Custody Transfer Record/Lab Work Request

WESTON

WESTON Analytics Use Only: 9103L103

Client: Westinghouse Hanford
Work Order: 6168-02-01-0000
Date Rec'd. 3/28/91 Date Due 5/2/91
RFW Contact: Peg Beatty
Client Contact/Phone:

Refrigerator#		1	6	6	3	4	1	3	3	3
#/Type Container		3/G	2/G	1/G	1/P	4 bot	1/G	1/P	1/P	1/P
Volume		40ml	2L	1L	1L	1L	125	1L	1L	1L
Preservative		—	—	HCl	HNO3	12	H2SO4	—	H2SO4	—
ANALYSES REQUESTED		VOA	P/PCB	BNA	Metal	Add Work	TOC	Inorg (1)	Inorg (2)	Anions
WA Use Only Lab ID	Client ID/Description	Matrix	Date Collected	0629H	0608H	0625H	Tot Sol	Tot Sol	Sol Broken	Sol Broken
001	~~B00F98~~ B00F98	W	3/25/91	✓	✓	✓	✓	✓	✓	✓
002	~~B00F99~~ B00F99									
003	~~B00F97~~			✓						

Revision #1 4/1/91
client ID's
change per client COC

Inorg (1) = pH, Sod, Alk, Cl, SO4
Inorg (2) = Sod, NH3N, NO3N2
Anions = LiCl, LiFl, LiSO4, LiPO4, LiNO3, LiNO2
Redwork - westinghouse work plan

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

Special Instructions: Metals = Al, Sb, Be, Sb, Sn GC/Hal = CLP
OC = 7, 8, 9
Anz = Sulfide TAT = 35 Day

Item/Reason	Relinquished by	Received by	Date	Time	Item/Reason	Relinquished by	Received by	Date	Time
Emery	[illegible]	[illegible]	3/28/91	7am	VOA	M. Jones	[illegible]	4/1	11:30
Truck	[illegible]	[illegible]	3/28/91	5:00	ECarb	[illegible]	[illegible]	4/1/91	4:00
Ext 1	[illegible]	R. Shepard	3/29/91	9:30					
1 ICBR	[illegible]	[illegible]	4/1/91						
001 Cells	[illegible]	[illegible]	4/1/91						
001 ESS	[illegible]	[illegible]	4/1/91						

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: ICNO3, LiNO3, LiCl

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

BEST AVAILABLE COPY

START 3512.0875
0046091
0000002
9103L103-WSS-015

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 0016

BOOF98

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L103-001

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

Lab File ID: AK4110

Level: (low/med) LOW

Date Received: 03/28/91

% Moisture: not dec. _____

Date Analyzed: 04/01/91

Column: (pack/cap) CAP

Dilution Factor: 1.00

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

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

9113512.0877

0000017

CLIENT SAMPLE NO. 0017

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BOOF98

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L103-001

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

Lab File ID: AK4110

Level: (low/med) LOW

Date Received: 03/28/91

% Moisture: not dec. _____

Date Analyzed: 04/01/91

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

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

9213512.0878

0000022

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 0022

BOOFH7

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L103-003

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

Lab File ID: AK4111

Level: (low/med) LOW

Date Received: 03/28/91

% Moisture: not dec. _____

Date Analyzed: 04/01/91

Column: (pack/cap) CAP

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	B
67-64-1	Acetone	8	JB
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	4	J
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

9315512.0879

0000023

CLIENT SAMPLE NO. 0023

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BOOFH7

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L103-003

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

Lab File ID: AK4111

Level: (low/med) LOW

Date Received: 03/28/91

% Moisture: not dec. _____

Date Analyzed: 04/01/91

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

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

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 0063

VBLK

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 91LVK060-MB1

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: AK4105

Level: (low/med) LOW Date Received: 04/01/91

% Moisture: not dec. _____ Date Analyzed: 04/01/91

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

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

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

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 0064

VBLK

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 91LVK060-MB1

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

Lab File ID: AK4105

Level: (low/med) LOW

Date Received: 04/01/91

% Moisture: not dec. _____

Date Analyzed: 04/01/91

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

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

9713512.0882

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000022

CLIENT SAMPLE NO.

BOOF98

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L103-001

Sample wt/vol: 990 (g/mL) ML

Lab File ID: V042514

Level: (low/med) LOW

Date Received: 03/28/91

% Moisture: not dec. _____ dec.

Date Extracted: 04/01/91

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 04/25/91

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

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
108-95-2	Phenol	8	JB
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	16	B
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	4	JB
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-propylamine	5	JB
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	5	JB
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	16	B
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

BOOF98

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 9103L103-001

Sample wt/vol: 990 (g/mL) ML Lab File ID: V042514

Level: (low/med) LOW Date Received: 03/28/91

% Moisture: not dec. _____ dec. Date Extracted: 04/01/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/25/91

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

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	6	JB
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	10	JS
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	7	JB
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	15	JS
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	5	JB
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-Octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

9713512.0884
1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

0000024

CLIENT SAMPLE NO.

BOOF98

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L103-001

Sample wt/vol: 990 (g/mL) ML

Lab File ID: V042514

Level: (low/med) LOW

Date Received: 03/28/91

% Moisture: not dec. _____ dec.

Date Extracted: 04/01/91

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 04/25/91

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

Dilution Factor: 1.00

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.08	10	J
2.	TRIETHYLENE GLYCOL	13.32	4	J
3.	HYDROCARBON	24.75	10	JB

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B00F98RE

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L103-001

Sample wt/vol: 990 (g/mL) ML

Lab File ID: V050305

Level: (low/med) LOW

Date Received: 03/28/91

% Moisture: not dec. _____ dec.

Date Extracted: 04/29/91

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 05/03/91

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

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

9713512.0886

SEMIVOLATILE ORGANICS ANALYSIS SHEET 0000036

CLIENT SAMPLE NO.

B00F98RE

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 9103L103-001

Sample wt/vol: 990 (g/mL) ML Lab File ID: V050305

Level: (low/med) LOW Date Received: 03/28/91

% Moisture: not dec. _____ dec. Date Extracted: 04/29/91

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

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

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	3	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-Octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

9713512.0887

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NO 0 0 0 0 3 7

CLIENT SAMPLE NO.

B00F98RE

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L103-001

Sample wt/vol: 990 (g/mL) ML

Lab File ID: V050305

Level: (low/med) LOW

Date Received: 03/28/91

% Moisture: not dec. _____ dec.

Date Extracted: 04/29/91

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 05/03/91

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

Dilution Factor: 1.00

Number TICs found: 0

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

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

9213512.0888

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000264

CLIENT SAMPLE NO.

SBLK

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 91LE0428-MB1

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: V040412

Level: (low/med) LOW

Date Received: 04/01/91

% Moisture: not dec. _____ dec.

Date Extracted: 04/01/91

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 04/04/91

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

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
108-95-2	Phenol	4	JS
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	6	JS
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	3	JS
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-propylamine	4	JS
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	4	JS
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	12	S
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

9713512.0889

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000265

CLIENT SAMPLE NO.

SBLK

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 91LE0428-MB1

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: V040412

Level: (low/med) LOW

Date Received: 04/01/91

% Moisture: not dec. _____ dec.

Date Extracted: 04/01/91

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 04/04/91

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

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	4	JS
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	5	JS
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	2	J
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	6	JS
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	2	J
117-84-0	Di-n-Octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

9713512.0890

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS 000266

CLIENT SAMPLE NO.

SBLK

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 91LE0428-MB1

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: V040412

Level: (low/med) LOW

Date Received: 04/01/91

% Moisture: not dec. _____ dec.

Date Extracted: 04/01/91

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 04/04/91

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

Dilution Factor: 1.00

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	HYDROCARBON	25.12	20	J

FORM 1 SV-TIC 12/88 Rev.

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000279

CLIENT SAMPLE NO.

SBLKMS

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 91LE0428-MB1 BS

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: V040413

Level: (low/med) LOW

Date Received: 04/01/91

% Moisture: not dec. _____ dec.

Date Extracted: 04/01/91

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 04/04/91

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

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
108-95-2	Phenol		S
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol		S
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene		S
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-propylamine		S
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene		S
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol		S
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

S: SPIKE COMPOUND

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SBLKMS

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 91LE0428-MB1 BS

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: V040413

Level: (low/med) LOW

Date Received: 04/01/91

% Moisture: not dec. _____ dec.

Date Extracted: 04/01/91

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 04/04/91

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

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene		S
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol		S
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene		S
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	2	JB
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol		S
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene		S
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-Octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

S: SPIKE COMPOUND

9113512.0893

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000287

CLIENT SAMPLE NO.

SBLKMSD

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

Client: WESTINGHOUSE HANFORD

»Øx: WATER

Lab Sample ID: 91LE0428-MB1 BSD

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: V040414

Level: (low/med) LOW

Date Received: 04/01/91

% Moisture: not dec. _____ dec.

Date Extracted: 04/01/91

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 04/04/91

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

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
108-95-2	Phenol		S
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol		S
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene		S
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-propylamine		S
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene		S
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol		S
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

S: SPIKE COMPOUND

FORM 1 SV-1

12/88 Rev.

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

SBLKMSD

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 91LE0428-MB1 BSD

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: V040414

Level: (low/med) LOW

Date Received: 04/01/91

% Moisture: not dec. _____ dec.

Date Extracted: 04/01/91

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 04/04/91

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

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene		S
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol		S
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene		S
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	1	JB
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol		S
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene		S
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-Octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

S: SPIKE COMPOUND

9213612.0895

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000295

CLIENT SAMPLE NO.

SBLK

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 91LE0557-MB1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: M050108

Level: (low/med) LOW Date Received: 04/29/91

% Moisture: not dec. _____ dec. Date Extracted: 04/29/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/01/91

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

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

CAS NO.	COMPOUND		
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

9113512.0896

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000296

CLIENT SAMPLE NO.

SBLK

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 91LE0557-MB1

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: M050108

Level: (low/med) LOW

Date Received: 04/29/91

% Moisture: not dec. _____ dec.

Date Extracted: 04/29/91

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 05/01/91

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

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-Octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

9713512.0897

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS 000297

CLIENT SAMPLE NO.

SBLK

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 91LE0557-MB1

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: M050108

Level: (low/med) LOW

Date Received: 04/29/91

% Moisture: not dec. _____ dec.

Date Extracted: 04/29/91

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 05/01/91

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

Dilution Factor: 1.00

Number TICs found: 0

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

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

9713512.0898 0000012

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

BOOF98

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 9103L103-001

Sample wt/vol: 990 (g/mL) ML Lab File ID: 05079113.16

Level: (low/med) LOW Date Received: 03/28/91

% Moisture: not dec. _____ dec. Date Extracted: 03/29/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 05/08/91

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

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

CAS NO.	COMPOUND		
319-84-6	Alpha-BHC	0.050	U
319-85-7	Beta-BHC	0.050	U
319-86-8	Delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

6/27/91

9716612.0899 0000116

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

PBLK

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 91LE0423-MB1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 05079113.28

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

% Moisture: not dec. _____ dec. Date Extracted: 03/29/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 05/08/91

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

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

CAS NO.	COMPOUND		
319-84-6	Alpha-BHC	0.050	U
319-85-7	Beta-BHC	0.050	U
319-86-8	Delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

6/28/91

9713512.0900

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 04/24/91

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

WESTON BATCH #: 9103L103

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	BOOF98	Alkalinity	108	MG/L	2.0
		Chloride by IC	5.9	mg/L	0.25
		Fluoride by IC	0.54	mg/L	0.50
		Nitrite by IC	0.25 u	mg/L	0.25
		Nitrate by IC	65.5	mg/L	2.5
		Cyanide, Total	10.0 u	UG/L	10.0
		Phosphate by IC	0.25 u	mg/L	0.25
		Sulfate by IC	33.8	mg/L	2.5
		Hardness	141	MG/L	2.0
		Nitrate Nitrite	29.4	MG/L	10.0
		Ammonia, as N	0.10 u	MG/L	0.10
		Total Organic Carbon	0.70	MG/L	0.50
		pH	7.7	PH UNITS	0.010
		Sulfate	35.5	MG/L	5.0
		Specific Conductance	361	UMHOS/CM	1.0
		Total Dissolved Solids	294	MG/L	5.0

9713512.0901

ROY F. WESTON INC.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 04/24/91

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

WESTON BATCH #: 9103L103

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
BLANK10	91LAL009-MB1	Alkalinity	0.50 u	MG/L	0.50
BLANK20	91LAL009-MB2	Alkalinity	0.50 u	MG/L	0.50
BLANK30	91LAL009-MB3	Alkalinity	2.0 u	MG/L	2.0
BLANK40	91LAL009-MB4	Alkalinity	2.0 u	MG/L	2.0
BLANK50	91LAL009-MB5	Alkalinity	2.0 u	MG/L	2.0
BLANK60	91LAL009-MB6	Alkalinity	2.0 u	MG/L	2.0
BLANK1	91LIC24-MB1	Chloride by IC	0.25 u	mg/L	0.25
		Fluoride by IC	0.50 u	mg/L	0.50
		Nitrite by IC	0.25 u	mg/L	0.25
		Nitrate by IC	0.25 u	mg/L	0.25
		Phosphate by IC	0.25 u	mg/L	0.25
		Sulfate by IC	0.25 u	mg/L	0.25
BLANK1	91LC123-MB1	Cyanide, Total	10.0 u	UG/L	10.0
BLANK10	91LHD006-MB1	Hardness	1.0 u	MG/L	1.0
BLANK20	91LHD006-MB2	Hardness	1.0 u	MG/L	1.0

9713512.0902

ROY F. WESTON INC.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 04/24/91

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

WESTON BATCH #: 9103L103

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
BLANK10	91LNO129-MB1	Nitrate Nitrite	0.10 u	MG/L	0.10
BLANK10	91LAM042-MB1	Ammonia, as N	0.10 u	MG/L	0.10
BLANK20	91LAM042-MB2	Ammonia, as N	0.10 u	MG/L	0.10
BLANK30	91LAM042-MB3	Ammonia, as N	0.10 u	MG/L	0.10
BLANK10	91LTC065-MB1	Total Organic Carbon	0.50 u	MG/L	0.50
BLANK20	91LTC065-MB2	Total Organic Carbon	0.50 u	MG/L	0.50
BLANK30	91LTC065-MB3	Total Organic Carbon	0.50 u	MG/L	0.50
BLANK10	91LS4025-MB1	Sulfate	5.0 u	MG/L	5.0
BLANK20	91LS4025-MB2	Sulfate	5.0 u	MG/L	5.0
BLANK30	91LS4025-MB3	Sulfate	5.0 u	MG/L	5.0

9713512.0903

ROY F. WESTON INC.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 04/24/91

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

WESTON BATCH #: 9103L103

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
BLANK40	91LS4025-MB4	Sulfate	5.0	u	MG/L	5.0
BLANK10	91LSP029-MB1	Specific Conductance	1.0	u	UMHOS/CM	1.0
BLANK20	91LSP029-MB2	Specific Conductance	1.0	u	UMHOS/CM	1.0
BLANK10	91LSS032-MB1	Total Dissolved Solids	5.0	u	MG/L	5.0

9713512.0904

ROY F. WESTON INC.

INORGANICS ACCURACY REPORT 04/24/91

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

WESTON BATCH #: 9103L103

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV
-001	BOOF98	Hardness	344	141	200	102
BLANK10	91LAL009-MB1	Alkalinity	100	0.50u	100	100
BLANK20	91LAL009-MB2	Alkalinity	100	0.50u	100	100
BLANK30	91LAL009-MB3	Alkalinity	98.0	2.0 u	100	98.0
BLANK40	91LAL009-MB4	Alkalinity	100	2.0 u	100	100
BLANK50	91LAL009-MB5	Alkalinity	98.0	2.0 u	100	98.0
BLANK60	91LAL009-MB6	Alkalinity	100	2.0 u	100	100
BLANK1	91LIC24-MB1	Chloride by IC	5.2	0.25u	5.0	105
		Fluoride by IC	10.3	0.50u	10.0	103
		Nitrite by IC	5.2	0.25u	5.0	105
		Nitrate by IC	4.7	0.25u	5.0	93.4
		Phosphate by IC	5.1	0.25u	5.0	102
		Sulfate by IC	5.2	0.25u	5.0	104
BLANK10	91LHD006-MB1	Hardness	100	1.0 u	100	100
		Hardness MSD	110	1.0 u	109	101
BLANK20	91LHD006-MB2	Hardness	100	1.0 u	100	100

9713512.0905

ROY F. WESTON INC.

INORGANICS ACCURACY REPORT 04/24/91

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

WESTON BATCH #: 9103L103

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV
BLANK10	91LNO129-MB1	Nitrate Nitrite	0.44	0.10u	0.40	110
		Nitrate Nitrite MSD	0.42	0.10u	0.40	105
BLANK10	91LAM042-MB1	Ammonia, as N	10.7	0.10u	10.0	107
		Ammonia, as N MSD	0.20	0.10u	0.20	99.0
BLANK20	91LAM042-MB2	Ammonia, as N	1.1	0.10u	1.0	110
BLANK30	91LAM042-MB3	Ammonia, as N	0.20	0.10u	0.20	101
BLANK10	91LTC065-MB1	Total Organic Carbon	4.8	0.50u	5.0	96.9
		Total Organic Carbon	4.8	0.50u	5.0	96.9
BLANK20	91LTC065-MB2	Total Organic Carbon	9.6	0.50u	10.0	95.7
BLANK30	91LTC065-MB3	Total Organic Carbon	2.5	0.50u	2.5	101
BLANK10	91LS4025-MB1	Sulfate	20.8	5.0 u	20.0	104
		Sulfate	21.1	5.0 u	20.0	106
BLANK20	91LS4025-MB2	Sulfate	21.1	5.0 u	20.0	106
BLANK30	91LS4025-MB3	Sulfate	31.1	5.0 u	30.0	104

9713512.0906

ROY F. WESTON INC.

INORGANICS ACCURACY REPORT 04/24/91

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

WESTON BATCH #: 9103L103

SAMPLE	SITE ID	ANALYTE		SPIKED SAMPLE	INITIAL RESULT		SPIKED AMOUNT	%RECOV
BLANK40	91LS4025-MB4	Sulfate		42.4	5.0	u	40.0	106
BLANK10	91LSP029-MB1	Specific Conductance		142	1.0	u	147	96.6
		Specific Conductance	M	141	1.0	u	147	95.9
BLANK20	91LSP029-MB2	Specific Conductance		698	1.0	u	718	97.2

9713512.0907

ROY F. WESTON INC.

INORGANICS DUPLICATE SPIKE REPORT 04/24/91

CLIENT: WESTINGHOUSE HANFORD

WESTON BATCH #: 9103L103

WORK ORDER: 6168-02-01-0000

SAMPLE	SITE ID	ANALYTE	SPIKE#1 %RECOV	SPIKE#2 %RECOV	%DIFF
LCS2	91LC123-LC2	Cyanide, Total LCS	97.5	97.8	0.31
BLANK10	91LHD006-MB1	Hardness	100	101	0.90
BLANK10	91LNO129-MB1	Nitrate Nitrite	110	105	5.1
BLANK10	91LAM042-MB1	Ammonia, as N	107	99.0	7.8
BLANK10	91LTC065-MB1	Total Organic Carbon	96.9	96.9	0.00
BLANK10	91LS4025-MB1	Sulfate	104	106	1.6
BLANK10	91LSP029-MB1	Specific Conductance	96.6	95.9	0.70

9713512.0908

ROY F. WESTON INC.

INORGANICS PRECISION REPORT 04/24/91

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

WESTON BATCH #: 9103L103

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	% DIFF
-001REP	BOOF98	Hardness	141	142	0.28

ROY F. WESTON INC.

INORGANICS LABORATORY CONTROL STANDARDS REPORT 04/24/91

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	91LC123-LC1	Cyanide, Total LCS	97.5	100	UG/L	97.5
LCS2	91LC123-LC2	Cyanide, Total LCS	97.8	100	UG/L	97.8

9713592.0910

OSM ORGANIC DATA ASSESSMENT

DATE 8.15.91 (LM)

REVIEWED BY LK THOMPSON

LABORATORY WESTON

CASE #

SDG # RFW #9103L103

SAMPLES/MATRIX B00F98

B00FH7

both water

DATA ASSESSMENT SUMMARY

	VOA	ABN	PEST
1. Holding Times (Form I)	0	0	0
2. Surrogate Recovery (II)	0	0	0
3. Matrix Spike/ MSD (III)	0	0	0
4. Blanks (IV)	X	X	0
5. GC/MS Tune (V)	0	0	
6. Calibration (VI-VII; VIII pest)	0	0	X
7. Internal Standards (VIII)	0	X	
8. Instr. Perform. (IX pest)			0
9. Other ( )	0	0	0

0 = 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: VOA and BNA had some blank problems. Internal STD in BNA affected data quality, PEST calibration deviated in continuing responses.

NOTES : BNA had no MS/MSD study.

Refer to the corresponding attachments for explanation of any problems.

ok to transmit

10/9/91

9713512.0911

ORGANIC QC - Holding Times

Name L K THOMPSON (LKT) Date 8.15.91

COMMENTS: VOA - ALL HT REQUIREMENTS MET.

BNA - ALL HT REQUIREMENT MET.

SAMPLE B00F98 WAS RE-EXTRACTED AND RE-ANALYSED OUTSIDE HOLDING TIME BUT THIS REANALYSIS DID NOT CORRECT INTERNAL STD AREA QC PROBLEM IN THE ORIGINAL B00F98. THEREFORE DISREGARD B00F98RE.

~~ACTION:~~ PEST: ALL HT REQUIREMENTS MET

ACTION: NONE

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

9713512.0912

ORGANIC QC - Surrogate Recovery

Name LK THOMPSON (LK) Date 8.15.91

COMMENTS: VOA - ALL SURROGATE RECOVERIES WITHIN CONTROL LIMITS

BNA - ALL SURROGATE RECOVERIES WITHIN CONTROL LIMITS

PEST - DBC SURROGATE RECOVERY WERE WITHIN QC CONTROL LIMITS

ACTION:

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

9715512.0913

ORGANIC QC - MS/MSD

Name LK THOMPSON LKT Date 8-15-91

COMMENTS: VOA: MS/MSD OF SAMPLE B0DF91 FROM RFW 910302-001 SPIKE RECOVERIES WERE ALL WITHIN CONTROL LIMITS. THE RPDs WERE FOUND TO BE WITHIN CONTROL LIMITS.

BNA: No MS/MSD STUDIED. A BLANK SPIKED WAS SUPPLIED IN WHICH ALL SPIKE RECOVERIES WERE FOUND TO BE WITHIN QC LIMITS AND THE RPD OF 4-NITROPHENOL WAS OUTSIDE QC LIMITS. (NOT SIGNIFIC

~~ACTION:~~ PEST NO MS/MSD ON SAMPLE IN THIS CASE HOWEVER BLANK WAS SPIKED AND ALL RECOVERIES WERE WITHIN QC LIMITS

sample #	constituent	value/qual	sample #	constituent	value/qual
ACTION: NONE					

9715512.0914

ORGANIC QC - Blanks

Name LK THOMPSON LKT Date 8.15.91

COMMENTS: VOA METHOD BLANK SUMMARY OK : BLANK CONTAMINATED WITH METHYLENE CHLORIDE @ 7 ppb, ACETONE @ 20 ppb WITH NO TICS

BNA METHOD BLANK SUMMARY OK. SBLK (V040412) WAS CONTAMINATED WITH SPIKEING ANALYTES. AND ONE TIC.

PEST METHOD BLANK SUMMARY OK. PBLK HAD NO PEST TCA ~~DETECTED~~.

ACTION: QUALIFY DATA VIA OSM GUIDELINES.

VOA

sample #	constituent	value/qual
B00F98	METHYLENE CHLORIDE	5 U
B00FH7	METHYLENE CHLORINE	5 U
B00FU7	ACETONE	10 U

BNA

sample #	constituent	value/qual
B00F98	Phenol	8 U
	2 Chlorophenol	16 U
	1,4 Dichlorobenzene	10 U
	N-NITROSO-DI-N-PROPYLAMINE	10 U
	1,2,4 TRICHLOROBENZENE	10 U
	4-Chloro-3-METHYL PHENOL	16 U
	ACE NAPHTHENE	10 U
	4-NITRO PHENOL	10 U
	2,4-DINITROTOLUENE	10 U
	PENTACHLORO PHENOL	50 U
	PYRENE	10 U

TIC @ 24.75 min REMOVED DUE TO "BLANK RULE"

sample #	constituent	value/qual

9713512.0915

ORGANIC QC - GC/MS Tune

Name LK THOMPSON LKT Date 8.15.91

COMMENTS: VOA - ALL TUNE PARAMETERS FOR BFB WITHIN CALIBRATION CONTROL LIMITS

BNA - ALL m/z TUNE PARAMETERS FOR DFTPP WITHIN QC CONTROL LIMITS

ACTION: none

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

ORGANIC QC - Calibrations

Name LK THOMPSON LKT Date 8.15.91

COMMENTS: VOA: ALL INITIAL & CONTINUING CALIBRATION DATA FOR CCC AND SPCC CMDS ARE WITHIN QC LIMITS.

BNA: ALL INITIAL & CONTINUING CALIBRATION DATA FOR CCC & SPCC CMDS WERE WITHIN QC LIMITS

PEST - LINEARITY CHECK - OK FOR 1° COLUMN

- 72 HOUR SEQUENCE CORRECT EXCEPT IND B MISSING AT END

ACTION: - CONTINUING CALIBRATION FACTORS %D > 15 FOR 1° COLUMN HEPTACHLOR, ALDRIN, HEPTACHLOR EPOXIDE, ENDOSULFAN I, DIELDRIN ENDOSULFAN II, DDT and METHOXYCHLOR & DELTA BHC

ACTION: QUALIFY DATA VIA OSM GUIDELINES.

sample #	constituent	value/qual	sample #	constituent	value/qual
B00F98	ALL PESTICIDES	VALUE/UJ			

9715512.0917

ORGANIC QC - Internal Standards

Name LK THOMPSON Date 8-15-91

COMMENTS: VOA: ALL IS AREAS WITHIN QC GUIDELINES
ALL RT AREAS OF IS'S WITHIN QC GUIDELINES.
BNA ALL IS RT WERE WITHIN QC WINDOW LIMITS
ONLY ONE IS AREA OF BOOF98 WAS OUTSIDE
QC LIMITS — BOOF98 RE-EXTRACTED AND FOUND TO HAVE
2 IS AREAS OUTSIDE LIMITS.

ACTION: QUALIFY DATA ACCORDING TO OSM GUIDELINES

sample #	constituent	value/qual
BNA		
BOOF98	DI-n-OCTYL PHTHALATE	10 UJ
	BENZO(B) FLUORANTHENE	10 UJ
	BENZO(K)FLUORANTHENE	10 UJ
	BENZO(a) PYRENE	10 UJ
	INDENO (1,2,3-cd) PYRENE	10 UJ
	DI BENZ (a,h) ANTHRACENE	10 UJ
	BENZO (g,h,i) Perylene	10 UJ
BOOF98	all Semi VOA	UJ

sample #	constituent	value/qual

JJ 10/9/91

9715912.0918

ORGANIC QC - Instrument Performance (pest)

Name LK THOMPSON LKT Date _____

COMMENTS: - DDT/ENDRIN % BREAKDOWN CHECK OK
- DBC % RT WITHIN 1.5% GUIDELINES
FOR MEGABORE COLUMN
- DDT RT > 12 min
RT WINDOWS CRITERIA MET

ACTION: none

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

9713512.0919

ORGANIC QC - Other

Name LK THOMPSON LKT Date 8-15-91

COMMENTS: VOA - none

BNA - none

PEST - none

ACTION: none

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

1A

U000018

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

BOOF98

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L103-001

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

Lab File ID: AK4110

Level: (low/med) LOW

Date Received: 03/28/91

% Moisture: not dec. _____

Date Analyzed: 04/01/91

Column: (pack/cap) CAP

Dilution Factor: 1.00

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

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

LCT
4.15.91

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B00F98

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L103-001

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

Lab File ID: AK4110

Level: (low/med) LOW

Date Received: 03/28/91

% Moisture: not dec. _____

Date Analyzed: 04/01/91

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

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

1A

U000022

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

BOOFH7

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L103-003

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

Lab File ID: AK4111

Level: (low/med) LOW

Date Received: 03/28/91

% Moisture: not dec. _____

Date Analyzed: 04/01/91

Column: (pack/cap) CAP

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	~~B~~ U
67-64-1	Acetone	~~8~~ 10	~~JB~~ U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	4	J
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

LKT 8-15-91

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B00FH7

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L103-003

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

Lab File ID: AK4111

Level: (low/med) LOW

Date Received: 03/28/91

% Moisture: not dec. _____

Date Analyzed: 04/01/91

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

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

07/15/12 0924

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000022

CLIENT SAMPLE NO.

BOOF98

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 9103L103-001

Sample wt/vol: 990 (g/mL) ML Lab File ID: V042514

Level: (low/med) LOW Date Received: 03/28/91

% Moisture: not dec. _____ dec. Date Extracted: 04/01/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/25/91

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

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

CAS NO.	COMPOUND		
108-95-2	Phenol	8 10	JB UJ
111-44-4	bis(2-Chloroethyl)ether	10	UJ
95-57-8	2-Chlorophenol	16	BUJ
541-73-1	1,3-Dichlorobenzene	10	UJ
106-46-7	1,4-Dichlorobenzene	4 10	JB UJ
100-51-6	Benzyl alcohol	10	UJ
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	UJ
621-64-7	N-Nitroso-Di-n-propylamine	5 10	JB UJ
67-72-1	Hexachloroethane	10	UJ
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	UJ
120-82-1	1,2,4-Trichlorobenzene	5 10	JB UJ
91-20-3	Naphthalene	10	UJ
106-47-8	4-Chloroaniline	10	UJ
87-68-3	Hexachlorobutadiene	10	UJ
59-50-7	4-Chloro-3-methylphenol	16	BUJ
91-57-6	2-Methylnaphthalene	10	UJ
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	UJ

10/9/91

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 0000023

CLIENT SAMPLE NO.

BOOF98

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 9103L103-001

Sample wt/vol: 990 (g/mL) ML Lab File ID: V042514

Level: (low/med) LOW Date Received: 03/28/91

% Moisture: not dec. _____ dec. Date Extracted: 04/01/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/25/91

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

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	50	UJ
83-32-9	Acenaphthene	~~5~~ 10	~~JB~~ UJ
51-28-5	2,4-Dinitrophenol	50	UJ
100-02-7	4-Nitrophenol	10	~~JB~~ UJ
132-64-9	Dibenzofuran	10	UJ
121-14-2	2,4-Dinitrotoluene	~~7~~ 10	~~JB~~ UJ
84-66-2	Diethylphthalate	10	UJ
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	UJ
87-86-5	Pentachlorophenol	~~15~~ 50	~~JB~~ UJ
85-01-8	Phenanthrene	10	UJ
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	UJ
129-00-0	Pyrene	~~5~~ 10	~~JB~~ UJ
85-68-7	Butylbenzylphthalate	10	UJ
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-Octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	UJ

(1) - Cannot be separated from Diphenylamine

10/9/91

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000024

CLIENT SAMPLE NO.

BOOF98

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L103-001

Sample wt/vol: 990 (g/mL) ML

Lab File ID: V042514

Level: (low/med) LOW

Date Received: 03/28/91

% Moisture: not dec. _____ dec.

Date Extracted: 04/01/91

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 04/25/91

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

Dilution Factor: 1.00

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.08	10	J
2.	TRIETHYLENE GLYCOL	13.32	4	J
3.	HYDROCARBON	~~24.75~~	~~10~~	~~JB~~

JJ 10/91

FORM 1 SV-TIC 12/88 Rev.

0000012

1D

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

BOOF98

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 9103L103-001

Sample wt/vol: 990 (g/mL) ML Lab File ID: 05079113.16

Level: (low/med) LOW Date Received: 03/28/91

% Moisture: not dec. _____ dec. Date Extracted: 03/29/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 05/08/91

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	
319-84-6	Alpha-BHC	0.050	U UJ
319-85-7	Beta-BHC	0.050	U UJ
319-86-8	Delta-BHC	0.050	U UJ
58-89-9	gamma-BHC (Lindane)	0.050	U UJ
76-44-8	Heptachlor	0.050	U UJ
309-00-2	Aldrin	0.050	U UJ
1024-57-3	Heptachlor epoxide	0.050	U UJ
959-98-8	Endosulfan I	0.050	U UJ
60-57-1	Dieldrin	0.10	U UJ
72-55-9	4,4'-DDE	0.10	U UJ
72-20-8	Endrin	0.10	U UJ
33213-65-9	Endosulfan II	0.10	U UJ
72-54-8	4,4'-DDD	0.10	U UJ
1031-07-8	Endosulfan sulfate	0.10	U UJ
50-29-3	4,4'-DDT	0.10	U UJ
72-43-5	Methoxychlor	0.50	U UJ
53494-70-5	Endrin ketone	0.10	U UJ
5103-71-9	alpha-Chlordane	0.50	U UJ
5103-74-2	gamma-Chlordane	0.50	U UJ
8001-35-2	Toxaphene	1.0	U UJ
12674-11-2	Aroclor-1016	0.50	U UJ
11104-28-2	Aroclor-1221	0.50	U UJ
11141-16-5	Aroclor-1232	0.50	U UJ
53469-21-9	Aroclor-1242	0.50	U UJ
12672-29-6	Aroclor-1248	0.50	U UJ
11097-69-1	Aroclor-1254	1.0	U UJ
11096-82-5	Aroclor-1260	1.0	U UJ

6/28/91

8.15.91

Westinghouse Hanford Company 9213512.0928

(p 1 of 3)

OSM RCRA LEVEL C DATA ASSESSMENT

DATE 8.28.91 SAMPLES/MATRIX B00F98

REVIEWED BY LK THOMPSON (LKT)

LABORATORY WESTON

CASE #

SDG # RFW # 9103L103

— WATER — MATRIX

DATA ASSESSMENT SUMMARY

QUALITY CONTROL CHECK	ANALYSIS	Anions IC*	NO_2/NO_3	Ammonia
1. Holding Time		X	O	O
2. Blank Analysis		O	O	O
3. Matrix Spike		O	O	O
4. Duplicates		NE	O	O
5.				
6.				
7.				
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
NE NOT EVALUATED

OVERALL ASSESSSMENT: no major problems - all results acceptable w/qualifiers

NOTES: DISREGARD ALL CN RESULTS INCLUDED IN THIS DA PACKETTE BECAUSE CN WILL BE REVIEWED IN CLP FORMAT

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

* ANION IC INCLUDES: Cl^-, NO_2^-, NO_3^-, PO_4^{3-}, F^-, SO_4^{2-}

ok to transmit

JJ 11/9/91

Westinghouse Hanford Company 9713512.0929

OSM RCRA LEVEL C DATA ASSESSMENT (p 2 of 3)

DATE 8-28-91 SAMPLES/MATRIX See Cover

REVIEWED BY LK Thompson (LKT)

LABORATORY WESTON

CASE #

SDG # RFW # 9103L103

DATA ASSESSMENT SUMMARY

QUALITY CONTROL CHECK	ANALYSIS	TOC	SULFATE	ALKALINITY
1.	Holding Time	O	O	O
2.	Blank Analysis	O	O	O
3.	Matrix Spike	O	O	O
4.	Duplicates	NE	NE	NE
5.				
6.				
7.				
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
NE: Not Evaluated

OVERALL ASSESSSMENT: See Cover

NOTES: See Cover

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

Westinghouse Hanford Company 9213512.0950

OSM RCRA LEVEL C DATA ASSESSMENT

DATE 8-28-91

REVIEWED BY LK THOMPSON (LKT)

LABORATORY WESTON

CASE #

SDG # RFW# 9103L103

SAMPLES/MATRIX See Cover

DATA ASSESSMENT SUMMARY

QUALITY CONTROL CHECK	ANALYSIS	HARDNESS	CONDUCTANCE	TDS
1.	HOLDING TIME	O	O	O
2.	BLANK ANALYSIS	O	O	O
3.	MATRIX SPIKE	O	O	N/A
4.	DUPLICATES	O	O	NE
5.				
6.				
7.				
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
NE - NOT EVALUATED

OVERALL ASSESSSMENT: See Cover

NOTES: See Cover

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

9713512.0931

RCRA LEVEL C QC

Name LK THOMPSON LKT Date 8.28.91

QC Check: HOLDING TIME

COMMENTS: - ANIONS: NO_2^-, NO_3^-, PO_4^{3-} EXCEEDED THE 48HR HT
- TOC, AMMONIA, SULFATE, NO_2/NO_3, CONDUCTANCE WERE ALL PERFORMED WITHIN 28 DAY HT.
- ALKALINITY - ANALYZED WITHIN 14 DAY HT

ACTION: QUALIFY DATA VIA USEPA GUIDELINES.

sample #	constituent	value/qual	sample #	constituent	value/qual
B00F98	NITRATE	65.5 J			
↓	NITRITE	0.25 UJ			
	PHOSPHATE	0.25 UJ			

9713512.0932

RCRA LEVEL C QC

Name LK THOMPSON LKT Date 8.28.91

QC Check: HOLDING TIME (CONT)

COMMENTS: - TDS, HARDNESS HAVE NO HOLDING TIME SPECIFICATIONS — BOTH ANALYZED WITHIN 14 DAYS

ACTION: NONE

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

9713512.0953

RCRA LEVEL C QC

Name LK THOMPSON (LKT) Date 8.28.91

QC Check: BLANK ANALYSIS

COMMENTS: IC ANIONS BLANK — OK (91LIC24-MB1)

NO_2 / NO_3 BLANK (91LNO172 MB1) - OK

ALKLINITY BLANKS (91LAL009-MB1 to MB6) - OK

AMMONIA BLANKS (91LAM042-MB1 to MB3) - OK

ACTION: none

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

9713512.0934

RCRA LEVEL C QC

Name LK THOMPSON (LKT) Date 8-28-91

QC Check: BLANK ANALYSIS (CONT)

COMMENTS: TOC BLANKS (91LTC085-MB1 to MB3) OK

SULFATE BLANKS (91LS4025MB1 to MB3) OK

HARDNESS BLANKS (91LHD006-MB1 + MB2) OK

CONDUCTANCE BLANK (91LSP029-MB1 + MB2) OK

ACTION: none

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

9713512.0935

RCRA LEVEL C QC

Name LK THOMPSON Date 8.28.91

QC Check: BLANK ANALYSIS (CONT)

COMMENTS: TDS BLANK (91LS032-MB1) OK

ACTION: none

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

9713512.0936

RCRA LEVEL C QC

Name LK THOMPSON LKT Date 8.28.91

QC Check: MATRIX SPIKE

COMMENTS: - HARDNESS SPIKE WITHIN ACCEPTABLE GUIDELINE. - ALKALINITY, IC ANIONS, HARDNESS, NO_2/NO_3, NH_4OH, TOC, SO_4 and CONDUCTANCE - ALL BLANK SPIKES RECOVERIES WITHIN ACCEPTABLE GUIDELINES - TDS MS NOT DONE

ACTION: none

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

9713512.0937

~~RCRA~~ LEVEL C QC

LK

Name LK THOMPSON Date 8-28-91

QC Check: DUPLICATES

COMMENTS: - HARDNESS DUPLICATE OF B00F98 WITHIN QC % DIFF lim
- HARDNESS, NO_2/NO_3, AMMONIA and CONDUCTANCE DUPLICA
ALL OK.
- IC ANIONS, TOC, SO_4, ALKALINITY, TDS DUPLICATE RESULTS NOT DONE
OR REPORTED.

~~ACTION:~~

ACTION: NONE

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

9713512.0938

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 04/24/91

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

WESTON BATCH #: 9103L103

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	BOOF98	Alkalinity	108	MG/L	2.0
		Chloride by IC	5.9	mg/L	0.25
		Fluoride by IC	0.54	mg/L	0.50
		Nitrite by IC	0.25 uJ	mg/L	0.25
		Nitrate by IC	65.5 J	mg/L	2.5
		~~Cyanide, Total~~	10.0 u	UG/L	10.0
		Phosphate by IC	0.25 uJ	mg/L	0.25
		Sulfate by IC	33.8	mg/L	2.5
		Hardness	141	MG/L	2.0
		Nitrate Nitrite	29.4	MG/L	10.0
		Ammonia, as N	0.10 u	MG/L	0.10
		Total Organic Carbon	0.70	MG/L	0.50
		pH	7.7	PH UNITS	0.01(
		Sulfate	35.5	MG/L	5.0
		Specific Conductance	361	UMHOS/CM	1.0
		Total Dissolved Solids	294	MG/L	5.0

8.28.91

9713512.0939

Westinghouse
Hanford Company

OSM RCRA LEVEL C DATA ASSESSMENT

DATE 11/9/91

REVIEWED BY JA Lerch

LABORATORY Weston

CASE # —

~~SDG #~~ RFW # 9103L102 (also contains 9103L103, 104, 117, 9104L144, 186)

SAMPLES/MATRIX

B00F91	B00FH3	B00FB7
B00F92	B00FB1	B00FH4
B00F98	B00FB2	B00F88
B00F99	B00FC8	B00F89
B00F53	B00FC9	B00FB4
all water		B00FB5

DATA ASSESSMENT SUMMARY

QUALITY CONTROL CHECK	ANALYSIS	ICP (Sr, Sn, Bi)		
1. Holding time		O		
2. Blanks		O		
3. Spike Recovery		X		
4. Duplicates		O		
5. LCS		O		
6.				
7.				
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: all results acceptable w/qualifiers

NOTES: See corresponding CLP report for Case Narrative etc.

Disregard all other metals results reported in this package — validated to CLP procedures

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

9713612.0940

RCRA LEVEL C QC

Name JA Lerch Date 11/9/91

QC Check: Holding time

COMMENTS: - 6 mo Holding time met for all samples

ACTION: none

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

RCRA LEVEL C QC

Name JA Lerch Date 11/9/91

QC Check: Blanks

COMMENTS: -all method blanks free of contamination

ACTION: none

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

RCRA LEVEL C QC

Name JA Lerch Date 10/9/91

QC Check: Spike Recovery

COMMENTS: B00FB7- Sr, Sn MS recoveries within acceptable limits; Bi recovery very low (MSD) ok for MS

ACTION: qualify associated results as per OSM guidelines

sample #	constituent	value/qual	sample #	constituent	value/qual
all	Bi	uJ			

9713512.0943

RCRA LEVEL C QC

Name JA Lerch Date 11/9/91

QC Check: Duplicates

COMMENTS: B00FB7 – Bi, Sr, Sn replicate %D all within applicable limits

ACTION: none

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

9713512.0944

RCRA LEVEL C QC

Name JA Lerch Date 11/9/91

QC Check: LCS

COMMENTS: - all Bi, Sn, Sr LCS recoveries ok

ACTION: none

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

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/13/91

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

WESTON BATCH #: 9103L102

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-001	BOOF91	Silver, Total	10.0	u	UG/L	10.0
		Aluminum, Total	200	u	UG/L	200
		Arsenic, Total	10.0	u	UG/L	10.0
		Barium, Total	200	u	UG/L	200
		Beryllium, Total	5.0	u	UG/L	5.0
		Bismuth, Total	150	uJ	UG/L	150
		Calcium, Total	39400		UG/L	5000
		Cadmium, Total	5.0	u	UG/L	5.0
		Cobalt, Total	50.0	u	UG/L	50.0
		Chromium, Total	10.0	u	UG/L	10.0
		Copper, Total	25.0	u	UG/L	25.0
		Iron, Total	109		UG/L	100
		Mercury, Total	0.20	u	UG/L	0.20
		Potassium, Total	5330		UG/L	5000
		Magnesium, Total	11400		UG/L	5000
		Manganese, Total	15.0	u	UG/L	15.0
		Sodium, Total	23300		UG/L	5000
		Nickel, Total	40.0	u	UG/L	40.0
		Lead, Total	3.0	u	UG/L	3.0
		Antimony, Total	60.0	u	UG/L	60.0
		Selenium, Total	5.0	u	UG/L	5.0
		Tin, Total	100	u	UG/L	100
		Strontium, Total	221		UG/L	100
		Thallium, Total	10.0	u	UG/L	10.0
		Vanadium, Total	50.0	u	UG/L	50.0
		Zinc, Total	30.5		UG/L	20.0

11/9/91

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ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/13/91

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

WESTON BATCH #: 9103L102

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-002	BOOF92	Silver, Soluble	10.0	u	UG/L	10.0
		Aluminum, Soluble	200	u	UG/L	200
		Arsenic, Soluble	10.0	u	UG/L	10.0
		Barium, Soluble	200	u	UG/L	200
		Beryllium, Soluble	5.0	u	UG/L	5.0
		Bismuth, Soluble	150	u J	UG/L	150
		Calcium, Soluble	38200		UG/L	5000
		Cadmium, Soluble	5.0	u	UG/L	5.0
		Cobalt, Soluble	50.0	u	UG/L	50.0
		Chromium, Soluble	10.0	u	UG/L	10.0
		Copper, Soluble	25.0	u	UG/L	25.0
		Iron, Soluble	100	u	UG/L	100
		Mercury, Soluble	0.20	u	UG/L	0.20
		Potassium, Soluble	5120		UG/L	5000
		Magnesium, Soluble	11100		UG/L	5000
		Manganese, Soluble	15.0	u	UG/L	15.0
		Sodium, Soluble	22700		UG/L	5000
		Nickel, Soluble	40.0	u	UG/L	40.0
		Lead, Soluble	3.0	u	UG/L	3.0
		Antimony, Soluble	60.0	u	UG/L	60.0
		Selenium, Soluble	5.0	u	UG/L	5.0
		Tin, Soluble	100	u	UG/L	100
		Strontium, Soluble	215		UG/L	100
		Thallium, Soluble	10.0	u	UG/L	10.0
		Vanadium, Soluble	50.0	u	UG/L	50.0
		Zinc, Soluble	20.1		UG/L	20.0

JJ 11/9/91

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ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/13/91

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

WESTON BATCH # 9103L103

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-001	BOOF98	Silver, Total	10.0	u	UG/L	10.0
		Aluminum, Total	200	u	UG/L	200
		Arsenic, Total	10.0	u	UG/L	10.0
		Barium, Total	200	u	UG/L	200
		Beryllium, Total	5.0	u	UG/L	5.0
		Bismuth, Total	150	u J	UG/L	150
		Calcium, Total	39100		UG/L	5000
		Cadmium, Total	5.0	u	UG/L	5.0
		Cobalt, Total	50.0	u	UG/L	50.0
		Chromium, Total	10.0	u	UG/L	10.0
		Copper, Total	25.0	u	UG/L	25.0
		Iron, Total	108		UG/L	100
		Mercury, Total	0.20	u	UG/L	0.20
		Potassium, Total	5380		UG/L	5000
		Magnesium, Total	13000		UG/L	5000
		Manganese, Total	15.0	u	UG/L	15.0
		Sodium, Total	28800		UG/L	5000
		Nickel, Total	40.0	u	UG/L	40.0
		Lead, Total	3.9		UG/L	3.0
		Antimony, Total	60.0	u	UG/L	60.0
		Selenium, Total	5.0	u	UG/L	5.0
		Tin, Total	100	u	UG/L	100
		Strontium, Total	211		UG/L	100
		Thallium, Total	10.0	u	UG/L	10.0
		Vanadium, Total	50.0	u	UG/L	50.0
		Zinc, Total	108		UG/L	20.0

JJ 11/9/91

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ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/13/91

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

WESTON BATCH #: 9103L103

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-002	BOOF99	Silver, Soluble	10.0	u	UG/L	10.0
		Aluminum, Soluble	200	u	UG/L	200
		Arsenic, Soluble	10.0	u	UG/L	10.0
		Barium, Soluble	200	u	UG/L	200
		Beryllium, Soluble	5.0	u	UG/L	5.0
		Bismuth, Soluble	150	uJ	UG/L	150
		Calcium, Soluble	39400		UG/L	5000
		Cadmium, Soluble	5.0	u	UG/L	5.0
		Cobalt, Soluble	50.0	u	UG/L	50.0
		Chromium, Soluble	10.0	u	UG/L	10.0
		Copper, Soluble	25.0	u	UG/L	25.0
		Iron, Soluble	100	u	UG/L	100
		Mercury, Soluble	0.20	u	UG/L	0.20
		Potassium, Soluble	5700		UG/L	5000
		Magnesium, Soluble	13000		UG/L	5000
		Manganese, Soluble	15.0	u	UG/L	15.0
		Sodium, Soluble	29100		UG/L	5000
		Nickel, Soluble	40.0	u	UG/L	40.0
		Lead, Soluble	3.0	u	UG/L	3.0
		Antimony, Soluble	60.0	u	UG/L	60.0
		Selenium, Soluble	5.0	u	UG/L	5.0
		Tin, Soluble	100	u	UG/L	100
		Strontium, Soluble	213		UG/L	100
		Thallium, Soluble	10.0	u	UG/L	10.0
		Vanadium, Soluble	50.0	u	UG/L	50.0
		Zinc, Soluble	20.0	u	UG/L	20.0

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ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/13/91

CLIENT: WESTINGHOUSE HANFORD

WESTON BATCH #: 9103L104

WORK ORDER: 6168-02-01-0000

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-001	BOOF53	Silver, Total	10.0	u	UG/L	10.0
		Aluminum, Total	200	u	UG/L	200
		Arsenic, Total	10.0	u	UG/L	10.0
		Barium, Total	200	u	UG/L	200
		Beryllium, Total	5.0	u	UG/L	5.0
		Bismuth, Total	150	uJ	UG/L	150
		Calcium, Total	43900		UG/L	5000
		Cadmium, Total	5.0	u	UG/L	5.0
		Cobalt, Total	50.0	u	UG/L	50.0
		Chromium, Total	10.0	u	UG/L	10.0
		Copper, Total	25.0	u	UG/L	25.0
		Iron, Total	100	u	UG/L	100
		Mercury, Total	0.20	u	UG/L	0.20
		Potassium, Total	6380		UG/L	5000
		Magnesium, Total	12600		UG/L	5000
		Manganese, Total	15.0	u	UG/L	15.0
		Sodium, Total	24800		UG/L	5000
		Nickel, Total	40.0	u	UG/L	40.0
		Lead, Total	3.0	u	UG/L	3.0
		Antimony, Total	60.0	u	UG/L	60.0
		Selenium, Total	5.0	u	UG/L	5.0
		Tin, Total	100	u	UG/L	100
		Strontium, Total	241		UG/L	100
		Thallium, Total	10.0	u	UG/L	10.0
		Vanadium, Total	50.0	u	UG/L	50.0
		Zinc, Total	21.7		UG/L	20.0

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ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/13/91

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

WESTON BATCH #: 9103L104

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-002	BOOFH3	Silver, Soluble	10.0	u	UG/L	10.0
		Aluminum, Soluble	200	u	UG/L	200
		Arsenic, Soluble	10.0	u	UG/L	10.0
		Barium, Soluble	200	u	UG/L	200
		Beryllium, Soluble	5.0	u	UG/L	5.0
		Bismuth, Soluble	150	uJ	UG/L	150
		Calcium, Soluble	43700		UG/L	5000
		Cadmium, Soluble	5.0	u	UG/L	5.0
		Cobalt, Soluble	50.0	u	UG/L	50.0
		Chromium, Soluble	10.0	u	UG/L	10.0
		Copper, Soluble	25.0	u	UG/L	25.0
		Iron, Soluble	100	u	UG/L	100
		Mercury, Soluble	0.20	u	UG/L	0.20
		Potassium, Soluble	6200		UG/L	5000
		Magnesium, Soluble	12600		UG/L	5000
		Manganese, Soluble	15.0	u	UG/L	15.0
		Sodium, Soluble	24600		UG/L	5000
		Nickel, Soluble	40.0	u	UG/L	40.0
		Lead, Soluble	3.0	u	UG/L	3.0
		Antimony, Soluble	60.0	u	UG/L	60.0
		Selenium, Soluble	5.0	u	UG/L	5.0
		Tin, Soluble	100	u	UG/L	100
		Strontium, Soluble	240		UG/L	100
		Thallium, Soluble	10.0	u	UG/L	10.0
		Vanadium, Soluble	50.0	u	UG/L	50.0
		Zinc, Soluble	20.0	u	UG/L	20.0

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ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/13/91

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

WESTON BATCH #: 9103L117

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-001	BOOFB1	Silver, Total	10.0	u	UG/L	10.0
		Aluminum, Total	200	u	UG/L	200
		Arsenic, Total	10.0	u	UG/L	10.0
		Barium, Total	200	u	UG/L	200
		Beryllium, Total	5.0	u	UG/L	5.0
		Bismuth, Total	150	uJ	UG/L	150
		Calcium, Total	42200		UG/L	5000
		Cadmium, Total	5.0	u	UG/L	5.0
		Cobalt, Total	50.0	u	UG/L	50.0
		Chromium, Total	10.0	u	UG/L	10.0
		Copper, Total	25.0	u	UG/L	25.0
		Iron, Total	462		UG/L	100
		Mercury, Total	0.20	u	UG/L	0.20
		Potassium, Total	6460		UG/L	5000
		Magnesium, Total	13200		UG/L	5000
		Manganese, Total	15.0	u	UG/L	15.0
		Sodium, Total	21100		UG/L	5000
		Nickel, Total	40.0	u	UG/L	40.0
		Lead, Total	11.4		UG/L	3.0
		Antimony, Total	60.0	u	UG/L	60.0
		Selenium, Total	5.0	u	UG/L	5.0
		Tin, Total	100	u	UG/L	100
		Strontium, Total	208		UG/L	100
		Thallium, Total	10.0	u	UG/L	10.0
		Vanadium, Total	50.0	u	UG/L	50.0
		Zinc, Total	23.9		UG/L	20.0

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ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/13/91

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

WESTON BATCH #: 9103L117

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-002	BOOFB2	Silver, Soluble	10.0	u	UG/L	10.0
		Aluminum, Soluble	200	u	UG/L	200
		Arsenic, Soluble	10.0	u	UG/L	10.0
		Barium, Soluble	200	u	UG/L	200
		Beryllium, Soluble	5.0	u	UG/L	5.0
		Bismuth, Soluble	150	uJ	UG/L	150
		Calcium, Soluble	40700		UG/L	5000
		Cadmium, Soluble	5.0	u	UG/L	5.0
		Cobalt, Soluble	50.0	u	UG/L	50.0
		Chromium, Soluble	10.0	u	UG/L	10.0
		Copper, Soluble	25.0	u	UG/L	25.0
		Iron, Soluble	100	u	UG/L	100
		Mercury, Soluble	0.20	u	UG/L	0.20
		Potassium, Soluble	5720		UG/L	5000
		Magnesium, Soluble	12800		UG/L	5000
		Manganese, Soluble	15.0	u	UG/L	15.0
		Sodium, Soluble	20500		UG/L	5000
		Nickel, Soluble	40.0	u	UG/L	40.0
		Lead, Soluble	3.0	u	UG/L	3.0
		Antimony, Soluble	60.0	u	UG/L	60.0
		Selenium, Soluble	5.0	u	UG/L	5.0
		Tin, Soluble	100	u	UG/L	100
		Strontium, Soluble	202		UG/L	100
		Thallium, Soluble	10.0	u	UG/L	10.0
		Vanadium, Soluble	50.0	u	UG/L	50.0
		Zinc, Soluble	32.1		UG/L	20.0

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ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/13/91

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

WESTON BATCH #: 9103L117

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-005	B00FC8	Silver, Total	10.0	u	UG/L	10.0
		Aluminum, Total	200	u	UG/L	200
		Arsenic, Total	10.0	u	UG/L	10.0
		Barium, Total	200	u	UG/L	200
		Beryllium, Total	5.0	u	UG/L	5.0
		Bismuth, Total	150	uJ	UG/L	150
		Calcium, Total	42700		UG/L	5000
		Cadmium, Total	5.0	u	UG/L	5.0
		Cobalt, Total	50.0	u	UG/L	50.0
		Chromium, Total	10.0	u	UG/L	10.0
		Copper, Total	25.0	u	UG/L	25.0
		Iron, Total	100	u	UG/L	100
		Mercury, Total	0.20	u	UG/L	0.20
		Potassium, Total	5360		UG/L	5000
		Magnesium, Total	15400		UG/L	5000
		Manganese, Total	15.0	u	UG/L	15.0
		Sodium, Total	26600		UG/L	5000
		Nickel, Total	40.0	u	UG/L	40.0
		Lead, Total	3.0	u	UG/L	3.0
		Antimony, Total	60.0	u	UG/L	60.0
		Selenium, Total	5.0	u	UG/L	5.0
		Tin, Total	100	u	UG/L	100
		Strontium, Total	217		UG/L	100
		Thallium, Total	10.0	u	UG/L	10.0
		Vanadium, Total	50.0	u	UG/L	50.0
		Zinc, Total	23.2		UG/L	20.0

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ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/13/91

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

WESTON BATCH #: 9103L117

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-006	BOOFC9	Silver, Soluble	10.0	u	UG/L	10.0
		Aluminum, Soluble	200	u	UG/L	200
		Arsenic, Soluble	10.0	u	UG/L	10.0
		Barium, Soluble	200	u	UG/L	200
		Beryllium, Soluble	5.0	u	UG/L	5.0
		Bismuth, Soluble	150	uJ	UG/L	150
		Calcium, Soluble	43300		UG/L	5000
		Cadmium, Soluble	5.0	u	UG/L	5.0
		Cobalt, Soluble	50.0	u	UG/L	50.0
		Chromium, Soluble	10.0	u	UG/L	10.0
		Copper, Soluble	25.0	u	UG/L	25.0
		Iron, Soluble	100	u	UG/L	100
		Mercury, Soluble	0.20	u	UG/L	0.20
		Potassium, Soluble	5800		UG/L	5000
		Magnesium, Soluble	15500		UG/L	5000
		Manganese, Soluble	15.0	u	UG/L	15.0
		Sodium, Soluble	27700		UG/L	5000
		Nickel, Soluble	40.0	u	UG/L	40.0
		Lead, Soluble	3.0	u	UG/L	3.0
		Antimony, Soluble	60.0	u	UG/L	60.0
		Selenium, Soluble	5.0	u	UG/L	5.0
		Tin, Soluble	100	u	UG/L	100
		Strontium, Soluble	220		UG/L	100
		Thallium, Soluble	10.0	u	UG/L	10.0
		Vanadium, Soluble	50.0	u	UG/L	50.0
		Zinc, Soluble	20.0	u	UG/L	20.0

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ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/13/91

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

WESTON BATCH #: 9104L144

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-001	BOOFB7	Silver, Total	10.0	u	UG/L	10.0
		Aluminum, Total	200	u	UG/L	200
		Arsenic, Total	10.0	u	UG/L	10.0
		Barium, Total	200	u	UG/L	200
		Beryllium, Total	5.0	u	UG/L	5.0
		Bismuth, Total	150	uJ	UG/L	150
		Calcium, Total	42900		UG/L	5000
		Cadmium, Total	5.0	u	UG/L	5.0
		Cobalt, Total	50.0	u	UG/L	50.0
		Chromium, Total	67.7		UG/L	10.0
		Copper, Total	25.0	u	UG/L	25.0
		Iron, Total	326		UG/L	100
		Mercury, Total	0.30		UG/L	0.20
		Potassium, Total	7010		UG/L	5000
		Magnesium, Total	12100		UG/L	5000
		Manganese, Total	15.0	u	UG/L	15.0
		Sodium, Total	32100		UG/L	5000
		Nickel, Total	40.0	u	UG/L	40.0
		Lead, Total	3.0	u	UG/L	3.0
		Antimony, Total	60.0	u	UG/L	60.0
		Selenium, Total	5.0	u	UG/L	5.0
		Tin, Total	100	u	UG/L	100
		Strontium, Total	239		UG/L	100
		Thallium, Total	10.0	u	UG/L	10.0
		Vanadium, Total	50.0	u	UG/L	50.0
		Zinc, Total	20.0	u	UG/L	20.0

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ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/13/91

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

WESTON BATCH #: 9104L144

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-002	BOOFH4	Silver, Soluble	10.0	u	UG/L	10.0
		Aluminum, Soluble	200	u	UG/L	200
		Arsenic, Soluble	10.0	u	UG/L	10.0
		Barium, Soluble	200	u	UG/L	200
		Beryllium, Soluble	5.0	u	UG/L	5.0
		Bismuth, Soluble	150	uJ	UG/L	150
		Calcium, Soluble	41400		UG/L	5000
		Cadmium, Soluble	5.0	u	UG/L	5.0
		Cobalt, Soluble	50.0	u	UG/L	50.0
		Chromium, Soluble	13.1		UG/L	10.0
		Copper, Soluble	25.0	u	UG/L	25.0
		Iron, Soluble	100	u	UG/L	100
		Mercury, Soluble	0.31		UG/L	0.20
		Potassium, Soluble	7010		UG/L	5000
		Magnesium, Soluble	11700		UG/L	5000
		Manganese, Soluble	15.0	u	UG/L	15.0
		Sodium, Soluble	31100		UG/L	5000
		Nickel, Soluble	40.0	u	UG/L	40.0
		Lead, Soluble	3.0	u	UG/L	3.0
		Antimony, Soluble	60.0	u	UG/L	60.0
		Selenium, Soluble	5.0	u	UG/L	5.0
		Tin, Soluble	100	u	UG/L	100
		Strontium, Soluble	232		UG/L	100
		Thallium, Soluble	10.0	u	UG/L	10.0
		Vanadium, Soluble	50.0	u	UG/L	50.0
		Zinc, Soluble	20.0	u	UG/L	20.0

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ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/13/91

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

WESTON BATCH #: 9104L144

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-004	BOOF88	Silver, Total	10.0	u	UG/L	10.0
		Aluminum, Total	200	u	UG/L	200
		Arsenic, Total	10.0	u	UG/L	10.0
		Barium, Total	200	u	UG/L	200
		Beryllium, Total	5.0	u	UG/L	5.0
		Bismuth, Total	150	uJ	UG/L	150
		Calcium, Total	42100		UG/L	5000
		Cadmium, Total	5.0	u	UG/L	5.0
		Cobalt, Total	50.0	u	UG/L	50.0
		Chromium, Total	36.8		UG/L	10.0
		Copper, Total	25.0	u	UG/L	25.0
		Iron, Total	234		UG/L	100
		Mercury, Total	0.30		UG/L	0.20
		Potassium, Total	6930		UG/L	5000
		Magnesium, Total	11900		UG/L	5000
		Manganese, Total	15.0	u	UG/L	15.0
		Sodium, Total	31700		UG/L	5000
		Nickel, Total	40.0	u	UG/L	40.0
		Lead, Total	3.0	u	UG/L	3.0
		Antimony, Total	60.0	u	UG/L	60.0
		Selenium, Total	5.0	u	UG/L	5.0
		Tin, Total	100	u	UG/L	100
		Strontium, Total	236		UG/L	100
		Thallium, Total	10.0	u	UG/L	10.0
		Vanadium, Total	50.0	u	UG/L	50.0
		Zinc, Total	20.0	u	UG/L	20.0

11/9/91

9713512.0958

0000044

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/13/91

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

WESTON BATCH #: 9104L144

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-005	BOOF89	Silver, Soluble	10.0	u	UG/L	10.0
		Aluminum, Soluble	200	u	UG/L	200
		Arsenic, Soluble	10.0	u	UG/L	10.0
		Barium, Soluble	200	u	UG/L	200
		Beryllium, Soluble	5.0	u	UG/L	5.0
		Bismuth, Soluble	150	uJ	UG/L	150
		Calcium, Soluble	40700		UG/L	5000
		Cadmium, Soluble	5.0	u	UG/L	5.0
		Cobalt, Soluble	50.0	u	UG/L	50.0
		Chromium, Soluble	10.8		UG/L	10.0
		Copper, Soluble	25.0	u	UG/L	25.0
		Iron, Soluble	100	u	UG/L	100
		Mercury, Soluble	0.31		UG/L	0.20
		Potassium, Soluble	6670		UG/L	5000
		Magnesium, Soluble	11600		UG/L	5000
		Manganese, Soluble	15.0	u	UG/L	15.0
		Sodium, Soluble	30600		UG/L	5000
		Nickel, Soluble	40.0	u	UG/L	40.0
		Lead, Soluble	3.0	u	UG/L	3.0
		Antimony, Soluble	60.0	u	UG/L	60.0
		Selenium, Soluble	5.0	u	UG/L	5.0
		Tin, Soluble	100	u	UG/L	100
		Strontium, Soluble	229		UG/L	100
		Thallium, Soluble	10.0	u	UG/L	10.0
		Vanadium, Soluble	50.0	u	UG/L	50.0
		Zinc, Soluble	20.0	u	UG/L	20.0

11/9/91

9213512.0959

0000051

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/13/91

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

WESTON BATCH #: 9104L186

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-001	B00FB4	Silver, Total	10.0	u	UG/L	10.0
		Aluminum, Total	200	u	UG/L	200
		Arsenic, Total	10.0	u	UG/L	10.0
		Barium, Total	200	u	UG/L	200
		Beryllium, Total	5.0	u	UG/L	5.0
		Bismuth, Total	150	uJ	UG/L	150
		Calcium, Total	42700		UG/L	5000
		Cadmium, Total	5.0	u	UG/L	5.0
		Cobalt, Total	50.0	u	UG/L	50.0
		Chromium, Total	21.8		UG/L	10.0
		Copper, Total	25.0	u	UG/L	25.0
		Iron, Total	348		UG/L	100
		Mercury, Total	0.30		UG/L	0.20
		Potassium, Total	6970		UG/L	5000
		Magnesium, Total	12000		UG/L	5000
		Manganese, Total	15.0	u	UG/L	15.0
		Sodium, Total	31600		UG/L	5000
		Nickel, Total	40.0	u	UG/L	40.0
		Lead, Total	3.0	u	UG/L	3.0
		Antimony, Total	60.0	u	UG/L	60.0
		Selenium, Total	5.0	u	UG/L	5.0
		Tin, Total	100	u	UG/L	100
		Strontium, Total	239		UG/L	100
		Thallium, Total	10.0	u	UG/L	10.0
		Vanadium, Total	50.0	u	UG/L	50.0
		Zinc, Total	20.0	u	UG/L	20.0

11/9/91

9713512.0960

0000052

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/13/91

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

WESTON BATCH #: 9104L186

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-002	B00FB5	Silver, Soluble	10.0	u	UG/L	10.0
		Aluminum, Soluble	200	u	UG/L	200
		Arsenic, Soluble	10.0	u	UG/L	10.0
		Barium, Soluble	200	u	UG/L	200
		Beryllium, Soluble	5.0	u	UG/L	5.0
		Bismuth, Soluble	150	uJ	UG/L	150
		Calcium, Soluble	39500		UG/L	5000
		Cadmium, Soluble	5.0	u	UG/L	5.0
		Cobalt, Soluble	50.0	u	UG/L	50.0
		Chromium, Soluble	13.8		UG/L	10.0
		Copper, Soluble	25.0	u	UG/L	25.0
		Iron, Soluble	100	u	UG/L	100
		Mercury, Soluble	0.31		UG/L	0.20
		Potassium, Soluble	5890		UG/L	5000
		Magnesium, Soluble	11100		UG/L	5000
		Manganese, Soluble	15.0	u	UG/L	15.0
		Sodium, Soluble	29500		UG/L	5000
		Nickel, Soluble	40.0	u	UG/L	40.0
		Lead, Soluble	3.0	u	UG/L	3.0
		Antimony, Soluble	60.0	u	UG/L	60.0
		Selenium, Soluble	5.0	u	UG/L	5.0
		Tin, Soluble	100	u	UG/L	100
		Strontium, Soluble	222		UG/L	100
		Thallium, Soluble	10.0	u	UG/L	10.0
		Vanadium, Soluble	50.0	u	UG/L	50.0
		Zinc, Soluble	20.0	u	UG/L	20.0

JJ 11/9/91

9713512.0961

OSM INORGANIC DATA ASSESSMENT

DATE 8.23.91

REVIEWED BY LK THOMPSON

LABORATORY WESTON

CASE #

SDG # RFW# 9103L102 /103/104/117
9104L 144/186

SAMPLES/MATRIX

B00F91	B00F92	B00F98
B00F99	B00F53	B00FH3
B00FB1	B00FB2	B00FC8
B00FC9	B00FB7	B00FH4
B00F88	B00F89	B00FB4 B00FB5

— ALL WATER MATRIX —

DATA ASSESSMENT SUMMARY

	ICP	AA	Hg	CN
1. Calibrations (Form II)	O	O	O	O
2. Blanks (III)	X	O	O	O
3. ICS (IV)	X			
4. Matrix Spike (V)	O	X	O	O
5. Duplicate Analysis (VI)	X	O	O	X
6. LCS (VII)	O	O		
7. Serial Dilution (IX)	X			
8. GFAA		X		
9. Holding Times (XIV)	O	O	O	O
10. Other QC	O	O	O	O

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

OVERALL ASSESSSMENT: NO MAJOR PROBLEMS — ALL RESULTS ACCEPTABLE W/ ATTACHED QUALIFIERS

NOTES: ARSENIC RESULTS MISSING B00FB1, B00FB2, B00FC9 and B00FB7 (see p10). ON FORM I'S.

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

— ok to transmit

JJ 10/9/91

9713512.0962

INORGANIC QC - Calibrations

Name LK THOMPSON LKT Date 8.23.91

COMMENTS: - ALL ANALYTICAL RUN SEQUENCES REQUIREMENTS MET
- ALL INITIAL AND CONTINUING CALIBRATION VERIFICATION RECOVERIES WITH ACCEPTABLE QC LIMITS.
- CN MID RANGE STD WAS DISTILLED - OK

ACTION: - CN CORRELATION COEFFICIENT NOT CONTAINED IN PACKAGE HOWEVER R LINEARITY VERY GOOD
- Hg CORRELATION COEFFICIENTS > .995

ACTION: NONE

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

9713612.0963

INORGANIC QC - Blanks

Name LK THOMPSON (LKT) Date 8.23.91

COMMENTS: Fe, Mg, Na, V and Zn were detected in blanks (all below) CRDL's.

ACTION: QUALIFY ASSOCIATED RESULTS VIA OSM GUIDELINES

~~ALL CN RESULTS QUALIFIED AS ESTIMATED DUE TO ABSENCE OF DUP ANALYSIS IN SDG~~ LKT 8.23.91

LKT 8.23.91

sample #	constituent	value/qual
~~ALL~~	~~CN~~	~~UJ~~
B00F91	Fe	109 U
↓	V	28.7 U
	Zn	30.5 U
B00F92	V	30.3 U
↓	Zn	20.1 U
B00F98	Fe	108 U
↓	V	30.0 U
B00F99	V	30.1 U
↓	Zn	17.1 U
B00FH3	V	32.3 U
↓	Zn	21.7 U
B00FH3	V	32.7 U
↓	Zn	17.6 U
B00FB4	Fe	348 U
↓	V	32.4 U
	Zn	8.7 U

sample #	constituent	value/qual
B00FB1	Fe	462 U
↓	V	29.5 U
	Zn	23.9 U
B00FB2	V	26.8 U
↓	Zn	32.1 U
B00FC8	Fe	68.7 U
↓	V	30.5 U
	Zn	23.2 U
B00FC9	V	30.3 U
↓	Zn	8.40 U
B00FB7	Fe	326 U
↓	V	38.3 U
	Zn	8.60 U
B00FH4	V	36.5 U
↓	Zn	4.2 U
B00F88	Fe	234 U
↓	V	37.6 U
B00F89	V	37.6 U
	Zn	4.60 U
B00FB5	V	30.4 U
	Zn	6.7 U

9713512.0964

INORGANIC QC - ICS

Name LK THOMPSON Date 8.28.91

COMMENTS: — ICS ANALYTICAL SEQUENCE - OK

— INITIAL + FINAL ICS %R'S ALL WITHIN ACCEPTABLE QUALITY CONTROL LIMIT

— EVIDENCE OF NEGATIVE INTERFERENT SB

~~ACTION:~~ — EVIDENCE OF POSITIVE INTERFERENTS - MN

ACTION - QUALIFY DATA VIA DSM GUIDELINES

sample #	constituent	value/qual	sample #	constituent	value/qual
ALL	SB	19 UJ			
B00F98	MN	4.3 J			
B00FB1	MN	10.5 J			
B00FB2	MN	4.0 J			
B00FB7	MN	5.0 J			
B00F88	MN	4.6 J			
B00FB4	MN	4.3 J			

9713512.0965

INORGANIC QC - Matrix Spike

Name LK THOMPSON Date 8.23.91

COMMENTS: - MATRIX SPIKE %R WITHIN ACCEPTABLE LIMIT
EXCEPT Se = 222% HIGH
Tl = 62% LOW
As = 63% LOW

ACTION: QUALIFY ASSOCIATED RESULTS VIA: OSM GUIDELINE

sample #	constituent	value/qual
B00F91	As	6.3 J
	Se	1.9 J
	Tl	5.0 UJ
B00F92	As	6.80 J
	Se	2.70 J
	Tl	5.0 UJ
B00F98	As	2.0 UJ
	Se	1.60 J
	Tl	5.0 UJ
B00F99	As	6.5 J
	Se	1.2 J
	Tl	5.0 UJ
B00F53	As	6.8 J
	Se	1.20 J
	Tl	5.0 UJ
B00FH3	As	6.8 J
	Se	1.60 J
	Tl	5.0 UJ
B00FB1	As	0 J
	Se	2.4 J
	Tl	5.0 UJ
B00FB2	As	0 J
	Se	1.1 J
	Tl	5.0 UJ

sample #	constituent	value/qual
B00FC8	As	.9 J
	Se	1.5 J
	Tl	5.0 UJ
B00FC9	As	0 J
	Se	1.3 J
	Tl	5.0 UJ
B00FB7	As	J
	Se	1.5 J
	Tl	5.0 UJ
B00FH4	As	6.5 J
	Se	1.4 J
	Tl	5.0 UJ
B00F88	As	6.5 J
	Se	1.70 J
	Tl	5.0 UJ
B00F89	As	6.9 J
	Se	1.4 J
	Tl	5.0 UJ
B00FB4	As	6.8 J
	Tl	5.0 UJ
B00FB5	As	6.7 J
	Se	1.0 J
	Tl	5.0 UJ

9713512.0966

INORGANIC QC - Duplicate Analysis

Name LK THOMPSON (LKT) Date 8·23·91

COMMENTS: - DUPLICATE ARE WITHIN ± 20% EXCEPT FOR Cr @ 49 and Fe @ 51% OF THE ANALYTES ABOVE THE CRDL.

- CN NO DUPLICATE PERFORMED IN SDG

ACTION: QUALIFY AFFECTED DATA VIA OSM GUIDELINES.

ALL NON-DETECT CN - QUALIFY WITH UJ.

ALL DETECT CN - QUALIFY WITH J.

sample #	constituent	value/qual
B00F91	Cr	9.9 J
↓	Fe	109 UJ
B00F92	Cr	9.5 J
	Fe	37.0 UJ
B00F98	Cr	7.9 J
↓	Fe	108 UJ
B00F99	Cr	8.3 J
↓	Fe	37.0 UJ
B00F53	Cr	9.5 J
↓	Fe	37.0 UJ
B00FH3	Cr	9.2 J
	Fe	37.0 UJ
B00FB1	Cr	5.8 J
↓	Fe	462 UJ
B00FB2	Cr	5.90 J
↓	Fe	37.0 UJ
B00FC8	Cr	6.30 J
↓	Fe	68.7 UJ

sample #	constituent	value/qual
B00FC9	Cr	6.3 J
↓	Fe	37.0 UJ
B00FB7	Cr	67.7 J
	Fe	326 UJ
B00FH4	Cr	13.1 J
↓	Fe	37.0 UJ
B00F88	Cr	36.8 J
	Fe	234 UJ
B00F89	Cr	10.8 J
	Fe	37.0 UJ
B00FB4	Cr	21.8 J
	Fe	348 UJ
B00FB5	Cr	13.8 J
	Fe	37.0 UJ

9713512.0967

INORGANIC QC - LCS

Name LK THOMPSON Date 8-23-91

COMMENTS: - ALL AQUEOUS LCS RECOVERIES WITHIN ACCEPTED QC LIMITS EXCEPT Sb WHICH HAS NONE

ACTION: NONE

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

9713512.0968

INORGANIC QC - Serial Dilution

Name LK THOMPSON Date 8.28.91

COMMENTS: BOOFB7 - ALL % D WITHIN QC CONTROL LIMITS EXCEPT Na and Mg.

ACTION: QUALIFY DATA VIA OSM GUIDELINES

sample #	constituent	value/qual	sample #	constituent	value/qual
~~BOOFB7~~ all 10/9/91	Mg	~~12100~~ J 10/9/91			
	Na	~~32100~~ J			

9713512.0969

INORGANIC QC - Holding Times

Name LK THOMPSON Date 8.23.91

COMMENTS: ALL HOLDING TIME REQUIREMENTS MET FOR METALS + CN

ACTION: NONE

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

9713512.0970

INORGANIC QC - GFAA

Name LK THOMPSON Date 8.28.91

COMMENTS: - ALL GFAA ANALYTICAL SEQUENCE REQUIREMENTS MET
- ALL DUPLICATE INJECTION PRECISION MET
- POST DIGESTION SPIKE RECOVERIES OUTSIDE QCLIM FOR ALL GFAA METALS, As, Tl, Se + Pb

~~ACTION:~~ - MSA REQUIRED FOR Pb & RECORRELATION ≤ .995 FOR

ACTION: QUALIFY DATA VIA OSM GUIDELINES

sample #	constituent	value/qual
B00F91	As	6.7 J
	Pb	2.0 UJ
	Se	1.90 J
	Tl	5.0 UJ
B00F92	As	6.80 J
	Pb	2.0 UJ
	Se	2.70 J
	Tl	5.0 UJ
B00F98	As	2.0 UJ
	Pb	3.9 J
	Se	1.6 J
	Tl	5.0 UJ
B00F99	As	6.5 J
	Pb	2.0 UJ
	Se	1.2 J
	Tl	5.0 UJ
B00F53	As	6.8 J
	Pb	2.0 UJ
	Se	1.2 J
	Tl	5.0 UJ
B00FH3	As	6.8 J
	Se	1.6 J
	Tl	5.0 UJ
B00FB1	Pb	11.2 J
	Se	2.4 J
	Tl	5.0 UJ
B00FB2	Pb	2.0 UJ
	Se	1.1 J
	Tl	5.0 UJ

sample #	constituent	value/qual
B00FC8	Pb	2.0 UJ
	Se	1.5 J
	Tl	5.0 UJ
B00FC9	As	illegible# J ... (see
	Pb	2.0 UJ
	Se	1.3 J
	~~Tl~~	~~5.0~~ LRT
B00FB7	Pb	2.0 UJ
	~~Se~~	LRT
B00FH4	As	6.5 J
	Pb	2.0 UJ
B00F88	As	6.5 J
	Pb	2.0 UJ
B00F89	As	6.9 J
	Pb	2.0 UJ
	Se	1.4 J
B00FB4	As	6.8 J
	Pb	2.0 UJ
B00FB5	As	6.7 J
	Pb	2.0 UJ

9713512.0971

INORGANIC QC - other

Name LK THOMPSON (LKT) Date 8.28.91

COMMENTS: ILLEGIBLE NUMERICAL VALUES ON FORM I FOR AS FOR SAMPLES BOOFB1, BOOFB2 BOOFC9, BOOFB7

ACTION: NEED TO REQUEST LAB TO RESUBMIT RESULT. FORM I.

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

9713512.0972

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOF91

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP102

Matrix (soil/water):WATER Lab Sample ID:9103102001

Level (low/med): LOW Date Received:03/28/91

% 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	UJ	P
7440-38-2	Arsenic	6.30	B	~~W~~ N J	F
7440-39-3	Barium	26.8	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	39400			P
7440-47-3	Chromium	9.90	B	~~*~~ J	P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	109		~~*~~ UJ	P
7439-92-1	Lead	2.00	U	~~W~~ UJ	F
7439-95-4	Magnesium	11400	J	E	P
7439-96-5	Manganese	2.00	U		P
7439-97-6	Mercury	0.200	U		CV
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	5330			P
7782-49-2	Selenium	1.90	B	~~W~~ N J	F
7440-22-4	Silver	4.00	U		P
7440-23-5	Sodium	23300	J	E	P
7440-28-0	Thallium	5.00	U	~~N~~ UJ	F
7440-62-2	Vanadium	28.7	B		P
7440-66-6	Zinc	30.5	U		P
	Cyanide	10.0	U	UJ	C

LJ 8.23.9

LJ 8.28.91

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOF92

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP102

Matrix (soil/water):WATER Lab Sample ID:9103102002

Level (low/med): LOW Date Received:03/28/91

% 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~~	UJ	P
7440-38-2	Arsenic	6.80	~~B~~	~~W~~ N J	F
7440-39-3	Barium	25.4	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	38200			P
7440-47-3	Chromium	9.50	~~B~~	~~W~~ J	P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	37.0	~~U~~	~~W~~ UJ	P
7439-92-1	Lead	2.00	~~U~~	~~W~~ UJ	F
7439-95-4	Magnesium	11100	~~J~~	B	P
7439-96-5	Manganese	2.00	U		P
7439-97-6	Mercury	0.200	U		CV
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	5120			P
7782-49-2	Selenium	2.70	B	~~W~~ N J	F
7440-22-4	Silver	4.00	U		P
7440-23-5	Sodium	22700	~~J~~	B	P
7440-28-0	Thallium	5.00	~~U~~	~~N~~ UJ	F
7440-62-2	Vanadium	30.3	~~B~~	U	P
7440-66-6	Zinc	20.1	~~U~~		P
	Cyanide				

LKT 8.23.91

LKT 8.28.91

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOF98

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP102

Matrix (soil/water):WATER Lab Sample ID:9103103001

Level (low/med): LOW Date Received:03/28/91

% 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~~	UJ	P
7440-38-2	Arsenic	2.00	~~U~~	~~N~~ UJ	F
7440-39-3	Barium	30.7	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	39100			P
7440-47-3	Chromium	7.90	~~B~~	~~*~~ J	P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	108	~~U~~	~~*~~ UJ	P
7439-92-1	Lead	3.90		~~W~~ J	F
7439-95-4	Magnesium	13000	~~J~~	E	P
7439-96-5	Manganese	4.30	~~B~~	J	P
7439-97-6	Mercury	0.200	U		CV
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	5380			P
7782-49-2	Selenium	1.60	~~B~~	~~W~~ ~~N~~ J	F
7440-22-4	Silver	4.00	U		P
7440-23-5	Sodium	28800	~~J~~	E	P
7440-28-0	Thallium	5.00	~~U~~	~~W~~ ~~N~~ ~~UJ~~	F
7440-62-2	Vanadium	30.0	~~B~~	U	P
7440-66-6	Zinc	108			P
	Cyanide	10.0	~~U~~	UJ	C

UKT 8.23.91

UKT 8.28.91

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOF99

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP102

Matrix (soil/water):WATER Lab Sample ID:9103103002

Level (low/med): LOW Date Received:03/28/91

% 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~~	UJ	P
7440-38-2	Arsenic	6.50	B	~~W N~~ J	F
7440-39-3	Barium	31.1	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	39400			P
7440-47-3	Chromium	8.30	~~B~~	~~*~~ J	P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	37.0	~~U~~	~~*~~ UJ	P
7439-92-1	Lead	2.00	~~U~~	~~W~~ UJ	F
7439-95-4	Magnesium	13000	~~J~~	E	P
7439-96-5	Manganese	2.00	U		P
7439-97-6	Mercury	0.200	U		CV
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	5700			P
7782-49-2	Selenium	1.20	B	~~W N~~ J	F
7440-22-4	Silver	4.00	U		P
7440-23-5	Sodium	29100	~~J~~	E	P
7440-28-0	Thallium	5.00	~~U~~	~~W N~~ UJ	F
7440-62-2	Vanadium	30.1	~~B~~	U	P
7440-66-6	Zinc	17.1	~~B~~	U	P
	Cyanide				

LKT 8-23-91

LKT 8-28-91

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.

BOOF53

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP102

Matrix (soil/water):WATER Lab Sample ID:9103104001

Level (low/med): LOW Date Received:03/28/91

% 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~~	UJ	P
7440-38-2	Arsenic	6.80	~~B~~	~~W N~~ J	F
7440-39-3	Barium	29.3	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	43900			P
7440-47-3	Chromium	9.50	~~B~~	~~*~~ J	P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	10.6	B		P
7439-89-6	Iron	37.0	~~U~~	~~*~~ UJ	P
7439-92-1	Lead	2.00	~~U~~	~~W~~ UJ	F
7439-95-4	Magnesium	12600	J	E	P
7439-96-5	Manganese	2.00	U		P
7439-97-6	Mercury	0.200	U		CV
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	6380			P
7782-49-2	Selenium	1.20	~~B~~	~~W N~~ J	F
7440-22-4	Silver	4.00	U		P
7440-23-5	Sodium	24800	J	E	P
7440-28-0	Thallium	5.00	~~U~~	~~W N~~ UJ	F
7440-62-2	Vanadium	32.3	~~B~~	U	P
7440-66-6	Zinc	21.7	~~U~~		P
	Cyanide	330		J	C

LKT 8.23.91

LKT 8.28.91

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOFH3

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP102

Matrix (soil/water):WATER Lab Sample ID:9103104002

Level (low/med): LOW Date Received:03/28/91

% 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~~	UJ	P
7440-38-2	Arsenic	6.80	~~B~~	~~W~~ N J	F
7440-39-3	Barium	28.6	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	43700			P
7440-47-3	Chromium	9.20	~~B~~	* J	P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	37.0	~~U~~	~~X~~ UJ	P
7439-92-1	Lead	2.00	U		F
7439-95-4	Magnesium	12600	J	E	P
7439-96-5	Manganese	2.00	U		P
7439-97-6	Mercury	0.200	U		CV
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	6200			P
7782-49-2	Selenium	1.60	~~B~~	~~W~~ N J	F
7440-22-4	Silver	4.00	U		P
7440-23-5	Sodium	24600	J	E	P
7440-28-0	Thallium	5.00	U	~~W~~ N UJ	F
7440-62-2	Vanadium	32.9	~~B~~	U	P
7440-66-6	Zinc	17.6	~~B~~	U	P
	Cyanide				

LCT 8.23.91

LCT 8.28.91

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.

BOOFB1

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP102

Matrix (soil/water):WATER Lab Sample ID:9103117001

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

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	77.0	U		P
7440-36-0	Antimony	19.0	U	UJ	P
7440-38-2	Arsenic	. 0	B	~~N~~ J	F
7440-39-3	Barium	32.0	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	42200			P
7440-47-3	Chromium	5.80	B	~~N~~ J	P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	462	U	~~N~~ UJ	P
7439-92-1	Lead	11.2		~~S~~ J	F
7439-95-4	Magnesium	13200	J	E	P
7439-96-5	Manganese	10.5	B	J	P
7439-97-6	Mercury	0.200	U		CV
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	6460			P
7782-49-2	Selenium	2.40	B	~~W~~ J	F
7440-22-4	Silver	4.00	U		P
7440-23-5	Sodium	21100	J	E	P
7440-28-0	Thallium	5.00	U	~~N~~ UJ	F
7440-62-2	Vanadium	29.5	B	M	P
7440-66-6	Zinc	23.9	U		P
	Cyanide	12.8	J		C

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

LH 8.22.91

LH 8.28.91

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOFB2

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP102

Matrix (soil/water):WATER Lab Sample ID:9103117002

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

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	77.0	U		P
7440-36-0	Antimony	19.0	~~U~~	UJ	P
7440-38-2	Arsenic	0	~~B~~	~~N~~ UJ	F
7440-39-3	Barium	30.7	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	40700			P
7440-47-3	Chromium	5.90	~~B~~	~~*~~ J	P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	37.0	U	~~*~~ UJ	P
7439-92-1	Lead	2.00	U	~~W~~ UJ	F
7439-95-4	Magnesium	12800	J	E	P
7439-96-5	Manganese	4.00	~~B~~	J	P
7439-97-6	Mercury	0.200	U		CV
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	5720			P
7782-49-2	Selenium	1.10	~~B~~	~~W~~ ~~N~~ J	F
7440-22-4	Silver	4.00	U		P
7440-23-5	Sodium	20500	J	E	P
7440-28-0	Thallium	5.00	U	~~W~~ ~~N~~ UJ	F
7440-62-2	Vanadium	26.8	~~B~~	U	P
7440-66-6	Zinc	32.1	~~U~~		P
	Cyanide				

LKI 8.23.91

LKI 8.28.91

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.

B00FC8

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP102

Matrix (soil/water):WATER Lab Sample ID:9103117005

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

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	77.0	U		P
7440-36-0	Antimony	19.0	~~U~~	NJ	P
7440-38-2	Arsenic	.90	~~B~~	~~W~~ J	F
7440-39-3	Barium	35.4	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	42700			P
7440-47-3	Chromium	6.30	~~B~~	~~W~~ J	P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	68.7	B	~~W~~ NJ	P
7439-92-1	Lead	2.00	~~U~~	~~W~~ NJ	F
7439-95-4	Magnesium	15400	J	E	P
7439-96-5	Manganese	2.00	U		P
7439-97-6	Mercury	0.200	U		CV
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	5360			P
7782-49-2	Selenium	1.50	~~B~~	~~W~~ N J	F
7440-22-4	Silver	4.00	U		P
7440-23-5	Sodium	26600	J	E	P
7440-28-0	Thallium	5.00	~~U~~	~~W~~ NJ	F
7440-62-2	Vanadium	30.5	B		P
7440-66-6	Zinc	23.2			P
	Cyanide	13.9	J		C

LK 8.23.91

LK 8.28.91

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.

BOOFC9

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP102

Matrix (soil/water):WATER Lab Sample ID:9103117006

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

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	77.0	U		P
7440-36-0	Antimony	19.0	~~U~~	UJ	P
7440-38-2	Arsenic	. J	~~B~~ ~~W~~ UJ		F
7440-39-3	Barium	35.9	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	43300			P
7440-47-3	Chromium	6.30	~~B~~ ~~W~~ J		P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	37.0	~~U~~ ~~W~~ UJ		P
7439-92-1	Lead	2.00	~~U~~ ~~W~~ UJ		F
7439-95-4	Magnesium	15500	J	E	P
7439-96-5	Manganese	2.00	U		P
7439-97-6	Mercury	0.200	U		CV
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	5800			P
7782-49-2	Selenium	1.30	~~B~~ ~~W~~ UJ		F
7440-22-4	Silver	4.00	U		P
7440-23-5	Sodium	27700	J	E	P
7440-28-0	Thallium	5.00	~~U~~ ~~W~~ UJ		F
7440-62-2	Vanadium	30.3	~~B~~ U		P
7440-66-6	Zinc	6.40	~~B~~ U		P
	Cyanide				

LJS 8-2-91

LJS 8-28-91

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.

BOOFB7

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP102

Matrix (soil/water):WATER Lab Sample ID:9104144001

Level (low/med): LOW Date Received:04/03/91

% 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~~	UJ	P
7440-38-2	Arsenic		~~B~~ ~~N~~	J	F
7440-39-3	Barium	23.5	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	42900			P
7440-47-3	Chromium	67.7		J	P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	326	~~U~~	UJ	P
7439-92-1	Lead	2.00	~~U~~ ~~W~~	UJ	F
7439-95-4	Magnesium	12100		J	P
7439-96-5	Manganese	5.00	~~B~~	J	P
7439-97-6	Mercury	0.297			CV
7440-02-0	Nickel	21.8	B		P
7440-09-7	Potassium	7010			P
7782-49-2	Selenium	1.50	~~B~~ ~~N~~	J	F
7440-22-4	Silver	4.00	U		P
7440-23-5	Sodium	32100		J	P
7440-28-0	Thallium	5.00	~~U~~ ~~N~~	UJ	F
7440-62-2	Vanadium	38.3	~~B~~	U	P
7440-66-6	Zinc	8.60	~~B~~	U	P
	Cyanide	61.7	J		C

LA 8.23.91

LA 8.28.91

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.

BOOFH4

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

Lab Code: WESTON Case No: WEST SAS No.: SDG No.: CLP102

Matrix (soil/water): WATER Lab Sample ID: 9104144002

Level (low/med): LOW Date Received: 04/03/91

% 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	UJ	P
7440-38-2	Arsenic	6.50	~~B~~	~~NW~~ J	F
7440-39-3	Barium	21.5	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	41400			P
7440-47-3	Chromium	13.1		J	P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	37.0	U	~~W~~ UJ	P
7439-92-1	Lead	2.00	U	~~W~~ UJ	F
7439-95-4	Magnesium	11700	J	E	P
7439-96-5	Manganese	2.00	U		P
7439-97-6	Mercury	0.312			CV
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	7010			P
7782-49-2	Selenium	1.40	~~B~~	~~N~~ J	F
7440-22-4	Silver	4.00	U		P
7440-23-5	Sodium	31100	J	E	P
7440-28-0	Thallium	5.00	U	~~W~~ UJ	F
7440-62-2	Vanadium	36.5	~~B~~	U	P
7440-66-6	Zinc	4.20	~~B~~	U	P
	Cyanide				

LH 8.23.91

LH 8.28.91

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.

BOOF88

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP102

Matrix (soil/water):WATER Lab Sample ID:9104144004

Level (low/med): LOW Date Received:04/03/91

% 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~~	UJ	P
7440-38-2	Arsenic	6.50	~~B~~	~~NW~~ J	F
7440-39-3	Barium	22.0	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	42100			P
7440-47-3	Chromium	36.8		~~*~~ J	P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	234	U	*	P
7439-92-1	Lead	2.00	~~U~~	~~W~~ UJ	F
7439-95-4	Magnesium	11900	J	E	P
7439-96-5	Manganese	4.60	~~B~~	J	P
7439-97-6	Mercury	0.297			CV
7440-02-0	Nickel	10.2	B		P
7440-09-7	Potassium	6930			P
7782-49-2	Selenium	1.30	~~B~~	~~N~~ J	F
7440-22-4	Silver	4.00	U		P
7440-23-5	Sodium	31700	J	E	P
7440-28-0	Thallium	5.00	~~U~~	~~N~~ UJ	F
7440-62-2	Vanadium	37.6	~~B~~	U	P
7440-66-6	Zinc	7.10	B		P
	Cyanide	25.0	J		C

LK 8.23.91

LK 8.28.91

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.

BOOF89

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP102

Matrix (soil/water):WATER Lab Sample ID:9104144005

Level (low/med): LOW Date Received:04/03/91

% 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	UJ	P
7440-38-2	Arsenic	6.90	B	~~NW~~ J	F
7440-39-3	Barium	21.0	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	40700			P
7440-47-3	Chromium	10.8		J	P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	37.0	U	~~*~~ UJ	P
7439-92-1	Lead	2.00	U	~~W~~ UJ	F
7439-95-4	Magnesium	11600	J	E	P
7439-96-5	Manganese	2.00	U		P
7439-97-6	Mercury	0.312			CV
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	6670			P
7782-49-2	Selenium	1.40	B	~~NW~~ J	F
7440-22-4	Silver	4.00	U		P
7440-23-5	Sodium	30600	J	E	P
7440-28-0	Thallium	5.00	U	~~N~~ UJ	F
7440-62-2	Vanadium	37.6	B	N	P
7440-66-6	Zinc	4.60	B	N	P
	Cyanide				

LH 8.23.91

LH 8.28.91

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.

B00FB4

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

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP102

Matrix (soil/water):WATER Lab Sample ID:9104186001

Level (low/med): LOW Date Received:04/05/91

% 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~~	UJ	P
7440-38-2	Arsenic	6.80	~~B~~	~~W~~ UJ	F
7440-39-3	Barium	23.6	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	42700			P
7440-47-3	Chromium	21.8		~~K~~ J	P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	348	~~U~~	~~E~~ UJ	P
7439-92-1	Lead	2.00	~~U~~	~~W~~ UJ	F
7439-95-4	Magnesium	12000	J	E	P
7439-96-5	Manganese	4.30	~~B~~	J	P
7439-97-6	Mercury	0.297			CV
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	6970			P
7782-49-2	Selenium	1.00	U	N	F
7440-22-4	Silver	4.00	U		P
7440-23-5	Sodium	31600	J	E	P
7440-28-0	Thallium	5.00	~~U~~	~~N~~ UJ	F
7440-62-2	Vanadium	32.4	~~B~~	N	P
7440-66-6	Zinc	8.70	~~B~~	N	P
	Cyanide	31.4	J		C

LKT 8.23.91

LR 8.28.91

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B00FB5

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

Lab Code: WESTON Case No: WEST SAS No.: SDG No.: CLP102

Matrix (soil/water): WATER Lab Sample ID: 9104186002

Level (low/med): LOW Date Received: 04/05/91

% 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~~	UJ	P
7440-38-2	Arsenic	6.70	B	~~W~~ ~~N~~ J	F
7440-39-3	Barium	21.7	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	39500			P
7440-47-3	Chromium	13.8		~~K~~ J	P
7440-48-4	Cobalt	4.00	U		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	37.0	U	~~K~~ UJ	P
7439-92-1	Lead	2.00	~~U~~	~~W~~ UJ	F
7439-95-4	Magnesium	11100	~~J~~	E	P
7439-96-5	Manganese	2.00	U		P
7439-97-6	Mercury	0.312			CV
7440-02-0	Nickel	7.00	U		P
7440-09-7	Potassium	5890			P
7782-49-2	Selenium	1.00		~~N~~ J	F
7440-22-4	Silver	4.00	U		P
7440-23-5	Sodium	29500	J	E	P
7440-28-0	Thallium	5.00	U	~~N~~ UJ	F
7440-62-2	Vanadium	30.4	B	N	P
7440-66-6	Zinc	6.70	B	N	P
	Cyanide				

UJ 8.23.91

UJ 8.28.91

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments: