass		
Volume				40ml	950ml					500ml		
Preservative				Ice	ICE					ICE		
ANALYSES REQUESTED				VOA/Hexane (8240)	Semi VOA/TBP (8270)	Kerosene (GC/MS 8080)	ICP Metals (6010)	Anions (300.0) Flash Point (1010)	Alpha/Beta (900.0-32-1)	Gamma (900.0-32-5)	Total Uran. (900.0-32-8)	Sary. Uran. (900.0-05-32)
WA Use Only Lab ID	Client ID/Description	Matrix	Date Collected									
001	1) B00J10	DL	4-8-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
002	2) B00J11	DL	4-8-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
003	3) B00J12-16	DL	4-8-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
004	4) B00J17	DL	4-8-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
005	5) B00J18	DL	4-8-91	✓	✓	✓	✓	✓	✓	✓	✓	✓

Revision #1 4/14/91 Radiochem subbed To Teledyne

Please Priority analyze circled samples for accelerated turnaround
QTAT on 9104L340 sample Gamma
Anion = IC01, IC FL, IC-04, IC PO4, IC1303, IC1X
Metals = Westinghouse ICP.

1624H = HSL + Hexane
1625H = HSL + Tri-butyl Phosphate

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 GC/Del-CLP

Special Instructions: Please call to confirm receipt and conditionof sample shipment
TAT - 35 days
GC-C = Dr. Lab 3-5

Item/Reason	Relinquished by	Received by	Date	Time	Item/Reason	Relinquished by	Received by	Date	Time
[illegible]	[illegible]	[illegible]	4/10/91	11:00 am					
Bal/PCB	[illegible]	[illegible]	4/11/91	100					
FISH	[illegible]	[illegible]	[illegible]	[illegible]					
GC/SC	[illegible]	[illegible]	[illegible]	9:40					

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

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EXT 003,005 K Sheppard 4/15/91 9:30 IEL 8/1 DK/Little 4/14/91 8:45 FK/Olson 4/19/91 10:00

Custody Transfer Record/Lab Work Request

WESTON

WESTON Analytics Use Only
91C4L268

Client: Westinghouse Hanford/B.E. Innis
Work Order: EN52G 4118-C0-C1 5/17/91
Date Rec'd.: 4/12/91 Date Due: As specified per SOW
RFW Contact: Peg Beaty
Client Contact/Phone: B.E. Innis/ (509)376-7690

Refrigerator#	1		6				4	6	
#/Type Container	2-40ml			AMBER				AMBER	Clear
Volume	Amber 80m			1000 ml				500ml	
Preservative	ice			ice				ice	
ANALYSES REQUESTED	VOA Hexane (8240)	SemiVOA/TSP (8270)	Kerosene PCB (8080)	TCP Metals (6010)	Anions (300) Flash Point (100)	Alpha/Beta (PRO-032-1)	Cyanide (PRO-042-5)	Total Hum. (PRO-052-89)	Vis. Hum. (PRO-052-32)

WA Use Only Lab ID	Client ID/Description	M. Int.	Date Collected	VOA	SemiVOA	Kerosene	TCP	Anions	Alpha/Beta	Cyanide	Total Hum.	Vis. Hum.
001	1) B00J12	DL	4-10-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	2) B00J13	DL	4-10-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
3	3) B00J14	DL	4-10-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
4	4) B00J15	DL	4-10-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
5	5) B00J19	DL	4-10-91	✓	✓	✓	✓	✓	✓	✓	✓	✓

Revision #1 4/14/91 Rebaches Subbed to Total Cyn

L24H = HSL + Hexane
L25H = HSL + Tri-butyl Phosphate
Metals = Westinghouse IC

Anions = ICCL, ICFL, ICSO4, ICPO4, ICNO3, ICNO2

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: GC/DL-24P TAT=35 Day

Please call to confirm receipt and condition of sample shipment

CCSC-Bad Lab L375

Item/Reason	Relinquished by	Received by	Date	Time	Item/Reason	Relinquished by	Received by	Date	Time
			4/12/91	7:30 am					
MOA			4/15	9:25					
FS EXT			4/15	10:00					
			SEE WIC & F C						
OBC SEN			4/17	9:10					
Anions			4/19	10:00					

WESTON Analytics Use Only

Samples Were:
1 Shipped or Hand-Delivered (Y) N
NOTES:

2 Ambient or Chilled (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

All VOAs 4/15/91

9613424.0315

0000003

Custody Transfer Record/Lab Work Request

WESTON

WESTON Analytics Use Only
9104L326

WS-HANFORD

Client: Westinghouse Hanford/B.E. Innis
Work Order: ~~EN52E~~ 16168-02-01 5/23/91
Date Rec'd.: 4/18/91 Date Due: As specified
RFW Contact: Peg Beaty per SOW
Client Contact/Phone: B.E. Innis (509) 376-7690

Refrigerator#										
#/Type Container		40ml. amber		amber glass 1000ml.				Clear glass 500 ml.		
Volume (Total)		80ml.								
Preservative		ice		GCSC ice				ice		
ANALYSES REQUESTED		VOA 1	BNA 2	GCSC PCB 3	Metals 4	Anions Flash 5	RAD 6	RAD 7	RAD 8	RAD 9
WA Use Only Lab ID	Client ID/Description	Matrix	Date Collected							
001	1)B00J46	DL	4-16-91	x	x	x	x	x	x	x	x	x
002	2)B00J47	DL	4-16-91	x	x	x	x	x+	x	x	x	x

GCSC = Kerosene
GCSC = Dod lab 1335
QC/Dol = CLP
TAT = 35 day
624 H + ~~Hexane~~ Hexane
1625 H + TBP
Anions - ICCL, ICFL, ICSO4, ICPO4, ICNO3, IC NO2
Metals - Westinghouse ICP

ANALYSES REQUESTED
1: VOA/Hexone (CLP) 2:Semi-VOA/TBP(CLP)
3: Kerosene, PCB's(CLP) 4:ICP Metals(CLP)
5: Anions(300.0), Flashpoint (1010) 6:Alpha/Beta (PRO-032-18)
7: Gamma Scan(PRO-042-5) 8:Total Uranium (PRO-032-89) 9:Isotopic Uranium (PRO-052-32)

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 sampleshipment

Item/Reason	Relinquished by	Received by	Date	Time	Item/Reason	Relinquished by	Received by	Date	Time
	[illegible]	[illegible]	4/18/91	9:30	001,002 EXT	[illegible]	[illegible]	4/22/91	9:30
RADSCRN	[illegible]	[illegible]	4-18-91	10:00AM	VOA	[illegible]	[illegible]	4-22-91	12:20
STORAGE	[illegible]	[illegible]	4-18-91	11:00AM	VOA	[illegible]	[illegible]	4-22-91	12:47
BNA/001,002	[illegible]	[illegible]	4/19/91	9:35	ANIONS C	M. Jason	[illegible]	5-1-91	9:50
VOA	M. Jason	[illegible]	4/19	930	ANIONS -	[illegible]		5-2-91	100
VOA	[illegible]	M. Jason	4/19	1000	Metals		McMahon	5/28/91	10:00

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
2 Unbroken on Outer Package Y
3 Present on Sample Y
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:

9103424.0316

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

7-115

9613424.0317

0000005

Item/Reason	Relinquished by	Received by	Date	Time
Metals	McMahon		5/29/96	9:30

Air Bill of lading # 164 410 2060

Custody Transfer Record/Lab Work Request

WESTON

WESTON Analytics Use Only
91041382

WS-HANFORD

Client: Westinghouse Hanford/B.E. Innis
Work Order: ~~EN52C~~ 6168-02-01 5/29/91
Date Rec'd.: 4/24/91 Date Due: ~~As specified~~ in SOW
RFW Contact: Peg Beaty
Client Contact/Phone: B.E. Innis/(509)376-7690

Refrigerator#									
#/Type Container	2 amber		amber glass			clear glass			
Volume	40ml		1000 ml			500 ml			
Preservative	ice		ice			ice			
ANALYSES REQUESTED →	VOA 1	BNA 2	PCB GC/EC 3	Metals 4	Anions + FLSH 5	RADIOCHEM 6	7	8	9

WA Use Only Lab ID	Client ID/Description	Matrix	Date Collected	VOA 1	BNA 2	PCB GC/EC 3	Metals 4	Anions + FLSH 5	RADIOCHEM 6	7	8	9
001	1) B00J07	DL	4-22-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
	~~2) B00J45~~ PD 4-23-91		4-22-91									

ANALYSES REQUESTED
1: VOA/Hexone (CLP)
2: Semi-VOA/TBP (CLP) (HSL + Tri Butyl Phosphate)
3: Kerosene, PCB's (CLP)
4: ICP Metals (CLP) (Westinghouse)
5: Anions (300.0), Flashpoint (1010)
6: Alpha/Beta (PRO-032-1)
7: Gamma Scan (PRO-042-5)
8: Total Uranium (PRO-032-89)
9: Isotopic Uranium (PRO-052-32)

GCSC-Sedlab 1375
Anion = ICCl, ICFL, IC504, IC904
IC103, IC102
Metals = Westinghouse ICP

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. el

Item/Reason	Relinquished by	Received by	Date	Time	Item/Reason	Relinquished by	Received by	Date	Time
All	Peg-FEP	Brian Shaffer	4/24/91	9:30	EXT 001,002	K Shepard	[illegible]	4/24/91	9:30
RAD SCRN	Brian Shaffer	Charles Pier	4-24-91	9:45 Am	002	[illegible]	Dan Dennis	4/30/91	
			SEE WHC C OF C		/pa	[illegible]	[illegible]	5/1	10:00
STORAGE	Charles Pier	Brian Shaffer	4-24-91	2:30 pm	V/A	[illegible]	[illegible]	5-1-91	17:30
[illegible]	[illegible]	K Shepard	4/25/91		FLSH	[illegible]	D Gates	5/2/91	8:00
PCB	[illegible]	[illegible]	4/26/91	8:45	Metals	[illegible]		5/29/91	9:00

WESTON Analytics Use Only
Samples Were: 1 Shipped or Hand-Delivered (Y) NOTES:
2 Ambient or Chilled (Y) NOTES:
3 Received Broken/Leaking (Improperly Sealed) Y (N) NOTES:
4 Properly Preserved (Y) N NOTES:
5 Received Within Holding Times Y (N) NOTES: 002,100 Received out of Hold
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:

9613424.0318

6

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

7-115

air bill # 9642182060

Custody Transfer Record/Lab Work Request

WESTON

WESTON Analytics Use Only
91041382 (US Hanford)

Client: Westinghouse Hanford Company/BE Innis
Work Order: ~~[illegible]~~ 6168-02-01
Date Rec'd.: 4/24/91 Date Due: As specified in SOW
RFW Contact: Peg Beaty
Client Contact/Phone: BE Innis (509) 376-7690

Refrigerator#										
#/Type Container	2 amber		amber glass					Clear glass		
Volume	40ml		1000 ml					500 ml		
Preservative	ice		ice					ice		
ANALYSES REQUESTED →	1	2	3	4	5	6	7	8	9	

WA Use Only Lab ID	Client ID/Description	Matrix	Date Collected	1	2	3	4	5	6	7	8	9
002	D B00J45	DL	4-22-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ANALYSES REQUESTED											
	1: VOA/HExone (CLP)											
	2: Semi-VOA/TBP (CLP)											
	3: Kerosene, PCB's (CLP)											
	4: ICP Metals (CLP)											
	5: Anions (300.0), Flashpoint	1010)										
	6: Alpha/Beta (PRO-032-1)											
	7: Gamma Scan (PRO-042-5)											
	8: Total Uranium (PRO-032-89)											
	9: Isotopic Uranium (PRO-052-32)											

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 to confirm condition of samples.

Item/Reason	Relinquished by	Received by	Date	Time	Item/Reason	Relinquished by	Received by	Date	Time
All	Fed-Ex	Brian Shaffer	4/24/91	9:30	Metals		McMahon	5/29/91	10:00
Rad Scan	Brian Shaffer	Charles Ryer	4/24-91	9:45 AM					
		SEE WHC COFC							
Anions		[illegible]	4/30/91	11:15					
Anions	[illegible]		4/30/91	1600					

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:

9613424.0319

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

Air bill # 7642181356

Custody Transfer Record/Lab Work Request

WESTON

WESTON Analytics Use Only
910HL402

WS-HANFORD

Client: Westinghouse Hanford/B.E. Innis
Work Order: EN52C 61168-02-01
Date Rec'd.: 4/26/91 Date Due: ~~As specified~~ 5/31/91
RFW Contact: Peg Beaty
Client Contact/Phone: B.E. Innis (509)376-~~8976~~ 7690

Refrigerator#									
#/Type Container	2 amber		1 amberglass			1 amber glass			
Volume	40ml		950ml			500ml			
Preservative	ice		ice			ice			
ANALYSES REQUESTED	1	2	3	4	5	6	7	8	9
	0624H	0625H	0625 OPCB	See Below	0625 IFH	ISOB			

WA Use Only Lab ID	Client ID/Description	Matrix	Date Collected	1	2	3	4	5	6	7	8	9
001	1)B00T39	DL	4-24-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	2)B00V48	DL	4-24-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
3	3)B00V49	DL	4-24-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
4	4)B00V50	DL	4-24-91	✓	✓	✓	✓	✓	✓	✓	✓	✓
5	5)B00V51	DL	4-24-91	✓	✓	✓	✓	✓	✓	✓	✓	✓

ANALYSES REQUESTED

1: VOA/Hexone (CLP) 0624H
2: Semi-VOA/TBP (CLP) 0625H
3: Kerosene, PCB's (CLP)
4: ICP Metals (CLP) (Westinghouse ICP)
5: Anions (300.0), Flashpoint (1010)
6: Alpha/Beta (PRO-032-1)
7: Gamma Scan (PRO-042-5)
8: Total Uranium (PRO-032-89)
9: Isotopic Uranium (PRO-052-32)

GCSC - Kerosene
GC/Dol = CLP
TAT = 35 day
GCSC = Dol Lab L375
Anions = ICCL, ICFL, ICSO4, ICPO4, ICNO3, ICNO2

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

Item/Reason	Relinquished by	Received by	Date	Time	Item/Reason	Relinquished by	Received by	Date	Time
Delivery	[illegible]	[illegible]	4/26/91	9:30am	ANIONS	[illegible]	T. Young	4/30/91	1600
RADSCEN	[illegible]	Charles [illegible]	4-26-91	9:45am	VOA	[illegible]	T. Young	5-1-91	10:12
STORAGE	Charles [illegible]	[illegible]	4-26-91	12:05pm	VOA	[illegible]	T. Young	5-1-91	17:30
VOA 5-32	D. Baumard		4-29-91		SEE WHC C OF C				
EXTOX-3005	[illegible]	K. Shepard	4-29-91	9:40	FL SIT	[illegible]	[illegible]	5/2/91	8:00
ANIONS	[illegible]	[illegible]	4/30/91	11:15	OPCB	[illegible]	L. Campbell	5-6-91	24d

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:

9613424.0320

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

7-115

9613424.0321

Roy F. Weston, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 4/10, 4/12, 4/18, 4/24 & 4/26/91

RFW #: 9104L227, 9104L268, 9104L326
9104L382, 9104L402
W.O. #: 6168-02-01

METALS NARRATIVE

The set of samples consisted of seventeen (17) water samples collected on 4/8, 4/10, 4/16, 4/22 and 4/24/91.

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 Al, Sb, Ba, Be, Cd, Cr, Co, Cu, Fe, Mn, Ni, Ag & V-. All corresponding samples were flagged with an "N" according to CLP protocol.

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

9613424.0322

VALIDATION SUMMARY

9613424.0523
9104L227-WS-041

Westinghouse Hanford Company

OSM ORGANIC DATA ASSESSMENT

DATE 7-25-91

REVIEWED BY M.A. Beck

LABORATORY Roy F. Weston

CASE #

SDG # 9104L227

SAMPLES/MATRIX B00J10-drum organic
B00J16 liquids
B00J18

DATA ASSESSMENT SUMMARY

	VOA	ABN	~~PEST~~ PCB
1. Holding Times (Form I)	O	X	O
2. Surrogate Recovery (II)	X	O	O
3. Matrix Spike/ MSD (III)	O	O	O
4. Blanks (IV)	O	O	O
5. GC/MS Tune (V)	O	O	
6. Calibration (VI-VII; VIII pest)	O	O	O
7. Internal Standards (VIII)	O	O	
8. Instr. Perform. (IX pest)			O
9. Other ( )	N/A	N/A	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 ASSESSMENT: good - surrogates all diluted out on VOA analysis, due to organic matrix.

NOTES :

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: 91041227 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 04/18/91 10:29 Page: 1a

	Cust ID:	B00J10	B00J16	B00J18	B00J18	B00J18	VBLK
Sample Information	RFW#:	001	003	005	005 MS	005 MSD	91LVX057-MB1
	Matrix:	DRUM	DRUM	DRUM	DRUM	DRUM	SOIL
	D.F.:	62500	312	62500	62500	62500	1.25
	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 %	104 %
	Bromofluorobenzene	D %	D %	D %	D %	D %	102 %
	1,2-Dichloroethane-d4	D %	D %	D %	D %	D %	101 %
Chloromethane		0.62E+08 U	310000 U	0.62E+08 U	0.62E+08 U	0.62E+08 U	1200 U
Bromomethane		0.62E+08 U	310000 U	0.62E+08 U	0.62E+08 U	0.62E+08 U	1200 U
Vinyl Chloride		0.62E+08 U	310000 U	0.62E+08 U	0.62E+08 U	0.62E+08 U	1200 U
Chloroethane		0.62E+08 U	310000 U	0.62E+08 U	0.62E+08 U	0.62E+08 U	1200 U
Methylene Chloride		0.27E+09 B	780000 B	0.20E+09 B	0.13E+09 B	0.81E+08 B	3100
Acetone		0.24E+09 B	910000 B	0.17E+09 B	0.13E+09 B	0.16E+09 B	3700
Carbon Disulfide		0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U
1,1-Dichloroethene		0.31E+08 U	160000 U	0.31E+08 U	71 %	67 %	620 U
1,1-Dichloroethane		0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U
1,2-Dichloroethene (total)		0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U
Chloroform		0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U
1,2-Dichloroethane		0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U
2-Butanone		0.62E+08 U	310000 U	0.62E+08 U	0.62E+08 U	0.62E+08 U	1200 U
1,1,1-Trichloroethane		0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U
Carbon Tetrachloride		0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U
Vinyl Acetate		0.62E+08 U	310000 U	0.62E+08 U	0.62E+08 U	0.62E+08 U	1200 U
Bromodichloromethane		0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U
1,2-Dichloropropane		0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U
cis-1,3-Dichloropropene		0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U
Trichloroethene		0.31E+08 U	160000 U	0.31E+08 U	100 %	101 %	620 U
Dibromochloromethane		0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U
1,1,2-Trichloroethane		0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U
Benzene		0.31E+08 U	160000 U	0.31E+08 U	103 %	106 %	620 U
Trans-1,3-Dichloropropene		0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U
Bromoform		0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U
4-Methyl-2-pentanone		0.10E+10	4100000	0.96E+09	0.10E+10 J	0.10E+10	1200 U
2-Hexanone		0.62E+08 U	310000 U	0.62E+08 U	0.62E+08 U	0.62E+08 U	1200 U
Tetrachloroethene		0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U
1,1,2,2-Tetrachloroethane		0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U

*= Outside of EPA CLP QC limits.

9613424.0324

Cust ID:	B00J10	B00J16	B00J18	B00J18	B00J18	VBLK
RFW#:	001	003	005	005 MS	005 MSD	91LVX057-MB1
Level:	MED	MED	MED	MED	MED	MED
Toluene	0.31E+08 U	160000 U	0.31E+08 U	101 %	105 %	620 U
Chlorobenzene	0.31E+08 U	160000 U	0.31E+08 U	100 %	102 %	620 U
Ethylbenzene	0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U
Styrene	0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U
Xylene (total)	0.31E+08 U	160000 U	0.31E+08 U	0.31E+08 U	0.31E+08 U	620 U

*= Outside of EPA CLP QC limits.

0000005

9613424.0325

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

RFW Batch Number: 9104L227 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 04/18/91 10:29 Page: 2a

Cust ID: VBLK

Sample Information	
RFW#:	91LVX058-MB1
Matrix:	SOIL
D.F.:	1.25
Units:	ug/Kg
Level:	MED

Surrogate Recovery			
	Toluene-d8	98	%
	Bromofluorobenzene	93	%
	1,2-Dichloroethane-d4	98	%

Chloromethane	1200	U
Bromomethane	1200	U
Vinyl Chloride	1200	U
Chloroethane	1200	U
Methylene Chloride	1300	
Acetone	4000	
Carbon Disulfide	620	U
1,1-Dichloroethene	620	U
1,1-Dichloroethane	620	U
1,2-Dichloroethene (total)	620	U
Chloroform	620	U
1,2-Dichloroethane	620	U
2-Butanone	1200	U
1,1,1-Trichloroethane	620	U
Carbon Tetrachloride	620	U
Vinyl Acetate	1200	U
Bromodichloromethane	620	U
1,2-Dichloropropane	620	U
cis-1,3-Dichloropropene	620	U
Trichloroethene	620	U
Dibromochloromethane	620	U
1,1,2-Trichloroethane	620	U
Benzene	620	U
Trans-1,3-Dichloropropene	620	U
Bromoform	620	U
4-Methyl-2-pentanone	1200	U
2-Hexanone	1200	U
Tetrachloroethene	620	U
1,1,2,2-Tetrachloroethane	620	U

*= Outside of EPA CLP QC limits.

9613424.0326

Cust ID: VBLK

RFW#: 91LVX058-MB1
Level: MED

Toluene	620	U
Chlorobenzene	620	U
Ethylbenzene	620	U
Styrene	620	U
Xylene (total)	620	U

*= Outside of EPA CLP QC limits.

0000007

9613424.0327

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

RFW Batch Number: 9104L227 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 06/03/91 10:25 Page: 1a

	Cust ID:	B00J10	B00J10	B00J10	B00J16	B00J16	B00J18
Sample Information	RFW#:	001	001 MS	001 MSD	003	003 DL	005
	Matrix:	DRUM	DRUM	DRUM	DRUM	DRUM	DRUM
	D.F.:	100	100	100	100	2000	100
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Nitrobenzene-d5	83 %	97 %	97 %	85 %	D %	92 %
	2-Fluorobiphenyl	102 %	113 %	114 %	105 %	D %	113 %
	p-Terphenyl-d14	104 %	118 %	115 %	116 %	D %	119 %
	Phenol-d5	79 %	91 %	93 %	90 %	D %	84 %
	2-Fluorophenol	88 %	100 %	97 %	68 %	D %	96 %
	2,4,6-Tribromophenol	50 %	72 %	71 %	54 %	D %	57 %
		fl	fl	fl	fl	fl	fl
Phenol		1000000 U	92 * %	99 * %	1000000 U J	NA	830000 U
bis(2-Chloroethyl)ether		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2-Chlorophenol		1000000 U	101 %	104 * %	1000000 U	NA	830000 U
1,3-Dichlorobenzene		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
1,4-Dichlorobenzene		1000000 U	117 * %	111 * %	1000000 U	NA	830000 U
Benzyl alcohol		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
1,2-Dichlorobenzene		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2-Methylphenol		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
bis(2-Chloroisopropyl)ether		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
4-Methylphenol		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
N-Nitroso-Di-n-propylamine		1000000 U	92 %	95 %	1000000 U	NA	830000 U
Hexachloroethane		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Nitrobenzene		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Isophorone		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2-Nitrophenol		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2,4-Dimethylphenol		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Benzoic acid		5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
bis(2-Chloroethoxy)methane		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2,4-Dichlorophenol		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
1,2,4-Trichlorobenzene		1000000 U	116 * %	116 * %	1000000 U	NA	830000 U
Naphthalene		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
4-Chloroaniline		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Hexachlorobutadiene		1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
4-Chloro-3-methylphenol		1000000 U	72 %	76 %	1000000 U	NA	830000 U
2-Methylnaphthalene		1000000 U	1000000 U	1000000 U	1000000 U J	NA	830000 U
Hexachlorocyclopentadiene		1000000 U	1000000 U	1000000 U	1000000 U J	NA	830000 U

*= Outside of EPA CLP QC limits.

9613424.0328

RFW Batch Number: 9104L227 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000

Cust ID:	B00J10	B00J10	B00J10	B00J16	B00J16	B00J18
RFW#:	001	001 MS	001 MSD	003	003 DL	005
2,4,6-Trichlorophenol	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2,4,5-Trichlorophenol	5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
2-Chloronaphthalene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2-Nitroaniline	5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
Dimethylphthalate	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Acenaphthylene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2,6-Dinitrotoluene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
3-Nitroaniline	5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
Acenaphthene	1000000 U	107 %	114 %	1000000 U	NA	830000 U
2,4-Dinitrophenol	5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
4-Nitrophenol	5000000 U	26 %	32 %	5000000 U	NA	4200000 U
Dibenzofuran	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
2,4-Dinitrotoluene	1000000 U	79 %	83 %	1000000 U	NA	830000 U
Diethylphthalate	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
4-Chlorophenyl-phenylether	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Fluorene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
4-Nitroaniline	5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
4,6-Dinitro-2-methylphenol	5000000 U	5000000 U	5000000 U	5000000 U	NA	4200000 U
N-Nitrosodiphenylamine (1)	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
4-Bromophenyl-phenylether	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Hexachlorobenzene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Pentachlorophenol	5000000 U	60 %	62 %	5000000 U	NA	4200000 U
Phenanthrene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Anthracene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Di-n-Butylphthalate	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Fluoranthene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Pyrene	1000000 U	127 %	125 %	1000000 U	NA	830000 U
Butylbenzylphthalate	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
3,3'-Dichlorobenzidine	2000000 U	2000000 U	2000000 U	2000000 U	NA	1700000 U
Benzo(a)anthracene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Chrysene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
bis(2-Ethylhexyl)phthalate	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Di-n-Octyl phthalate	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Benzo(b)fluoranthene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Benzo(k)fluoranthene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Benzo(a)pyrene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Indeno(1,2,3-cd)pyrene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Dibenzo(a,h)anthracene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Benzo(g,h,i)perylene	1000000 U	1000000 U	1000000 U	1000000 U	NA	830000 U
Tributylphosphate	1000000 U	1000000 U	1000000 U	E	0.12E+09	250000 J

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

9613424.0329

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

RFW Batch Number: 9104L227 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000

	Cust ID:	B00J18		SBLK		SBLK BS	
Sample Information	RFW#:	005 RE		91LE0481-MB1		91LE0481-MB1	
	Matrix:	DRUM		SOIL		SOIL	
	D.F.:	100		100		100	
	Units:	ug/Kg		ug/Kg		ug/Kg	
Surrogate Recovery	Nitrobenzene-d5	96	%	89	%	96	%
	2-Fluorobiphenyl	102	%	98	%	102	%
	p-Terphenyl-d14	128	%	119	%	122	%
	Phenol-d5	109	%	105	%	105	%
	2-Fluorophenol	110	%	102	%	103	%
	2,4,6-Tribromophenol	83	%	84	%	98	%
Phenol		830000	U	1000000	U	106 *	%
bis(2-Chloroethyl)ether		830000	U	1000000	U	1000000	U
2-Chlorophenol		830000	U	1000000	U	107 *	%
1,3-Dichlorobenzene		830000	U	1000000	U	1000000	U
1,4-Dichlorobenzene		830000	U	1000000	U	97	%
Benzyl alcohol		830000	U	1000000	U	1000000	U
1,2-Dichlorobenzene		830000	U	1000000	U	1000000	U
2-Methylphenol		830000	U	1000000	U	1000000	U
bis(2-Chloroisopropyl)ether		830000	U	1000000	U	1000000	U
4-Methylphenol		830000	U	1000000	U	1000000	U
N-Nitroso-Di-n-propylamine		830000	U	1000000	U	93	%
Hexachloroethane		830000	U	1000000	U	1000000	U
Nitrobenzene		830000	U	1000000	U	1000000	U
Isophorone		830000	U	1000000	U	1000000	U
2-Nitrophenol		830000	U	1000000	U	1000000	U
2,4-Dimethylphenol		830000	U	1000000	U	1000000	U
Benzoic acid		4200000	U	5000000	U	5000000	U
bis(2-Chloroethoxy)methane		830000	U	1000000	U	1000000	U
2,4-Dichlorophenol		830000	U	1000000	U	1000000	U
1,2,4-Trichlorobenzene		830000	U	1000000	U	107	%
Naphthalene		830000	U	1000000	U	1000000	U
4-Chloroaniline		830000	U	1000000	U	1000000	U
Hexachlorobutadiene		830000	U	1000000	U	1000000	U
4-Chloro-3-methylphenol		830000	U	1000000	U	110 *	%
2-Methylnaphthalene		830000	U	1000000	U	1000000	U
Hexachlorocyclopentadiene		830000	U	1000000	U	1000000	U

*= Outside of EPA CLP QC limits.

9613424.0330

Cust ID:	B00J18	SBLK	SBLK BS
RFW#:	005 RE	91LE0481-MB1	91LE0481-MB1
2,4,6-Trichlorophenol	830000 U	1000000 U	1000000 U
2,4,5-Trichlorophenol	4200000 U	5000000 U	5000000 U
2-Chloronaphthalene	830000 U	1000000 U	1000000 U
2-Nitroaniline	4200000 U	5000000 U	5000000 U
Dimethylphthalate	830000 U	1000000 U	1000000 U
Acenaphthylene	830000 U	1000000 U	1000000 U
2,6-Dinitrotoluene	830000 U	1000000 U	1000000 U
3-Nitroaniline	4200000 U	5000000 U	5000000 U
Acenaphthene	830000 U	1000000 U	114 %
2,4-Dinitrophenol	4200000 U	5000000 U	5000000 U
4-Nitrophenol	4200000 U	5000000 U	97 %
Dibenzofuran	830000 U	1000000 U	1000000 U
2,4-Dinitrotoluene	830000 U	1000000 U	103 * %
Diethylphthalate	830000 U	1000000 U	1000000 U
4-Chlorophenyl-phenylether	830000 U	1000000 U	1000000 U
Fluorene	830000 U	1000000 U	1000000 U
4-Nitroaniline	4200000 U	5000000 U	5000000 U
4,6-Dinitro-2-methylphenol	4200000 U	5000000 U	5000000 U
N-Nitrosodiphenylamine (1)	830000 U	1000000 U	1000000 U
4-Bromophenyl-phenylether	830000 U	1000000 U	1000000 U
Hexachlorobenzene	830000 U	1000000 U	1000000 U
Pentachlorophenol	4200000 U	5000000 U	89 %
Phenanthrene	830000 U	1000000 U	1000000 U
Anthracene	830000 U	1000000 U	1000000 U
Di-n-Butylphthalate	830000 U	1000000 U	1000000 U
Fluoranthene	830000 U	1000000 U	1000000 U
Pyrene	830000 U	1000000 U	123 %
Butylbenzylphthalate	830000 U	1000000 U	1000000 U
3,3'-Dichlorobenzidine	1700000 U	2000000 U	2000000 U
Benzo(a)anthracene	830000 U	1000000 U	1000000 U
Chrysene	830000 U	1000000 U	1000000 U
bis(2-Ethylhexyl)phthalate	830000 U	1000000 U	1000000 U
Di-n-Octyl phthalate	830000 U	1000000 U	1000000 U
Benzo(b)fluoranthene	830000 U	1000000 U	1000000 U
Benzo(k)fluoranthene	830000 U	1000000 U	1000000 U
Benzo(a)pyrene	830000 U	1000000 U	1000000 U
Indeno(1,2,3-cd)pyrene	830000 U	1000000 U	1000000 U
Dibenzo(a,h)anthracene	830000 U	1000000 U	1000000 U
Benzo(g,h,i)perylene	830000 U	1000000 U	1000000 U
Tributylphosphate	250000 J	1000000 U	1000000 U

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

9613424.0331

Roy F. Weston, Inc. - Lionville Laboratory

PCBs by GC

Report Date: 05/22/91 09:05

RFW Batch Number: 9104L227 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Page: 1

	Cust ID:	BOOJ10	BOOJ10	BOOJ10	BOOJ11	BOOJ16	BOOJ17
Sample Information	RFW#:	001	001 MS	001 MSD	002	003	004
	Matrix:	DRUM	DRUM	DRUM	DRUM	DRUM	DRUM
	D.F.:	0.500	0.500	0.500	0.500	0.500	0.500
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate: Di-n-butylchlorendate		100 %	99 %	I %	101 %	98 %	101 %
Aroclor-1016		12000 U	12000 U	12000 U	12000 U	12000 U	12000 U
Aroclor-1221		12000 U	12000 U	12000 U	12000 U	12000 U	12000 U
Aroclor-1232		12000 U	12000 U	12000 U	12000 U	12000 U	12000 U
Aroclor-1242		12000 U	12000 U	12000 U	12000 U	12000 U	12000 U
Aroclor-1248		12000 U	12000 U	12000 U	12000 U	12000 U	12000 U
Aroclor-1254		24000 U	85 %	91 %	24000 U	24000 U	24000 U
Aroclor-1260		24000 U	24000 U	24000 U	24000 U	24000 U	24000 U

	Cust ID:	BOOJ18	PBLK	PBLK BS
Sample Information	RFW#:	005	91LE0480-MB1	91LE0480-MB1
	Matrix:	DRUM	SOIL	SOIL
	D.F.:	0.500	0.500	0.500
	Units:	ug/Kg	ug/Kg	ug/Kg
Surrogate: Di-n-butylchlorendate		101 %	108 %	101 %
Aroclor-1016		12000 U	12000 U	12000 U
Aroclor-1221		12000 U	12000 U	12000 U
Aroclor-1232		12000 U	12000 U	12000 U
Aroclor-1242		12000 U	12000 U	12000 U
Aroclor-1248		12000 U	12000 U	12000 U
Aroclor-1254		24000 U	24000 U	96 %
Aroclor-1260		24000 U	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

9613424.0332

9613424.0333

ORGANIC QC - Holding Times

Name Mark A. Beckman Date 7/26/91

COMMENTS: all holding times met except for B00J16
>40 days extract to analysis
all holding times for Pesticides met, but just barely.
Holding times met for VOA

ACTION: Qualified B00J16 all analytes estimated

sample #	constituent	value/qual
B00J16	all SemiVOA	J

sample #	constituent	value/qual

ORGANIC QC - Surrogate Recovery

Name CJ Simuelli Date 7-28-91

COMMENTS: VOA/BNA- both had several surrogates diluted out due to organic matrix of samples. PCB- surrogate % recoveries are all with in required control limits. ~~fort~~ WS 7-28-91

ACTION: None - users should be aware of unusual organic matrix for trace organics analysis

sample #	constituent	value/qual	sample #	constituent	value/qual

9613424.0335

ORGANIC QC - MS/MSD

Name Mark A. Beckman Date 7/25/91

COMMENTS: Phenol, 1,4-Dichlorobenze, 1,2,4-Trichlorobenze have both MS and MSD out of control, all high. Pesticide/PCB had no problem with MS/MSD, both were within limits. VOA- MS/MSD values (% Rec. and RPD) are within limits.

ACTION: Note that the above compound may show false positives near the IDL (Semi VOA). None for PCB/pesticide. VOA - none.

sample #	constituent	value/qual	sample #	constituent	value/qual

ORGANIC QC - Blanks

Name Mark A. Beckmann Date 7/25/91

COMMENTS: no contaminants seen in blanks. Extremely high detection limits (1000 ppm), so not suprising. An appropriate method Blank was run (SemiVOA). (PCB/PEST) a method blank was run. no contaminants detected.

Vo Aq. Method blanks are associated with all samples, MS and MSD. no contaminants seen.

ACTION: none, except to note the ~~extr~~ high ~~deste~~ detection limits. VOA - none

sample #	constituent	value/qual	sample #	constituent	value/qual

9613424.0337

ORGANIC QC - GC/MS Tune

Name Mark A. Beck mas. Date 7/25/91

COMMENTS: all % relative abundances were met. All ~~tune~~ 12 hr tune requirements were met. (Semi VOA) VOA - All % relative abundances meet needed criteria. A Tune was performed for each 12 hrs. in which a sample ~~was~~ was run.

ACTION: ~~Ans~~ none, VOA, Semi VOA

sample #	constituent	value/qual	sample #	constituent	value/qual

9613424.0338

ORGANIC QC - Calibrations

Name Mark A. Beckman Date 7/25/91

COMMENTS: All SPCC and CCC fall within control limits. ~~Initial~~ Initial and continuing calibrations done at appropriate intervals (semi VOA). PCB/PEST - Initial linearity check <10% (OK) on both instruments used. The correct 72 hour analytical sequence was followed for both istruments used. 2,0 standard (<15%) met. VOA - all Initial and continuing Calibrations OK, both RRF50 and 2,0

ACTION: no qualifications needed.

sample #	constituent	value/qual	sample #	constituent	value/qual

9613424.0339

ORGANIC QC - Internal Standards

Name Mark A. Bedgood Date 9/25/91

COMMENTS: all internal standards for all ~~runs~~ days in which runs were made met area and retention time criteria.

VOA - ~~on~~ Retention time and area criteria met.

ACTION: none, none needed

sample #	constituent	value/qual	sample #	constituent	value/qual

9613424.0340

ORGANIC QC - Instrument Performance (pest)

Name MARK A. Beckman Date 7/25/97

COMMENTS: all DDT ~~retent~~ retention time 7.12 min. for all columns. All standards are within retention time window for both columns. Total endrin and DDT breakdown ~~was~~ never exceeds 4% (20% limit). % D retention time for DBC never exceeds 0.3% limit.

ACTION: none, none needed

sample #	constituent	value/qual	sample #	constituent	value/qual

ORGANIC QC - Other

Name Mark A. Beck M.A.B. Date 7/26/91

COMMENTS: none for ~~to~~ Semi VOA

none for PCB/PEST

VOA. - Due to the sample being very high in 4 methyl-2 pentanone ("hexone") no trace compounds could possibly have been observed. Matrix spike recoverie are not relevant.

ACTION: none for Semi VOA none for PCB/PEST.

sample #	constituent	value/qual	sample #	constituent	value/qual

9613424.0342

WESTON
MANAGERS DESIGNERS/CONSULTANTS
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE, PA 19341-1313
PHONE: (215) 524-7360
TELEX: 83-5348

10 June 1991

Ms. Renee Owens
Westinghouse-Hanford
2355 Stevens Drive
200W/MO-346/T6-08
Richland, WA 99352

JUN 1991
RECEIVED
DATA RECEIPT

RE: Analytical Results

Dear Renee:

Enclosed are the following data packages:

RFW No.	Parameters
9102L599	VOA, BNA (This completes this batch).
9102L600	Metals/CN, VOA, BNA (This completes this batch).
9102L658	Pest/PCB, VOA, BNA (The metals were sent back to data reporting for re-copying). I will mail it to you 6/11/91.
9103L118	Metals/CN (This completes this batch).
9104L189	Wet Chemistry, Metals/CN (This completes this batch).
9104L268 ✓	Wet Chemistry, Metals/CN, Pest/PCB, VOA, BNA, GC Scan (This completes this batch).
9104L328	VOA (This completes this batch).
9104L383	Wet Chemistry, VOA (This completes this batch).
9104L227 ✓	Metals/CN (with RFW batch 9104L268)
9104L326 ✓	Metals/CN (with RFW batch 9104L268)
9104L382 ✓	Metals/CN (with RFW batch 9104L268)
9104L402 ✓	Metals/CN (with RFW batch 9104L268)

WESTON

Please give me a call if you have any questions.

Very truly yours,

ROY F. WESTON, INC.

Josie King

Josie King
Project Information Analyst
Analytics Division

cc: Peg Beaty (WESTON)

9613424.0344

Westinghouse
Hanford Company

OSM INORGANIC DATA ASSESSMENT

DATE 7-25-91

REVIEWED BY M.A Beck (w/ samples)

LABORATORY Roy F. Weston

CASE # West

SDG # CLP 227

RFW # 9104L227 / 9104L382
9104L268 / 9104L326 / 9104L402

SAMPLES/MATRIX B00J10 B00J16 B00V46 B00V39
B00J13 B00J18 B00V47 B00V51
B00J14 B00J19 B00V48 B00J07 (drum organic liquids)
B00J12 B00V07 B00V49
B00J15 B00V45 B00V50

DATA ASSESSMENT SUMMARY

	ICP	AA	Hg	CN
1. Calibrations (Form II)	O			
2. Blanks (III)	X			
3. ICS (IV)	X			
4. Matrix Spike (V)	X			
5. Duplicate Analysis (VI)	O			
6. LCS (VII)	O			
7. Serial Dilution (IX)	X			
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: fair - minor QC problems with data provided

NOTES:

o Refer to the corresponding attachments for explanation of any problems.

9613424.0345

U.S. EPA - CLP 0000014

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ10

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104227001

Level (low/med): LOW Date Received:04/10/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	130	~~B~~	~~N~~ 4	P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00		N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	310	~~B~~	4	P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	36.1		N	P
7439-89-6	Iron	212		N	P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.50	~~B~~	~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	404	~~B~~	4	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	171		~~*E~~ J4	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

MGB. 7/25/91

FORM I - IN

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ16

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104227003

Level (low/med): LOW Date Received:04/10/91

% 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	N	P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	353	~~B~~	U	P
7440-47-3	Chromium	4.20	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	11.6	B	N	P
7439-89-6	Iron	94.0	B	N	P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	243	~~B~~	U	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	45.4		~~*E~~ ~~UJ~~	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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FORM I - IN

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ18

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104227005

Level (low/med): LOW Date Received:04/10/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	125	B	N	P
7440-36-0	Antimony	20.1	B	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	328	~~B~~	U	P
7440-47-3	Chromium	3.70	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	44.3		N	P
7439-89-6	Iron	166		N	P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.50	~~B~~	~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	223	~~B~~	U	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	115		~~*E~~ ~~4J~~	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

mab. 7/25/91

FORM I - IN

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ12

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104268001

Level (low/med): LOW Date Received:04/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	199	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	282	~~B~~	U	P
7440-47-3	Chromium	3.40	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.30	B	N	P
7439-89-6	Iron	156			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	132	~~B~~	UJ	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	69.0		~~*E~~ UJ	P
	Cyanide				C

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

MAB 7/25/91

FORM I - IN

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ13

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104268002

Level (low/med): LOW Date Received:04/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	136	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	322	~~B~~	U	P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	12.1	B	N	P
7439-89-6	Iron	286			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	3.10	~~B~~	~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	P
7440-09-7	Potassium	1690	~~B~~	U	P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	183	~~B~~	UJ	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	48.9		~~*B~~ UJ	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ14

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104268003

Level (low/med): LOW Date Received:04/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	127	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	350	~~B~~	4	P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	11.2	B	N	P
7439-89-6	Iron	216			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00		~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	13.2	B	N	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	356	~~B~~	4	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	53.7		~~*E~~ 4 J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ15

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104268004

Level (low/med): LOW Date Received:04/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	295			P
7440-36-0	Antimony	42.8	B	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	297	~~B~~	U	P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	11.6	B	N	P
7439-89-6	Iron	195			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	15.4	B	N	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	231	~~B~~	U	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	52.0		~~*E~~ J	P
	Cyanide				

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.

BOOJ19

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104268005

Level (low/med): LOW Date Received:04/12/91

% 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	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	408	~~B~~ U		P
7440-47-3	Chromium	4.40	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	25.9		N	P
7439-89-6	Iron	834			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	94.0	~~N~~ J		P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	380	~~B~~ U		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	93.0	~~*E~~ W		P
	Cyanide				

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.

BOOJ46

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104326001

Level (low/med): LOW Date Received:04/18/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	95.8	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	480	~~B~~	4	P
7440-47-3	Chromium	4.60	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	36.5		N	P
7439-89-6	Iron	204			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	7.70	~~B~~	~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	11.4	B	N	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	898	~~B~~	4	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	867		~~*E~~ 4J	P
	Cyanide				

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.

BOOJ47

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104326002

Level (low/med): LOW Date Received:04/18/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	128	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	325	~~B~~	U	P
7440-47-3	Chromium	3.20	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	15.8	B	N	P
7439-89-6	Iron	3380			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	3.70	~~B~~	~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	9.90	B		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	98.5	~~B~~	UJ	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	782		*E J	P
	Cyanide				

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.

B00J07

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104382001

Level (low/med): LOW Date Received:04/24/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	124	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	335	~~B~~	4	P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.60	B	N	P
7439-89-6	Iron	2680			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	20.0		~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	335	~~B~~	4	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	30.6		*E UJ	P
	Cyanide				

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.

DB00J45

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104382002

Level (low/med): LOW Date Received:04/24/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	575			P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	368	~~B~~	9	P
7440-47-3	Chromium	18.0		N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.80	B	N	P
7439-89-6	Iron	404			P
7439-92-1	Lead				
7439-95-4	Magnesium	1300	B		P
7439-96-5	Manganese	4.20	~~B~~	~~N~~	P
7439-97-6	Mercury				
7440-02-0	Nickel	8.30	B	N	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	347	~~B~~	9	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	43.8		*E F	P
	Cyanide				

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.

BOOJ39

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104402001

Level (low/med): LOW Date Received:04/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	87.3	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	242	~~B~~ U		P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.00	U	N	P
7439-89-6	Iron	146			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	78.5	~~B~~ U	J	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	51.2		*E J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

m.a.B.
7/25/91

FORM I - IN

9613424.0358

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV48

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104402002

Level (low/med): LOW Date Received:04/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	83.5	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	290	~~B~~	4	P
7440-47-3	Chromium	6.00	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.80	B	N	P
7439-89-6	Iron	169			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	136	~~B~~	4J	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	38.8		*E J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

mgB
7/25/91

FORM I - IN

9613424.0359

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV49

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104402003

Level (low/med): LOW Date Received:04/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	118	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	339	~~B~~ U		P
7440-47-3	Chromium	3.40	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.30	B	N	P
7439-89-6	Iron	197			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	3.00	~~B~~ ~~N~~ J		P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	P
7440-09-7	Potassium	1100	~~B~~ U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	1130	~~B~~ U		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	49.1		*E J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

mgb. 7/25/91

FORM I - IN

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV50

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104402004

Level (low/med): LOW Date Received:04/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	109	B		P
7440-36-0	Antimony	29.0	B	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	293	~~B~~	~~U~~	P
7440-47-3	Chromium	3.60	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.30	B	N	P
7439-89-6	Iron	131			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	73.5	~~B~~	UJ	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	126		*E J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

m.a.b.
7/25/91

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV51

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104402005

Level (low/med): LOW Date Received:04/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	87.3	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	308	~~B~~	4	P
7440-47-3	Chromium	5.90	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	10.8	B	N	P
7439-89-6	Iron	123			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.20	~~B~~	~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	25.7	B	N	P
7440-09-7	Potassium	1050	~~B~~	4	P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	442	~~B~~	4	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	41.3		*E J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

MGB 7/25/91

FORM I - IN

9613424.0362

INORGANIC QC - Calibrations

Name Mark A. Beck MAB Date 7/25/91

COMMENTS: No Runlog found, raw data indicates that all standards were run at appropriate times. Hg, CN not analyzed for, no standards needed. Initial, Continuing calibration recovery within limits.

ACTION: none

sample #	constituent	value/qual	sample #	constituent	value/qual

9613424.0363

INORGANIC QC - Calibrations

Name MA Beck Date 7-25-91

COMMENTS: Contaminants detected in preparation blank for Ca, Mg, K, Na and Zn.

ACTION: Qualify all associated samples as per OSM guidelines

sample #	constituent	value/qual
B00J07	Zn	u
B00J13	K	u
B00V49	K	u
B00V51	K	u
LLI 18 samples	Ca	u
	Zn	u

sample #	constituent	value/qual

9613424.0364

INORGANIC QC - ICS

Name MARK A. BECK MAB. Date 7/25/91

COMMENTS: ICS done before and after analysis runs, as per CLP protocol. all recoveries within limits. Mn, K had positive amounts on ICS samples, despite the fact that they ~~sat schou~~ should not be present. Na showed negative.

ACTION: Qualified associated results J if values near ICS values. For Na qualified results < |ICS| results as UJ

sample #	constituent	value/qual
B00J10	Mn	J
~~B00J11~~	~~Mn~~ CLS 7-28-91	
B00J18		
B00J13		
B00J14		
B00J19		
B00J46		
B00J47		
B00J07		
B00J45		
B00V49		
B00V51		

sample #	constituent	value/qual
~~A00J1~~ CLS 7-28-91	Na	UJ
B00J12		
B00J13		
B00J47		
B00J39		
B00J48		
~~B00J5~~ CLS 7-28-91		
B00V50		

none

K

none detected, no possible false positives.

9613424.0365

INORGANIC QC - Matrix Spike

Name MARK A. BECK mab. Date 7/25/91

COMMENTS: All analytes except zinc out of control limits. All data (results) except zinc ≤ IDL ~~qual~~ qualified as UJ all result > IDL qualified J

ACTION: As stated above. All results to be considered ~~esp~~ estimated. All results except Zn biased low on basis of low spike recovery.

sample #	constituent	value/qual	sample #	constituent	value/qual
all 18 samples	all except Zn	J (detects) or UJ (non-detects			

INORGANIC QC - Duplicate Analysis

Name Mark A. Beck MAB Date 7/25/91

COMMENTS: Field blank not present, therefore not used inappropriately as Duplicate sample. All ~~samples~~ results < CRDL or < 5x CRDL and either no control limit applies or the deviation is within ± CRDL for that analyte.

ACTION: none

sample #	constituent	value/qual	sample #	constituent	value/qual

9613424.0367

INORGANIC QC - LCS

Name MARK A. BECK mgr. Date 7/25/91

COMMENTS: all ~~tests~~ analyte within control limits

ACTION: none

sample #	constituent	value/qual	sample #	constituent	value/qual

INORGANIC QC - Serial Dilution

Name Mark A. Beck mas. Date 7/25/91

COMMENTS: Zn % D >10% Zn concentration for sample > 10x IDL. All other analytes had an original concentration <10x IDL so no control limit ~~applied~~ applied. No significant interferences seen.

ACTION: qualified Zn as below

sample #	constituent	value/qual	sample #	constituent	value/qual
all 18 samples	Zn	J			

INORGANIC QC - Holding Times

Name Mark O. Beck mom. Date 7/25/91

COMMENTS: All Holding times met. all samples preserved to ← pH < 2.

ACTION: none

sample #	constituent	value/qual	sample #	constituent	value/qual

INORGANIC QC - other

Name Mark A. Beck m.a.b. Date 7/25/91

COMMENTS: none

ACTION: none

sample #	constituent	value/qual	sample #	constituent	value/qual

APPENDIX E

LEVEL C DOCUMENTATION

Westinghouse
Hanford Company

OSM RCRA LEVEL C DATA ASSESSMENT

DATE 7/29/91

REVIEWED BY Mark A. Beck

LABORATORY WESTON

CASE # 91046227

SDG #

SAMPLES/MATRIX B00J10 B00J11 B00J16 B00J17 B00J18

DATA ASSESSMENT SUMMARY

QUALITY CONTROL CHECK / ANALYSIS	IC	Flash point	
1. Requested vs Reported	O	O	
2. Holding Times	X		
3. Matrix Spike	O		
4. Duplicate analyses	O		
5. Blanks	O		
6. Calibration	O		
7. Laboratory Control Sample	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: NO_3 nitrate ~~to~~ may be low - see holding times
other anions may be biased high - see calibration

NOTES:

o Refer to the corresponding attachments for explanation of any problems.

9613424.0372

RCRA LEVEL C QC

Name Mark A. Beck mab Date 7/29/91

QC Check: Requested Vs. Reported Analyses

COMMENTS: all samples had both Ion Chromatography and Flash point analyses performed as requested.

ACTION: none - none needed

sample #	constituent	value/qual	sample #	constituent	value/qual

RCRA LEVEL C QC

Name Mark A. Beck mgb Date 7/29/91

QC Check: Holding times

COMMENTS: Holding times were met for all analytes except NO_3^- - nitrate and NO_2^- nitrite. Flashpoint has no formal holding time requirement.

ACTION: Qualified all nitrite and nitrate analyses (J) estimated. Nitrite (NO_2^-) bias will be low, nitrate (NO_3^-) should not be affected much.

sample #	constituent	value/qual	sample #	constituent	value/qual
all	nitrite NO_2^- nitrate NO_3^-	J			

9613424.0374

RCRA LEVEL C QC

Name Mark A. Beckman Date 7/29/91

QC Check: Matrix Spike

COMMENTS: No Matrix Spike per se was performed, but blank spikes were, and the blank and sample matrix should be similar (water) so no problems should arise. Blank spike recoveries within limits, but all analytes gave high recoveries.

ACTION: none.

sample #	constituent	value/qual	sample #	constituent	value/qual

RCRA LEVEL C QC

Name Mark A. Beck MAB Date 7/29/91

QC Check: Duplicate Analyses

COMMENTS: Duplicate analyses run on all samples as serial dilutions. All analyses good to within ~~ex~~ precision of method (± 0.5 mg/L)

ACTION: none

sample #	constituent	value/qual	sample #	constituent	value/qual

RCRA LEVEL C QC

Name Mark A. Beck mgr Date 7/29/91

QC Check: Analytical Blanks ~~and~~

COMMENTS: No contamination found in blanks.

ACTION: none - none needed.

sample #	constituent	value/qual	sample #	constituent	value/qual

9613424.0377

RCRA LEVEL C QC

Name Mark G. Beck MGB Date 7/30/91

QC Check: ~~7~~ Calibration

COMMENTS: Calibrations run at ~~beion~~ beginning and end of run, and after every 5 samples. Calibration criteria are not established for this method, and so were not evaluated.

ACTION: none -

sample #	constituent	value/qual	sample #	constituent	value/qual

RCRA LEVEL C QC

Name Mark A. Beck Date 7/30/91

QC Check: Laboratory Control Sample

COMMENTS: Matrix blank spikes were used as LCS, all recoveries within 80-120% - all recoveries high

ACTION: none

sample #	constituent	value/qual	sample #	constituent	value/qual

9613424.0379

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 04-10-91
RFW #: 9104L227
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, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

5.6.91
Date

JUN 1991
RECEIVED
DATA RECEIPT

pas.21\i4-227

ROY F. WESTON
INORGANICS DATA SUMMARY REPORT
PHYSICAL TESTING OBSERVATIONS

CLIENT: WESTINGHOUSE HANFORD
RFW #: 9104L227 -001 thru -005
W.O. #: 6168-02-01

SAMPLES RECEIVED: 04-10-91

Analyte:	**Observation:**
Flashpoint (IFLSH)	Vapors began to burn at: 47.86° for sample -001 47.86° for sample -002 51.86° for sample -002R 65.86° for sample -003 54.86° for sample -004 55.86° for sample -005 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 76.86°F.

9613424.0381

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/03/91

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

WESTON BATCH #: 9104L227

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	BOOJ10	Chloride by IC	0.50 u	mg/L	0.50
		Fluoride by IC	28.3	mg/L	10.0
		Nitrite by IC	0.50 uJ	mg/L	0.50
		Nitrate by IC	0.50 uJ	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	47.9	DEG/F	20.0
-002	BOOJ11	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 uJ	mg/L	0.50
		Nitrate by IC	0.50 uJ	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	47.9	DEG/F	20.0
-003	BOOJ16	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 uJ	mg/L	0.50
		Nitrate by IC	0.50 uJ	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	65.9	DEG/F	20.0
-004	BOOJ17	Chloride by IC	0.50 u	mg/L	0.50
		Fluoride by IC	6.9	mg/L	1.0
		Nitrite by IC	0.50 uJ	mg/L	0.50
		Nitrate by IC	28.5 J	mg/L	0.50
		Phosphate by IC	0.52	mg/L	0.50
		Sulfate by IC	1.6	mg/L	0.50
		Flash Point	54.9	DEG/F	20.0
-005	BOOJ18	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 uJ	mg/L	0.50
		Nitrate by IC	0.50 uJ	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	55.9	DEG/F	20.0

9613424.0382

ROY F. WESTON INC.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 05/03/91

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

WESTON BATCH #: 9104L227

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 uJ	mg/L	0.25
		Nitrate by IC	0.25 uJ	mg/L	0.25
		Phosphate by IC	0.25 u	mg/L	0.25
		Sulfate by IC	0.25 u	mg/L	0.25

9613424.0383

ROY F. WESTON INC.

INORGANICS ACCURACY REPORT 05/03/91

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

WESTON BATCH #: 9104L227

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	91LFP018-MB1	Flash Point	76.8	0.00	77.0	99.8
BLANK20	91LFP018-MB2	Flash Point	76.9		77.0	99.8

9613424.0384

ROY F. WESTON INC.

INORGANICS PRECISION REPORT 05/03/91

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

WESTON BATCH #: 9104L227

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	% DIFF
-002REP	BOOJ11	Flash Point	47.9	51.9	8.0

9613424.0385

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 04-10-91
RFW #: 9104L227
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, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

5.6.91
Date

JUN 1991
RECEIVED
DATA RECEIPT

pas.21\i4-227

ROY F. WESTON
INORGANICS DATA SUMMARY REPORT
PHYSICAL TESTING OBSERVATIONS

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 04-10-91
RFW #: 9104L227 -001 thru -005
W.O. #: 6168-02-01

Analyte:	**Observation:**
Flashpoint (IFLSH)	Vapors began to burn at: 47.86° for sample -001 47.86° for sample -002 51.86° for sample -002R 65.86° for sample -003 54.86° for sample -004 55.86° for sample -005 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 76.86°F.

9613424.0387

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/03/91

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

WESTON BATCH #: 9104L227

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	BOOJ10	Chloride by IC	0.50 u	mg/L	0.50
		Fluoride by IC	28.3	mg/L	10.0
		Nitrite by IC	0.50 uJ	mg/L	0.50
		Nitrate by IC	0.50 uJ	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	47.9	DEG/F	20.0
-002	BOOJ11	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 uJ	mg/L	0.50
		Nitrate by IC	0.50 uJ	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	47.9	DEG/F	20.0
-003	BOOJ16	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 uJ	mg/L	0.50
		Nitrate by IC	0.50 uJ	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	65.9	DEG/F	20.0
-004	BOOJ17	Chloride by IC	0.50 u	mg/L	0.50
		Fluoride by IC	6.9	mg/L	1.0
		Nitrite by IC	0.50 uJ	mg/L	0.50
		Nitrate by IC	28.5 J	mg/L	0.50
		Phosphate by IC	0.52	mg/L	0.50
		Sulfate by IC	1.6	mg/L	0.50
		Flash Point	54.9	DEG/F	20.0
-005	BOOJ18	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 uJ	mg/L	0.50
		Nitrate by IC	0.50 uJ	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	55.9	DEG/F	20.0

9613424.0388

ROY F. WESTON INC.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 05/03/91

CLIENT: WESTINGHOUSE HANFORD

WESTON BATCH #: 9104L227

WORK ORDER: 6168-02-01-0000

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 uJ	mg/L	0.25
		Nitrate by IC	0.25 uJ	mg/L	0.25
		Phosphate by IC	0.25 u	mg/L	0.25
		Sulfate by IC	0.25 u	mg/L	0.25

9613424.0389

ROY F. WESTON INC.

INORGANICS ACCURACY REPORT 05/03/91

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

WESTON BATCH #: 9104L227

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	91LFP018-MB1	Flash Point	76.8	0.00	77.0	99.8
BLANK20	91LFP018-MB2	Flash Point	76.9		77.0	99.8

9613424.0390

ROY F. WESTON INC.

INORGANICS PRECISION REPORT 05/03/91

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

WESTON BATCH #: 9104L227

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	% DIFF
-002REP	BOOJ11	Flash Point	47.9	51.9	8.0

9613424.0391

Westinghouse
Hanford Company

OSM INORGANIC DATA ASSESSMENT

DATE 7-25-91

REVIEWED BY M. A Beck

LABORATORY Roy F. Weston

CASE # West

SDG # CLP 227

RFW # 9104L227 / 9104L382
9104L268 / 9104L326 / 9104L402

SAMPLES/MATRIX B00J10 B00J16 B00V46 B00V39
B00J13 B00J18 B00V47 B00V51
B00J14 B00J19 B00V48 B00J07 (drum organic liquids)
B00J12 B00V07 B00V49
B00J15 B00V45 B00V50

DATA ASSESSMENT SUMMARY

	ICP	AA	Hg	CN
1. Calibrations (Form II)	O			
2. Blanks (III)	X			
3. ICS (IV)	X			
4. Matrix Spike (V)	X			
5. Duplicate Analysis (VI)	O			
6. LCS (VII)	O			
7. Serial Dilution (IX)	X			
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: fair- minor QC problems with data provided

NOTES:

o Refer to the corresponding attachments for explanation of any problems.

9613424.0392

U.S. EPA - CLP 0000014

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ10

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104227001

Level (low/med): LOW Date Received:04/10/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	130	~~B~~	~~N~~ ~~4~~	P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00		N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	310	~~B~~	4	P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	36.1		N	P
7439-89-6	Iron	212		N	P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.50	~~B~~	~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	404	~~B~~	4	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	171		~~*E J 4~~	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ok mgs

MAB. 7/25/91

FORM I - IN

9613424.0393

0000015

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ16

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104227003

Level (low/med): LOW Date Received:04/10/91

% 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	N	P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	353	~~B~~	U	P
7440-47-3	Chromium	4.20	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	11.6	B	N	P
7439-89-6	Iron	94.0	B	N	P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	243	~~B~~	U	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	45.4		~~*E~~ UJ	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

m.a.B.
7/25/91

FORM I - IN

9613424.0394

0000015

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ18

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104227005

Level (low/med): LOW Date Received:04/10/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	125	B	N	P
7440-36-0	Antimony	20.1	B	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	328	~~B~~	U	P
7440-47-3	Chromium	3.70	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	44.3		N	P
7439-89-6	Iron	166		N	P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.50	~~B~~	~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	223	~~B~~	U	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	115		~~*E~~ UJ	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

mab. 7/25/91

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ12

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104268001

Level (low/med): LOW Date Received:04/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	199	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	282	~~B~~	U	P
7440-47-3	Chromium	3.40	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.30	B	N	P
7439-89-6	Iron	156			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	132	~~B~~	UJ	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	69.0		~~*B~~ UJ	P
	Cyanide				C

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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FORM I - IN

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ13

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104268002

Level (low/med): LOW Date Received:04/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	136	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	322	~~B~~	U	P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	12.1	B	N	P
7439-89-6	Iron	286			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	3.10	~~B~~ ~~N~~	J	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	P
7440-09-7	Potassium	1690	~~B~~	U	P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	183	~~B~~	UJ	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	48.9		~~B~~ UJ	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ14

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104268003

Level (low/med): LOW Date Received:04/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	127	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	350	~~B~~	4	P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	11.2	B	N	P
7439-89-6	Iron	216			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00		~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	13.2	B	N	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	356	~~B~~	4	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	53.7		~~*E~~ 4 J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

MAB 7/25/91

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ15

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104268004

Level (low/med): LOW Date Received:04/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	295			P
7440-36-0	Antimony	42.8	B	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	297	~~B~~	U	P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	11.6	B	N	P
7439-89-6	Iron	195			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	15.4	B	N	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	231	~~B~~	U	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	52.0	~~*E~~	J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ19

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104268005

Level (low/med): LOW Date Received:04/12/91

% 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	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	408	~~B~~ U		P
7440-47-3	Chromium	4.40	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	25.9		N	P
7439-89-6	Iron	834			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	94.0	~~N~~ J		P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	380	~~B~~ U		P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	93.0	~~*E~~ W		P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

MAB. 7/25/91

FORM I - IN

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0000022

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ46

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104326001

Level (low/med): LOW Date Received:04/18/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	95.8	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	480	~~B~~	4	P
7440-47-3	Chromium	4.60	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	36.5		N	P
7439-89-6	Iron	204			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	7.70	~~B~~	~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	11.4	B	N	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	898	~~B~~	4	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	867		~~*E~~ *J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

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7/25/91

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ47

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104326002

Level (low/med): LOW Date Received:04/18/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	128	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	325	~~B~~	G	P
7440-47-3	Chromium	3.20	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	15.8	B	N	P
7439-89-6	Iron	3380			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	3.70	~~B~~	~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	9.90	B		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	98.5	~~B~~	UJ	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	782		*E J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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7/25/91

FORM I - IN

9613424.0402

0000024

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B00J07

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104382001

Level (low/med): LOW Date Received:04/24/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	124	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	335	~~B~~	4	P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.60	B	N	P
7439-89-6	Iron	2680			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	20.0		~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	335	~~B~~	4	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	30.6		*E UJ	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

MAB 7/25/91

FORM I - IN

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0000025

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

DB00J45

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104382002

Level (low/med): LOW Date Received:04/24/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	575			P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	368	~~B~~	G	P
7440-47-3	Chromium	18.0		N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.80	B	N	P
7439-89-6	Iron	404			P
7439-92-1	Lead				
7439-95-4	Magnesium	1300	B		P
7439-96-5	Manganese	4.20	~~B~~	~~N~~	P
7439-97-6	Mercury				
7440-02-0	Nickel	8.30	B	N	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	347	~~B~~	G	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	43.8		*E J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

MAB 7/25/91

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ39

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104402001

Level (low/med): LOW Date Received:04/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	87.3	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	242	~~B~~	G	P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.00	U	N	P
7439-89-6	Iron	146			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	78.5	~~B~~	UJ	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	51.2		*E J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

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7/25/91

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV48

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104402002

Level (low/med): LOW Date Received:04/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	83.5	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	290	~~B~~	4	P
7440-47-3	Chromium	6.00	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.80	B	N	P
7439-89-6	Iron	169			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	136	~~B~~	4 J	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	38.8		*E J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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7/25/91

FORM I - IN

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV49

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104402003

Level (low/med): LOW Date Received:04/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	118	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	339	~~B~~	4	P
7440-47-3	Chromium	3.40	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.30	B	N	P
7439-89-6	Iron	197			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	3.00	~~B~~	~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	P
7440-09-7	Potassium	1100	~~B~~	4	P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	1130	~~B~~	4	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	49.1		*E J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

mgb. 7/25/91

FORM I - IN

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV50

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104402004

Level (low/med): LOW Date Received:04/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	109	B		P
7440-36-0	Antimony	29.0	B	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	293	~~B~~	~~N~~	P
7440-47-3	Chromium	3.60	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.30	B	N	P
7439-89-6	Iron	131			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	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	73.5	~~B~~	GJ	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	126		*E J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

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7/25/91

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV51

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104402005

Level (low/med): LOW Date Received:04/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	87.3	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	308	~~B~~	G	P
7440-47-3	Chromium	5.90	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	10.8	B	N	P
7439-89-6	Iron	123			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.20	~~B~~	~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	25.7	B	N	P
7440-09-7	Potassium	1050	~~B~~	U	P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	442	~~B~~	G	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	41.3		*E J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

MAB 7/25/91

FORM I - IN

9613424.0409

WESTON
MANAGERS DESIGNERS/CONSULTANTS
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE, PA 19341-1313
PHONE: (215) 524-7360
TELEX: 83-5348

28 October 1991

Jeanette Duncan
Westinghouse-Hanford
2355 Stevens Dr.
200W/MO-346/T6-08
Richland, WA 99352

Dear Jeanette,

Enclosed are the following data packages:

RFW NO.	PARAMATERS
9102L658	Metals (90 SOW)
9103L913	Metals (90 SOW)
9104L227/268/326/382/402	Metals (90 SOW)
9105L462	Metals (90 SOW)
9105L463	Metals (90 SOW)
9105L552	Metals (90 SOW)
9105L712	Metals (90 SOW)
9106L750	Metals (90 SOW)
9107L081	Wet Chem., Metals, Pest/Pcb, Voa, Bna
9107L290	Wet Chem., Metals, Pest/Pcb, Voa, Bna
9107L314	Wet Chem., Metals, Pest/Pcb, Voa, Bna
9108L349	Wet Chem., Metals, Pest/Pcb, Voa, Bna
9108L390	Wet Chem., Metals, Pest/Pcb, Voa, Bna
9108L461	Wet Chem., Metals, Pest/Pcb,Voa
9108L474	Wet Chem., Metals, Pest/Pcb,Voa
9108L528	Wet Chem., Metals, Voa
9108L553	Wet Chem., Metals, Voa
9108L554	Wet Chem., Metals, Pest/Pcb,Voa

Please give me a call if you have any questions.
Very truly yours,

ROY F. WESTON, INC.

Josie King

Josie King
Project Manager
WESTON Analytics

9613424.0410

WESTON
MANAGERS DESIGNERS/CONSULTANTS
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE, PA 19341-1313
PHONE: (215) 524-7360
TELEX: 83-5348

12 June 1991

Renee Owens
Westinghouse-Hanford
2355 Stevens Dr.
200W/MO-346/T6-08
Richland, WA 99352

Re: Data transmittal

Dear Renee,

Enclosed are the following data packages:

RFW NO.	PARAMATERS
9104L227	Wet Chemistry,Pest/Pcb, Voa,Bna,GC Scan (this should complete this batch).
9104L382	Wet Chemistry,Pest/Pcb, Voa,Bna,GC Scan (this should complete this batch).

The Metals/Cn package for both of these batches were previously mailed to you 10 June 1991 with RFW batch 9104L268. Please give me a call if you have any questions.

Very truly yours,

ROY F. WESTON, INC.

Josie King

Josie King
Project Information Analyst
WESTON Analytics

cc: Peg Beaty

JUN 1991
RECEIVED
DATA RECEIPT