133 ff

2

9103L104-WES-016

0000002

0046090

Custody Transfer Record/Lab Work Request

WESTON

WESTON Analytics Use Only
9103L104

WE HANFORD

Client: Westinghouse Hanford
Work Order: 6168-02-01
Date Rec'd.: 3/28/91 Date Due: 5/7/91
RFW Contact: J Kung
Client Contact/Phone: 4222

Refrigerator#	1	6	6	3	4	1	3	3	3
#/Type Container	3/G	1/G	1/G	1/P	1 Kgal	1/G	1/P	1/P	1/P
Volume	40ml	2/1LTR	2LTR	LTR	1LTR 125ml	125	LTR	LTR	LTR
Preservative	none	none	none	HNO3		H2SO4	none	H2SO4	none
ANALYSES REQUESTED	VOA	PPCB	BNA	Metal 1	RAD WORK	TOC	Anions (1)	Anions (2)	Anions (2)

WA Use Only Lab ID	Client ID/Description	Matrix	Date Collected	VOA	PPCB	BNA	Metal 1	RAD WORK	TOC	Anions (1)	Anions (2)	Anions (2)
001	B00F53	W	3/25/91	✓	✓	✓	Tot	✓	✓	✓	✓	✓
002	B00FH3	W	3/25/91				Sol					

Anions (1) - PH, Spec, ALKL, TDS, SO4
Anions (2) HARD, NH3N, NO3, NO2
Anions - ICCL, ICFL, IC SO4, IC PO4, IC NO3, IC NO2
RADWORK - see westinghouse work plan

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

Special Instructions:
Metals = HSL + BI, SR, SN
001 = Total
002 = Soluble

QC/Data = CLP
TAT = 35 days

Item/Reason	Relinquished by	Received by	Date	Time	Item/Reason	Relinquished by	Received by	Date	Time
Emery	[signature]	[signature]	3/28/91	9:30					
Fuellhart	Lisa Fleming	[signature]	3/28/91	5:01					

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: IC NO3, IC NO2 Anions - PH, ALK

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:

START

DEC 1995 RECEIVED

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

7 115

9113512.0771

0000014

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

BOOF53

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L104-001

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

Lab File ID: AK4112

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	3	JB
67-64-1	Acetone	9	JB
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

CLIENT SAMPLE NO.

BOOF53

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L104-001

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

Lab File ID: AK4112

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.				

9213512.0773 0000054

1A

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

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

9713512.0774

0000055

CLIENT SAMPLE NO.

VBLK

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

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.				

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

BOOF53

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L104-001

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

Lab File ID: V042515

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	7	JB
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	14	B
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	3	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	4	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	4	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	13	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

9213512.0776 0000020

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

BOOF53

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 9103L104-001

Sample wt/vol: 990 (g/mL) ML Lab File ID: V042515

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	5	JB
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	8	JS
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	5	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	12	JS
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	1	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	4	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

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BOOF53

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 9103L104-001

Sample wt/vol: 990 (g/mL) ML Lab File ID: V042515

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: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	18.42	4	J
2.	HYDROCARBON	24.77	3	JB

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0 0 0 0 1 6 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

9113512.0779

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0 0 0 0 1 6 CLIENT SAMPLE NO.

SBLK

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	
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

9713512.0780

0000168

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

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

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET

00002 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

FORM 1 SV-1

12/88 Rev.

SEMIVOLATILE ORGANICS ANALYSIS SHEET

00002 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

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0 0 0 0 2 0 9

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		
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

0 0 0 0 2 0 CLIENT SAMPLE NO.

SBLKMSD

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

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

FORM 1 SV-2

12/88 Rev.

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B00F53MS

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 9103L104-001 MS

Sample wt/vol: 990 (g/mL) ML Lab File ID: V042516

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		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

1C

0 0 0 0 2 1 7

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B00F53MS

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L104-001 MS

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

Lab File ID: V042516

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		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)	10	U
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	1	J
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

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

9713512.0787

0 0 0 0 2 2

CLIENT SAMPLE NO.

BOOF53MSD

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L104-001 MSD

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

Lab File ID: V042517

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		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.

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 0 0 0 0 2 2 5

CLIENT SAMPLE NO.

BOOF53MSD

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 9103L104-001 MSD

Sample wt/vol: 990 (g/mL) ML Lab File ID: V042517

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		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)	10	U
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

9713512.0789
1D

0000012
CLIENT SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS SHEET

BOOF53

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L104-001

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

Lab File ID: 05079113.17

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

JY
6/28/91

9213512.0790 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

6/25/91

0000121

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

PBLKMS

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 91LE0423-MB2 BS

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

Lab File ID: 05079113.30

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: 2.00

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

CAS NO.	COMPOUND		
319-84-6	Alpha-BHC	0.10	U
319-85-7	Beta-BHC	0.10	U
319-86-8	Delta-BHC	0.10	U
58-89-9	gamma-BHC (Lindane)		S
76-44-8	Heptachlor		S
309-00-2	Aldrin		S
1024-57-3	Heptachlor epoxide	0.10	U
959-98-8	Endosulfan I	0.10	U
60-57-1	Dieldrin		S
72-55-9	4,4'-DDE	0.20	U
72-20-8	Endrin		S
33213-65-9	Endosulfan II	0.20	U
72-54-8	4,4'-DDD	0.020	J
1031-07-8	Endosulfan sulfate	0.20	U
50-29-3	4,4'-DDT		S
72-43-5	Methoxychlor	1.0	U
53494-70-5	Endrin ketone	0.20	U
5103-71-9	alpha-Chlordane	1.0	U
5103-74-2	gamma-Chlordane	1.0	U
8001-35-2	Toxaphene	2.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	2.0	U
11096-82-5	Aroclor-1260	2.0	U

MC 6/05/91

S: SPIKE COMPOUND

FORM 1 PEST

12/88 Rev.

9713512.0792

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 04/24/91

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

WESTON BATCH #: 9103L104

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	BOOF53	Alkalinity	94.0	MG/L	2.0
		Chloride by IC	5.4	mg/L	0.25
		Fluoride by IC	0.80	mg/L	0.50
		Nitrite by IC	0.25 u	mg/L	0.25
		Nitrate by IC	57.1	mg/L	2.5
		Cyanide, Total	330	UG/L	50.0
		Phosphate by IC	0.25 u	mg/L	0.25
		Sulfate by IC	38.6	mg/L	2.5
		Hardness	136	MG/L	2.0
		Nitrate Nitrite	26.1	MG/L	10.0
		Ammonia, as N	0.10 u	MG/L	0.10
		Total Organic Carbon	0.80	MG/L	0.50
		pH	7.6	PH UNITS	0.010
		Sulfate	197	MG/L	50.0
		Specific Conductance	346	UMHOS/CM	1.0
		Total Dissolved Solids	290	MG/L	5.0

9713512.0793

ROY F. WESTON INC.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 04/24/91

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

WESTON BATCH #: 9103L104

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

9713512.0794

ROY F. WESTON INC.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 04/24/91

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

WESTON BATCH #: 9103L104

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

9713512.0795

ROY F. WESTON INC.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 04/24/91

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

WESTON BATCH #: 9103L104

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

9713512.0796

ROY F. WESTON INC.

INORGANICS ACCURACY REPORT 04/24/91

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

WESTON BATCH #: 9103L104

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV
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
BLANK10	91LNO129-MB1	Nitrate Nitrite	0.44	0.10u	0.40	110
		Nitrate Nitrite MSD	0.42	0.10u	0.40	105

9713512.0797

ROY F. WESTON INC.

INORGANICS ACCURACY REPORT 04/24/91

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

WESTON BATCH #: 9103L104

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV
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
BLANK40	91LS4025-MB4	Sulfate	42.4	5.0 u	40.0	106

9713512.0798

ROY F. WESTON INC.

INORGANICS ACCURACY REPORT 04/24/91

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

WESTON BATCH #: 9103L104

SAMPLE	SITE ID	ANALYTE		SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV
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

9713512.0799

ROY F. WESTON INC.

INORGANICS DUPLICATE SPIKE REPORT 04/24/91

CLIENT: WESTINGHOUSE HANFORD

WESTON BATCH #: 9103L104

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

9713512.0800

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

9713512.0801

OSM ORGANIC DATA ASSESSMENT

DATE 8/7/91 SAMPLES/MATRIX B00F53 water

REVIEWED BY LK Thompson for LKT 10/12/91

LABORATORY Weston

~~CASE #~~ RFW # 9103404

SDG # N/A

DATA ASSESSMENT SUMMARY

	VOA	ABN	PEST
1. Holding Times (Form I)	O	O	O
2. Surrogate Recovery (II)	O	X ~~O~~ 10/12/91	O
3. Matrix Spike/ MSD (III)	O	X	O
4. Blanks (IV)	X	X	O
5. GC/MS Tune (V)	O	O	
6. Calibration (VI-VII; VIII pest)	O	O	X
7. Internal Standards (VIII)	O	X	
8. Instr. Perform. (IX pest)			O
9. Other ( )	O	O	O

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

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

NOTES : none

Refer to the corresponding attachments for explanation of any problems.

ok to transmit

10/12/91

9713512.0802

ORGANIC QC - Holding Times

Name LK THOMPSON (LKT) Date 8.7.91

COMMENTS: VOA - All HT Requirements met
BNA all HT Requirements met
PEST - ALL HT REQUIREMENTS MET

ACTION: NONE

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

9713512.0803

ORGANIC QC - Surrogate Recovery

Name LK THOMPSON Date 8.7.91

COMMENTS: VOA: ALL SURROGATES WITHIN QC LIMITS

BNA: ONE SURROGATE (#S2-FBP) WAS ~~LOW~~ SLIGHTLY BELOW THE QC LIMIT FOR B00F53. → NO ACTION NEEDED

TWO SURROGATES IN BLANK WERE OUTSIDE QC LIMITS HOWEVER BS/BSD STUDY HAD SURROGATES WITHIN LIMITS ∴ NO ACT NEED.

PEST: ALL DBC SURROGATE RECOVERIES WITHIN LIMITS.

ACTION: none

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

9713512.0804

ORGANIC QC - MS/MSD

Name ZK THOMPSON VH Date 8.7.91

COMMENTS: VOA :→ MS/MSD OF B00F91 (RFW 9103L102) all RECOVERIES and RPDs within QC LIMITS, → BLANK MS/BSD all RECOVERIES and RPDS within QC LIMITS.

BNA - ~~ONE~~ ALL SPIKE RECOVERIES WERE WITHIN QC LIMITS. The RPD of 4-NITROPHENOL WAS OUTSIDE QC LIMIT → (NO ACTION NEEDED)

PEST → MS/MSD OF B00F91 (RFW 9103L102) all Recoveries and RPDs WITHIN LIMITS - PBLK-MS BLANK SPIKE HAD RECOVERIES WITHIN LIMITS.

~~ACTION:~~

ACTION: none

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

9713512.0805

ORGANIC QC - Blanks

Name LK Thompson for LKT 10/12/91 Date 8/7/91

COMMENTS: VOA, SemiVOA, Pest method blank summaries ok

VOA - VBLK contained $MeCl_2$, acetone; no TIC's

BNA - blank contaminated w/ MS/MSD mixture; bis(2-ethylhexyl)phthalate

Pest - PBLK free of contamination

ACTION: qualify associated data as per OSM guidelines

	sample #	constituent	value/qual	sample #	constituent	value/qual
VOA	B00F53	$MeCl_2$	5U			
		acetone	10U			
SemiVOA		N-nitroso-di-n-propylamine	10U			
		1,2,4 trichlorobenzene	10U			
		4-chloro-3-methylphenol	13U			
		acenathrene	10U			
		4-nitrophenol	10U			
		2-4 dinitrotoluene	10U			
		pentachlorophenol	50U			
		pyrene	10U			

9713512.0806

ORGANIC QC - GC/MS Tune

Name LK THOMPSON LKT Date 8. 7.91

COMMENTS: VOA - ALL m/z TUNE CALIBRATIONS WITHIN QC LIMITS
FORM V - VOAS - IN ORDER
BNA - ALL m/z TUNE CALIBRATIONS WITHIN QC LIMITS
FORM V - BNA · CORRECT

ACTION: none

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

9713512.0807

ORGANIC QC - Calibrations

Name LK THOMPSON LKT Date 8.7.91

COMMENTS: VOA: INITIAL & CONTINUING CALIBRATION OK

BNA: INITIAL & CONTINUING CALIBRATION OK

PEST: ANALYTICAL 72 HR SEQUENCE CORRECT

INITIAL CALIBRATION OK

CONTINUING CALIBRATION %D > 15% QUANT

ACTION: QUALIFY AFFECTED DATA VIA OSM GUIDELINES

sample #	constituent	value/qual	sample #	constituent	value/qual
B00F53	ALL PESTICIDE ANALYTES	VALUE/UJ			

9713512.0808

ORGANIC QC - Internal Standards

Name LK THOMPSON (LK) Date 8.7.91

COMMENTS: (VOA) - IS AREA all WITHIN QC LIMITS
- ALL RTS WITHIN QC WINDOW LIMITS
(BNA): ALL RTS WITHIN QC WINDOW LIMITS
- B00F53 and B00F53 MS and B00F53 MSD HAD IS6 OUT OF LIMITS - LAB VIOLATED CLP PARA 6.1.1 PE-~~12~~/50V
ALSO IS5 in B00F53 MS/MSD area OUTSIDE QC WINDOW (ie. NO ACTION)

ACTION: qualify all analytes which are quantitated via IS6 for B00F53 according to OSW Guidelines.

sample #	constituent	value/qual	sample #	constituent	value/qual
B00F53	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			
	Dibenz (a,h) Anthracene	10 UJ			
	Benzo (g,h,i) perylene	10 UJ			

9713512.0809

ORGANIC QC - Instrument Performance (pest)

Name LK THOMPSON (LKT) Date 8-7-91

COMMENTS: → DDT RT > 12 min CORRECT

→ all PESTICIDE STDS WITHIN RT WINDOWS

→ DDT/ENDRIN BREAKDOWN < 20% CORRECT

→ % D for DBC < 1.5% FOR WIDE BORE CAPILLARY.

ACTION: none

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

9713512.0810

ORGANIC QC - Other

Name LK THOMPSON Date 8.7.91

COMMENTS: VOA - none

BNA - NONE

PEST - none

ACTION: none

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

0 0 0 0 0 1 7

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

BOOF53

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L104-001

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

Lab File ID: AK4112

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	~~3~~ 5	~~JB~~ U
67-64-1	Acetone	~~9~~ 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	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

LG 8.7.91

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

BOOF53

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L104-001

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

Lab File ID: AK4112

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.				

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET

0 0 0 0 0 1 0

CLIENT SAMPLE NO.

BOOF53

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L104-001

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

Lab File ID: V042515

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	~~7~~ 10	~~JB~~U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	14	~~B~~U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	~~3~~ 10	~~JB~~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	~~4~~ 10	~~JB~~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	~~4~~ 10	~~JB~~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	13	~~B~~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

UD 8.7.91

1C

0 0 0 0 0 2 0

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

BOOF53

Lab Name: Roy F. Weston, Inc. Work Order: 3168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9103L104-001

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

Lab File ID: V042515

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	~~5~~ 10	~~JB~~ U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	~~8~~ 10	~~JB~~ U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	~~5~~ 10	~~JB~~ 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	~~12~~ 50	~~JB~~ U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	1	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	~~4~~ 10	~~JB~~ 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~~ UJ
205-99-2	Benzo(b)fluoranthene	10	~~U~~ UJ
207-08-9	Benzo(k)fluoranthene	10	~~U~~ UJ
50-32-8	Benzo(a)pyrene	10	~~U~~ UJ
193-39-5	Indeno(1,2,3-cd)pyrene	10	~~U~~ UJ
53-70-3	Dibenzo(a,h)anthracene	10	~~U~~ UJ
191-24-2	Benzo(g,h,i)perylene	10	~~U~~ UJ

LKT 8.7.91

(1) - Cannot be separated from Diphenylamine

FORM 1 SV-2

12/88 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

0 0 0 0 0 2 CLIENT SAMPLE NO.

B00F53

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 9103L104-001

Sample wt/vol: 990 (g/mL) ML Lab File ID: V042515

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: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	18.42	4	J
2.	HYDROCARBON	~~24.77~~	~~3~~	~~JB~~

JF 10/12/9

FORM 1 SV-TIC 12/88 Rev.

0000012

1D

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

BOOF53

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 9103L104-001

Sample wt/vol: 990 (g/mL) ML Lab File ID: 05079113.17

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 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

1U 6/28/91

LKF 8.7.91

FORM 1 PEST 12/88 Rev.

9713512.0817

Westinghouse
Hanford Company

OSM RCRA LEVEL C DATA ASSESSMENT

DATE 11/10/91 SAMPLES/MATRIX B00F53 water

REVIEWED BY JA Lerch

LABORATORY Weston

CASE # —

~~SDG #~~ ZFW 9103L104

DATA ASSESSMENT SUMMARY

QUALITY CONTROL CHECK	ANALYSIS	Alkalinity	Anions IC[1]	Hardness
1. Holding Time		O	X	O
2. Blanks		O	O	O
3. Spike Recovery		O	O	O
4. Duplicates		NE	NE	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

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

NOTES: disregard CN results - reported and validated according to CLP procedures

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

[1]anions include - chloride, nitrate, nitrite, phosphate, fluoride, sulfate

Westinghouse Hanford Company

9713512.0818

OSM RCRA LEVEL C DATA ASSESSMENT (pg 2)

DATE 11/10/91

SAMPLES/MATRIX See cover

REVIEWED BY JA Lerch

LABORATORY Weston

CASE # —

SDG # —

RFW# 91031104

DATA ASSESSMENT SUMMARY

QUALITY CONTROL CHECK	ANALYSIS	NO_2/NO_3	Ammonia	TOC
1. Holding Time		O	O	O
2. Method Blank		O	O	O
3. Spike Recovery		O	O	O
4. Duplicates		O	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

OVERALL ASSESSSMENT: See Cover

NOTES: See Cover

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

9713512.0819

Westinghouse Hanford Company

OSM RCRA LEVEL C DATA ASSESSMENT (pg 3)

DATE 11/10/91

SAMPLES/MATRIX See cover

REVIEWED BY JA Lerch

LABORATORY Weston

CASE # –

SDG # –

RFW# 91036104

DATA ASSESSMENT SUMMARY

QUALITY CONTROL CHECK	ANALYSIS	Sulfate	Conductance	TDS
1. Holding Time		O	O	O
2. Blanks		O	O	O
3. Spike Recovery		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

OVERALL ASSESSSMENT: See cover

NOTES: See Cover

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

9713512.0820

RCRA LEVEL C QC

Name JA Lerch Date 11/10/91

QC Check: Holding Time

COMMENTS: phosphate, nitrite, nitrate-48 hr Ht missed
No HT specified for TDS, hardness - all other
Holding time criteria met

ACTION: qualify associated results as per
OSM guidelines

sample #	constituent	value/qual	sample #	constituent	value/qual
B00F53	Nitrite	UJ			
	Nitrate	J			
	phosphate	J			

RCRA LEVEL C QC

Name JA Lerch Date 11/10/91

QC Check: Blanks

COMMENTS: method blank results show no contamination for all analytes

ACTION: none

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

9715512.0822

RCRA LEVEL C QC

Name JA Lerch Date 11/10/91

QC Check: Spike Recovery

COMMENTS: -all blank spike recoveries within acceptable limits for all analytes (TDS N/A)

ACTION: none

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

9713512.0823

RCRA LEVEL C QC

Name JA Lerch Date 11/10/91

QC Check: Duplicates

COMMENTS: Hardness, NO_2/NO_3, Ammonia, TOC, Sulfate, Conductance – all dup. spike % D acceptable – no results reported for othe analytes; other samples have shown no problems

ACTION: none

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

9113512.0824

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 04/24/91

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

WESTON BATCH #: 9103L104

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	BOOF53	Alkalinity	94.0	MG/L	2.0
		Chloride by IC	5.4	mg/L	0.25
		Fluoride by IC	0.80	mg/L	0.50
		Nitrite by IC	0.25 u J	mg/L	0.25
		Nitrate by IC	57.1 J	mg/L	2.5
		~~Cyanide, Total~~	330	UG/L	50.0
		Phosphate by IC	0.25 u J	mg/L	0.25
		Sulfate by IC	38.6	mg/L	2.5
		Hardness	136	MG/L	2.0
		Nitrate Nitrite	26.1	MG/L	10.0
		Ammonia, as N	0.10 u	MG/L	0.10
		Total Organic Carbon	0.80	MG/L	0.50
		pH	7.6	PH UNITS	0.01
		Sulfate	197	MG/L	50.0
		Specific Conductance	346	UMHOS/CM	1.0
		Total Dissolved Solids	290	MG/L	5.0

11/10/91

9713512.0825

Westinghouse
Hanford Company

OSM RCRA LEVEL 3 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	B00F87
B00F92	B00FB1	B00FH4
B00F98	B00FB2	B00F88
B00F99	B00FCB	B00F89
B00FS3	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.

54 7810 040

9713512.0826

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

9715512.0827

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			

9713512.0829

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

9713512.0830

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

9713512.0831

0000011

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/13/91

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

WESTON BATCH #: 0103L102

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

9713512.0832

0000012

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	uJ	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

9713512.0833

0000019

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	uJ	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

9713512.0834

0000020

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/13/91

CLIENT: WESTINGHOUSE HANFORD

WESTON BATCH #: 9103L103

WORK ORDER: 6168-02-01-0000

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	u	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

11/9/91

9713512.0835

0000025

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
-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

11/9/91

9713512.0836

0000026

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
-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

JJ 11/9/91

9713512.0857

0000031

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

11/9/91

9713512.0838

0000032

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

11/9/91

9713512.0839

0000033

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/13/91

CLIENT: WESTINGHOUSE HANFORD

WESTON BATCH #: 9103L117

WORK ORDER: 6168-02-01-0000

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

11/9/91

9713512.0840

0000037

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

JJ 11/9/91

9713512.0841

0000041

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

11/9/91

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

11/9/91

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0000043

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

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

9/15/91 0845

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	u	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

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

11/9/91

9715512.0847

OSM INORGANIC DATA ASSESSMENT

DATE 8.23.91

REVIEWED BY LK THOMPSON

LABORATORY WESTON

CASE #

SDG # RFW # 9103L101/103/104/117
9104L/145/186

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

JZ 10/9/91

9715512.0848

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

9713512.0849

INORGANIC QC - Blanks

LK

Name LK THOMPSON 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~~ LK 8.23.91

LK 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
B00FF3	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

9713512.0850

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			

9713512.0851

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
B00H3	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	1.30 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

9713512.0852

INORGANIC QC - Duplicate Analysis

Name LK THOMPSON 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

9713512.0853

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

9713512.0854

INORGANIC QC - Serial Dilution

Name LK THOMPSON Date 8.28.91

COMMENTS: B00F87 - ALL % D WITHIN QC CONTROL LIMITS EXCEPT Na and Mg.

ACTION: QUALIFY DATA VIA OSM GUIDELINES

sample #	constituent	value/qual	sample #	constituent	value/qual
~~B00FB7~~ all 10/9/91	Mg	~~12100~~ J 10/9/91			
	Na	~~32100~~ J			

9713512.0855

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

9716512.0856

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 & R CORRELATION ≤ .995 FOR Bo

ACTION: QUALIFY DATA VIA OSM GUIDELINES

sample #	constituent	value/qual
B00F91	As	6.3 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 p1
	Pb	2.0 UJ
	Se	1.3 J
	~~Tl~~	~~5.0~~ LRS
B00FB7	Pb	2.0 UJ
	~~Se~~	LRS
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

9713612.0857

INORGANIC QC - other

Name LK THOMPSON (4CT) Date 8.28.91

COMMENTS: ILLEGIBLE NUMERICAL VALUES ON FORM I FOR As FOR SAMPLES B00FB1, B00FB2 B00F C9, B00 F B7

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

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

U.S. EPA - CLP 0000059

92C592.0958

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:

FORM I - IN

0000060

U.S. EPA - CLP

9715512.0659

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

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~~ ~~*~~ 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	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				

LKJ 8.23.91

LKJ 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

UCJ 8.23.91

UCJ 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.

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:

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

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~~ UJ	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~~ UJ	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~~ UJ	F
7440-62-2	Vanadium	32.3	~~B~~	U	P
7440-66-6	Zinc	21.7	~~B~~		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:

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

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~~	~~WN~~ 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~~	~~WN~~ 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	~~WN~~ UJ	F
7440-62-2	Vanadium	32.9	~~B~~	U	P
7440-66-6	Zinc	17.6	~~B~~	U	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:

1

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~~	~~N~~ UJ	P
7440-38-2	Arsenic	3	~~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	~~N~~	~~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~~	N	P
7440-66-6	Zinc	23.9	~~N~~		P
	Cyanide	12.8	J		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

LH 8.21.91

LH 8.28.91

1

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~~	nJ	P
7440-38-2	Arsenic	0	~~B~~	~~N~~ J	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~~	~~N~~ 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~~ nJ	P
7439-92-1	Lead	2.00	U	~~W~~ nJ	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~~ nJ	F
7440-62-2	Vanadium	26.8	~~B~~	U	P
7440-66-6	Zinc	32.1	U		P
	Cyanide				

LKJ 8.23.91

LKJ 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.

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~~	UJ	P
7440-38-2	Arsenic	.90	~~B~~	~~N~~ 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~~	~~N~~ 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~~	~~N~~ UJ	P
7439-92-1	Lead	2.00	~~U~~	~~W~~ UJ	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~~ ~~N~~ UJ	F
7440-62-2	Vanadium	30.5	B		P
7440-66-6	Zinc	23.2			P
	Cyanide	13.9	J		C

LKS 8.23.91

LKS 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.

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~~	~~N~~ J	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~~ ~~N~~ J	F
7440-22-4	Silver	4.00	U		P
7440-23-5	Sodium	27700	J	E	P
7440-28-0	Thallium	5.00	U	~~N~~ 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:

1

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		~~E~~ 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		~~E~~ 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

LW 8.23.91

LW 8.28.91

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

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	~~*~~ 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~~	~~N~~ UJ	F
7440-62-2	Vanadium	36.5	~~B~~	U	P
7440-66-6	Zinc	4.20	~~B~~	U	P
	Cyanide				

LKY 8.23.91

LKY 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.

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:

1

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	U	P
7440-66-6	Zinc	4.60	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:

FORM I - IN

1

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~~	~~K~~ 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

LK 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		~~X~~ 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	~~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: