START 9613451.2077 9206L811-WES-621

0044590

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 06-26-92
RFW #: 9206L811, GC/MS VOLATILE
W.O. #: 6168-02-01

NARRATIVE

The set of samples consisted of two (2) water samples collected on 06-24-92.

The samples were analyzed according to criteria set forth in CLP SOW 02/88 (Rev. 05/89) for TCL Volatile target compounds on 07-02,03-92.

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

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

2. All surrogate recoveries were within EPA QC limits.

3. All blank spike recoveries were within EPA QC limits.

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

5. The laboratory blanks contained the common contaminants Methylene Chloride and Acetone at levels less than the CRQL.

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

Margaret M. Beaty for 7/28/92
Jack R. Tuschall, Ph.D. Date
Laboratory Manager
Lionville Analytical Laboratory

sma/voa/06-811v.cn

FEB 1996 RECEIVED EDMC

WESTON Analytics Use Only
9206L811

BOL: 2509868827-3 OPC: W92-0-0399-39 TASK #: 92-128

Custody Transfer Record/Lab Work Request

WESTON

Page 1 of 1

Client: Westinghouse Hanford Co.
Est. Final Proj. Sampling Date
Work Order #: 6168-02-01-0000
Project Contact/Phone #: P. H. Butcher (509) 376-5045
AD Project Manager: Joan Kuji
QC: CLP Del: CLP TAT: 35 days
Date Rec'd: 6-26-92 Date Due: 7-31-92
Account #: WS-HANFORD

Refrigerator #		1	5	5		4	4	4			1	1		SEB		4
#/Type Container	Liquid	SEE SPECIAL INSTRUCTIONS.														18
	Solid															
Volume	Liquid	SEE SPECIAL INSTRUCTIONS.														12
	Solid															
Preservatives		SEE SPECIAL INSTRUCTIONS.														Hno3

See Below

ANALYSES REQUESTED →

ORGANIC							INORG						
VOA	BNA	Pest/PCB	Herb		Anions TSS, TDS ALK.		Metal	CN	TOC	TOX		Radiochem	Diss. Metals

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

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	1 0624H	2 0624FH T	3 0608H		4 MISCTOW	4 Herbicide	5 TUMN FEAD			6 IOCT	7 ITOX		8 IGUB		9 MISCSOW
001	B06Q47			W	624	0815	✓	✓	✓		✓	✓	✓			✓	✓		✓		✓
002	B06Q48																				
003	B06Q49						✓														
	#4 = ANIONS = ICCl, ICFl, ICSO4, ICPO4, ICNO2, ICNO3 + ITDS, ITSS, IALKL																				
	Metals = HSL																				

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

DATE/REVISIONS:

Special Instructions: 1) 3, 40mL, aG; CLP-VOA. 2) ~~3, 2L, aG; SEMI-VOA, PCB/PEST.~~ 1. 3) 1, 1L, P; ICP/AA-METAL, Hg (HNO3) (UNFILTERED). 2. 4) 3, 1L, P; TDS, ANIONS, TSS, ALK. 5) 1, 1L, P; AMMONIA, COD (H2SO4). 3. 6) 1, 250mL, aG; TOC (~~INCLUDES BICARBONATE/CARBONATE~~) (H2SO4). 7) 1, 250mL, Gs; TOX (H2SO4). 8) 1, 1L, P; ~~GROSS~~ 4. ALPHA/BETA, GAMMA SCAN (HNO3). 9) 1, 1L, P; ICP/AA METALS, Hg (HNO3) (FILTERED). 5.

(1) MS/MSD Required.

7-2-92 6. Radiochem sched to Teledyne 7-1-92

WESTON Analytics Use Only

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

COC Tape was:
1) Present on Outer Package (Y) or N
2) Unbroken on Outer Package (Y) or N
3) Present on Sample (Y) or N
4) Unbroken on Sample (Y) or N

COC Record Present Upon Sample Rec't (Y) or N

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

Relinquished by	Received by	Date	Time
Emery	[signature] 6-26-92	6/26/92	12:30
	[signature] 6-29-92		

Relinquished by	Received by	Date	Time
	[signature] 6-29-92		

RFW 21-21-001/A-7/91 ___ L372 ___ L373 ___ L375 ___ L377 ___ L378 Ref# ___ Cooler# 80 Jom 381-596a

9613451.2078

9613452 WESTINGHOUSE

WESTON® RADIOACTIVE SAMPLE SHIPMENT EVALUATION

TRANSFERRED FROM LOGBOOK # 2826

RFW Batch # 92061811 ~~Initiated By/Date/Time:~~ CSP 30 JUN 92

Activity Rating*	Sample ID	Form (liq/sol)	RFW ID	Gamma Survey (microR/hr)	Alpha Survey (cpm)	Mass (g)	α + β activity		Tritium	
							nCi/g	nCi	nCi/g	nCi
1	B06Q47	LIQ	001	6	0	N/A	<0.005	N/A	N/A	N/A

CSP 30 JUN 92

*Activity Rating: (per lab NRC License)
1 Not Radioactive
2 Radioactive
3 Too Radioactive to Handle at Lab

Comments:

Completed By/Date/Time: CHARLES S PIPER 30JUN92 9:15

Reviewed By/Date:

RFW 21-21-013/A-04/92

Logbook # 2894, Page 7

A B

9613451.2080

0000004

Westinghouse Hanford Company	CHAIN OF CUSTODY 9206L811

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Project Designation/Sampling Locations 200AAMS

Ice Chest No. 80 Jem

Bill of Lading/Airbill No. 250986827-3

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date 6-29-92

Field Logbook No. EFL-1032

Offsite Property No. W92-0-0399-39

Sample Identification

B06Q47

3, 40ml, aG, WATER, CLP-VOA
3, 2L, aG, WATER, SEMI-VOA, PCB/PEST
1, 1L, P, WATER, ICP/AA-METAL & Hg (HNO3) UNFILTERED
3, 1L, P, WATER, TDS, ANIONS, TSS, ALK
1, 1L, P, WATER, AMMONIA, COD (H2SO4)
1, 250ml, aG, WATER, TOC(INCLUDES BICARBONATE/CARBONATE (H2SO4)
1, 250ml, Gs, WATER, TOX (H2SO4)
1, 1L, P, WATER, GROSS ALPHA/BETA, GAMMA SCAN (HNO3)

B06Q48

1, 1L, P, WATER, ICP/AA METAL & Hg (HNO3) (FILTERED)

B06Q49

3, 40 ml, WATER, CLP-VOA

[] Field Transfer of Custody

Chain of Possession (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
C. Celiberti C. CELIBERTI	Rebrid	6/24/92 1723
Relinquished by:	Received by:	Date/Time:
	Rice Whitten B WHITTEN	6-25-92 07:30
Relinquished by:	Received by:	Date/Time:
Rice Whitten B WHITTEN		
Relinquished by:	Received by:	Date/Time:
Emery	Jack Lilliagan	6/26/92 ~~09~~ 12:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613451.2001

0000005

9206L811

FORM OF PAYMENT

Check ☐ GBL ☐ FCCOD ☐

Bill to Shipper ☒ Bill to Consignee ☐ Third Party Billing ☐

EMERY WORLDWIDE

A CF Company

SERVICES

UNITED STATES / CANADA: ☐ Same Day ☐ AM ☐ PM ☐ Second Day ☐ Saturday Delivery

INTERNATIONAL: Express ☐ Preferred ☐ Standard ☐ Business Documents Customs Clearance Delivery

Shipper's Account Number: 850281585

Date: [illegible] Origin: PSC Shipment Number: 250986827

From: WESTINGHOUSE SHIPPING DEPT (509) 376-6665
U.S. DEPARTMENT OF ENERGY C/O
WESTINGHOUSE HANFORD
BLDG 1163
2355 STEVENS DRIVE
RICHLAND WA

To: JOSIE KING 06-25-92
rf weston inc
208 WELSH POOL ROAD
LIONVILLE PA

Tariff Dest. Gate

Shipper $

Hold for Pick Up ☐ Canada ☐

EMERY WORLDWIDE will accept Consignee check with all risks being assumed by Shipper, including but not limited to non-payment, fraud and misrepresentation

Customer's Reference Numbers: 31232 PB23B W92-0-0399-39 99352

E Consignee's Account Number: 19341

Description: ~~VERNIGHT DELIVERY~~ ~~IGNATURE SECURITY SERVICE~~ ~~OOLER, SAMPLES, ID#80-JEM~~

Dimensions: Pcs. 1 L 11 W 14 H 17

Total Pieces: 1 Total Weight (In Lbs): 72

FOR INFORMATION OR RATES CALL 1-800 44 EMERY (1-800-443-6379)

Declared Value $

2509868273

Remarks: VERNIGHT DELIVERY
IGNATURE SECURITY SERVIC

Zip Ship ☐ For shipments within the 50 United States Shipper has the option to check this box and, by checking, agrees that the Zip Ship conditions, described in the area to the right, apply.

Mark if Emery Packaging is used: Urgent Letter 9X12 ☒ Urgent Pack 12X15 ☒

Shipper's Signature X

International Shipments: Free Domicile ☒ Commodity Code

Third Party Account Number mandatory for Third Party Billing. E Third Party Account Number

International Customs Value International Insurance

Total Transportation Charges

Other Charges/Advance at Origin ☐ OC/AO- $

Use Charge

3-PhL-A

Terms and Conditions on Back

EMERY WORLDWIDE A CF Company 9206L811

SIGNATURE AND TALLY RECORD

60029-46 (8/89) Litho USA

DATE: 6/25/92 SHIPMENT NO.: 2509868273
SHIPPER: WESTINGHOUSE SHIPPING DEPT (509) 37
REFERENCE NO.: W92-0-0399-39

SHIPPER NAME AND ADDRESS
WESTINGHOUSE SHIPPING DEPT (509) 376-6665
G2-06 U.S. DEPARTMENT OF ENERGY C/O
WESTINGHOUSE HANFORD COMPANY
2355 STEVENS DRIVE 1163 BUILDING
PO BOX 1970
RICHLAND WA 99352

CONSIGNEE NAME AND ADDRESS
JOSIE KING
RF WESTON INC
208 WELSH POOL ROAD
LIONVILLE PA 19341

W92-0-0399-39

Pieces	Weight	Description/Marks	Emery Authorization No.
1	72	1 POLYCOOLER WITH GROUND-WATER SAMPLES, COOLER ID# 80-JEM	

EACH PERSON HANDLING OR TAKING CUSTODY OF THIS SHIPMENT MUST SIGN AND COMPLETE THE INFORMATION BELOW

	Name of Person/Company	Transship Point/Destination	Signature of Person Accepting Custody	Time/Da
1.				
2.				
3.	[illegible]	[illegible]	[illegible]	[illegible]
4.	[illegible]	[illegible]	[illegible]	[illegible]
5.				
6.	[illegible]	PHL	[illegible]	10-[illegible]
7.	[illegible]	[illegible]	[illegible]	[illegible]
8.	[illegible]			6/26/92

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

Report Date: 07/10/92 02:14

RFW Batch Number: 9206L811 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Page: 1a

	Cust ID:	BO6Q47		BO6Q47		BO6Q47		BO6Q49		VBLK		VBLK BS	
Sample Information	RFW#:	001		001 MS		001 MSD		003		92LVW131-MB1		92LVW131-MB1	
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	D.F.:	1.00		1.00		1.00		1.00		1.00		1.00	
	Units:	ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
	Toluene-d8	101	%	96	%	97	%	97	%	101	%	95	%
Surrogate	Bromofluorobenzene	101	%	97	%	99	%	102	%	106	%	97	%
Recovery	1,2-Dichloroethane-d4	96	%	98	%	96	%	99	%	79	%	88	%
			fl		fl		fl		fl		fl		fl
Chloromethane		10	U	10	U	10	U	10	U	10	U	10	U
Bromomethane		10	U	10	U	10	U	10	U	10	U	10	U
Vinyl Chloride		10	U	10	U	10	U	10	U	10	U	10	U
Chloroethane		10	U	10	U	10	U	10	U	10	U	10	U
Methylene Chloride		5	U	3	JB	3	JB	5	B	2	J	7	B
Acetone		10	U	10	U	10	U	3	JB	2	J	10	U
Carbon Disulfide		5	U	5	U	5	U	5	U	5	U	5	U
1,1-Dichloroethene		5	U	104	%	105	%	5	U	5	U	102	%
1,1-Dichloroethane		5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dichloroethene (total)		5	U	5	U	5	U	5	U	5	U	5	U
Chloroform		5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dichloroethane		5	U	5	U	5	U	5	U	5	U	5	U
2-Butanone		10	U	10	U	10	U	10	U	10	U	10	U
1,1,1-Trichloroethane		5	U	5	U	5	U	5	U	5	U	5	U
Carbon Tetrachloride		5	U	5	U	5	U	5	U	5	U	5	U
Vinyl Acetate		10	U	10	U	10	U	10	U	10	U	10	U
Bromodichloromethane		5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dichloropropane		5	U	5	U	5	U	5	U	5	U	5	U
cis-1,3-Dichloropropene		5	U	5	U	5	U	5	U	5	U	5	U
Trichloroethene		5	U	109	%	109	%	5	U	5	U	107	%
Dibromochloromethane		5	U	5	U	5	U	5	U	5	U	5	U
1,1,2-Trichloroethane		5	U	5	U	5	U	5	U	5	U	5	U
Benzene		5	U	103	%	105	%	5	U	5	U	102	%
Trans-1,3-Dichloropropene		5	U	5	U	5	U	5	U	5	U	5	U
Bromoform		5	U	5	U	5	U	5	U	5	U	5	U
4-Methyl-2-pentanone		10	U	10	U	10	U	10	U	10	U	10	U
2-Hexanone		10	U	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene		5	U	5	U	5	U	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane		5	U	5	U	5	U	5	U	5	U	5	U

*= Outside of EPA CLP QC limits.

9613451.2082

RFW Batch Number: 9206L811 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Page: 1b

Cust ID:	B06Q47		B06Q47		B06Q47		B06Q49		VBLK		VBLK BS	
RFW#:	001		001 MS		001 MSD		003		92LVW131-MB1		92LVW131-MB1	
Toluene	5	U	106	%	107	%	5	U	5	U	107	%
Chlorobenzene	5	U	106	%	107	%	5	U	5	U	106	%
Ethylbenzene	5	U	5	U	5	U	5	U	5	U	5	U
Styrene	5	U	5	U	5	U	5	U	5	U	5	U
Xylene (total)	5	U	5	U	5	U	5	U	5	U	5	U

*= Outside of EPA CLP QC limits.

96345.2083 000008

9613451.2084

1A

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B06Q47

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9206L811-001

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

Lab File ID: W070305

Level: (low/med) LOW

Date Received: 06/26/92

% Moisture: not dec. _____

Date Analyzed: 07/03/92

Column: (pack/cap) PACK

Dilution Factor: 1.00

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

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

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B06Q47

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9206L811-001

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

Lab File ID: W070305

Level: (low/med) LOW

Date Received: 06/26/92

% Moisture: not dec. _____

Date Analyzed: 07/03/92

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

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

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

9613451.2086

1A

VOLATILE ORGANICS ANALYSIS SHEET 000033

CLIENT SAMPLE NO.

B06Q49

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9206L811-003

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

Lab File ID: W070221

Level: (low/med) LOW

Date Received: 06/26/92

% Moisture: not dec. _____

Date Analyzed: 07/02/92

Column: (pack/cap) PACK

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	B
67-64-1	Acetone	3	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

9613451.2087

1E

000037

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B06Q49

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9206L811-003

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

Lab File ID: W070221

Level: (low/med) LOW

Date Received: 06/26/92

% Moisture: not dec. _____

Date Analyzed: 07/02/92

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

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

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

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

Report Date: 08/03/92 09:46

RFW Batch Number: 9206L811 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Page: 1a

	Cust ID:	BO6Q47	BO6Q47	BO6Q47	SBLK	SBLK BS
Sample Information	RFW#:	001	001 MS	001 MSD	92LE0957-MB1	92LE0957-MB1
	Matrix:	WATER	WATER	WATER	WATER	WATER
	D.F.:	1.00	1.00	1.00	1.00	1.00
	Units:	ug/L	ug/L	ug/L	ug/L	ug/L
Surrogate Recovery	Nitrobenzene-d5	59 %	59 %	64 %	81 %	77 %
	2-Fluorobiphenyl	99 %	87 %	83 %	91 %	98 %
	p-Terphenyl-d14	151 * %	124 %	113 %	119 %	126 %
	Phenol-d5	33 %	33 %	38 %	42 %	39 %
	2-Fluorophenol	54 %	51 %	59 %	64 %	55 %
	2,4,6-Tribromophenol	145 * %	125 * %	118 %	109 %	117 %
		fl	fl	fl	fl	fl
Phenol		10 U	31 %	39 %	10 U	38 %
bis(2-Chloroethyl)ether		10 U	10 U	10 U	10 U	10 U
2-Chlorophenol		10 U	69 %	77 %	10 U	72 %
1,3-Dichlorobenzene		10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene		10 U	65 %	68 %	10 U	78 %
Benzyl alcohol		10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene		10 U	10 U	10 U	10 U	10 U
2-Methylphenol		10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)ether		10 U	10 U	10 U	10 U	10 U
4-Methylphenol		10 U	10 U	10 U	10 U	10 U
N-Nitroso-Di-n-propylamine		10 U	62 %	70 %	10 U	93 %
Hexachloroethane		10 U	10 U	10 U	10 U	10 U
Nitrobenzene		10 U	10 U	10 U	10 U	10 U
Isophorone		10 U	10 U	10 U	10 U	10 U
2-Nitrophenol		10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol		10 U	10 U	10 U	10 U	10 U
Benzoic acid		50 U	50 U	50 U	50 U	50 U
bis(2-Chloroethoxy)methane		10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol		10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene		10 U	73 %	73 %	10 U	78 %
Naphthalene		10 U	10 U	10 U	10 U	10 U
4-Chloroaniline		10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene		10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol		10 U	84 %	88 %	10 U	88 %
2-Methylnaphthalene		10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene		10 U	10 U	10 U	10 U	10 U

*= Outside of EPA CLP QC limits.

9613451.2088

0000008

Cust ID:	BO6Q47		BO6Q47		BO6Q47		SBLK		SBLK BS	
RFW#:	001		001 MS		001 MSD		92LE0957-MB1		92LE0957-MB1	
2,4,6-Trichlorophenol	10	U	10	U	10	U	10	U	10	U
2,4,5-Trichlorophenol	50	U	50	U	50	U	50	U	50	U
2-Chloronaphthalene	10	U	10	U	10	U	10	U	10	U
2-Nitroaniline	50	U	50	U	50	U	50	U	50	U
Dimethylphthalate	10	U	10	U	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U	10	U	10	U
3-Nitroaniline	50	U	50	U	50	U	50	U	50	U
Acenaphthene	10	U	92	%	89	%	10	U	102	%
2,4-Dinitrophenol	50	U	50	U	50	U	50	U	50	U
4-Nitrophenol	50	U	31	%	44	%	50	U	40	%
Dibenzofuran	10	U	10	U	10	U	10	U	10	U
2,4-Dinitrotoluene	10	U	116 *	%	107 *	%	10	U	124 *	%
Diethylphthalate	10	U	10	U	10	U	10	U	10	U
4-Chlorophenyl-phenylether	10	U	10	U	10	U	10	U	10	U
Fluorene	10	U	10	U	10	U	10	U	10	U
4-Nitroaniline	50	U	50	U	50	U	50	U	50	U
4,6-Dinitro-2-methylphenol	50	U	50	U	50	U	50	U	50	U
N-Nitrosodiphenylamine (1)	10	U	10	U	10	U	10	U	10	U
4-Bromophenyl-phenylether	10	U	10	U	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U	10	U	10	U
Pentachlorophenol	50	U	88	%	95	%	50	U	127 *	%
Phenanthrene	10	U	10	U	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U	10	U	10	U
Di-n-Butylphthalate	1	JB	3	JB	2	JB	2	J	2	JB
Fluoranthene	10	U	10	U	10	U	10	U	10	U
Pyrene	10	U	158 *	%	145 *	%	10	U	154 *	%
Butylbenzylphthalate	10	U	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	20	U	20	U	20	U
Benzo(a)anthracene	10	U	10	U	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U	10	U	10	U
bis(2-Ethylhexyl)phthalate	17	B	46	B	24	B	21		35	B
Di-n-Octyl phthalate	10	U	10	U	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	10	U	10	U	10	U

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

9613451.2089 000009

9613451.2090

0000011

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 06-26-92
RFW #: 9206L811, SEMIVOLATILE
W.O. #: 6168-02-01

NARRATIVE

One (1) water sample was collected on 06-24-92.

The sample and its associated QC samples were extracted on 06-30-92 and analyzed according to criteria set forth in CLP SOW 02/88 (Rev. 05/89) for TCL Semivolatile target compounds on 07-22-92.

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

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

2. Three (3) of thirty (30) surrogate recoveries were outside EPA QC limits; however, EPA CLP surrogate recovery criteria were met [i.e., no more than one outlier per fraction (acid and base neutral) and no recoveries less than 10%].

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

4. Three (3) of eleven (11) blank spike recoveries were outside EPA QC limits.

5. The laboratory blank 92LE0957-MB1 contained the common contaminants Di-n-butylphthalate and Bis(2-ethylhexyl)phthalate at levels less than 3X the CRQL.

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

Margaret M. Beaty for 8/13/92
Jack R. Tuschall, Ph.D. Date
Laboratory Manager
Lionville Analytical Laboratory

kls/06-811b.cn

9613451.2091

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 0000027

CLIENT SAMPLE NO.

B06Q47

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 9206L811-001

Sample wt/vol: 990 (g/mL) ML Lab File ID: L072115

Level: (low/med) LOW Date Received: 06/26/92

% Moisture: not dec. _____ dec. Date Extracted: 06/30/92

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/22/92

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

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

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

9613451.2092

1C

0000028

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B06Q47

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9206L811-001

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

Lab File ID: L072115

Level: (low/med) LOW

Date Received: 06/26/92

% Moisture: not dec. _____ dec.

Date Extracted: 06/30/92

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 07/22/92

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

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	1	JB
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	17	B
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

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1F

0000029

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B06Q47

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9206L811-001

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

Lab File ID: L072115

Level: (low/med) LOW

Date Received: 06/26/92

% Moisture: not dec. _____ dec.

Date Extracted: 06/30/92

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 07/22/92

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.	UNKNOWN	24.15	10	BJ

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

RFW Batch Number: 9206L811 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 08/06/92 10:44 Page: 1

	Cust ID:	B06Q47		B06Q47		B06Q47		PBLK		PBLK BS	
Sample Information	RFW#:	001		001 MS		001 MSD		92LE0959-MB1		92LE0959-MB1	
	Matrix:	WATER		WATER		WATER		WATER		WATER	
	D.F.:	1.00		2.00		2.00		1.00		2.00	
	Units:	ug/L		ug/L		ug/L		ug/L		ug/L	
Surrogate: Di-n-butylchlorendate		56	%	85	%	89	%	94	%	96	%
Alpha-BHC		0.050	U	0.20	U	0.20	U	0.050	U	0.10	U
Beta-BHC		0.050	U	0.20	U	0.20	U	0.050	U	0.10	U
Delta-BHC		0.050	U	0.20	U	0.20	U	0.050	U	0.10	U
gamma-BHC (Lindane)		0.050	U	60	%	65	%	0.050	U	65	%
Heptachlor		0.050	U	65	%	70	%	0.050	U	70	%
Aldrin		0.050	U	60	%	65	%	0.050	U	70	%
Heptachlor epoxide		0.050	U	0.20	U	0.20	U	0.050	U	0.10	U
Endosulfan I		0.050	U	0.20	U	0.20	U	0.050	U	0.10	U
Dieldrin		0.10	U	66	%	78	%	0.10	U	72	%
4,4'-DDE		0.10	U	0.40	U	0.40	U	0.10	U	0.20	U
Endrin		0.10	U	62	%	72	%	0.10	U	68	%
Endosulfan II		0.10	U	0.40	U	0.40	U	0.10	U	0.20	U
4,4'-DDD		0.10	U	0.40	U	0.40	U	0.10	U	0.20	U
Endosulfan sulfate		0.10	U	0.40	U	0.40	U	0.10	U	0.20	U
4,4'-DDT		0.10	U	62	%	70	%	0.10	U	74	%
Methoxychlor		0.50	U	2.0	U	2.0	U	0.50	U	1.0	U
Endrin ketone		0.10	U	0.40	U	0.40	U	0.10	U	0.20	U
alpha-Chlordane		0.50	U	2.0	U	2.0	U	0.50	U	1.0	U
gamma-Chlordane		0.50	U	2.0	U	2.0	U	0.50	U	1.0	U
Toxaphene		1.0	U	4.0	U	4.0	U	1.0	U	2.0	U
Aroclor-1016		0.50	U	2.0	U	2.0	U	0.50	U	1.0	U
Aroclor-1221		0.50	U	2.0	U	2.0	U	0.50	U	1.0	U
Aroclor-1232		0.50	U	2.0	U	2.0	U	0.50	U	1.0	U
Aroclor-1242		0.50	U	2.0	U	2.0	U	0.50	U	1.0	U
Aroclor-1248		0.50	U	2.0	U	2.0	U	0.50	U	1.0	U
Aroclor-1254		1.0	U	4.0	U	4.0	U	1.0	U	2.0	U
Aroclor-1260		1.0	U	4.0	U	4.0	U	1.0	U	2.0	U

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

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000010

9613451.2095 11A

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 06-26-92
RFW #: 9206L811, PEST/PCB
W.O. #: 6168-02-01

NARRATIVE

One (1) water sample was collected on 06-24-92.

The sample and its associated QC samples were extracted on 06-30-92 and analyzed according to criteria set forth in the Contract Laboratory Program for Pesticide and PCB target compounds on 07-21-92.

A modification to the Contract Laboratory Program 02/88 was initiated to include surrogate requirements from Method SW 846. Tetrachloro-m-xylene (TCX) is an early eluting compound which is an additional surrogate added to sample extracts and will be reported when there is an interference with Di-n-butylchlorendate (DBC).

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

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

2. Continuing calibration criteria were exceeded prior to sample extracts for several target compounds for standards analyzed on the SP2100 column on 07-20-92 at 10:27 and 11:19 and on 07-21-92 at 00:03.

   Column maintenance was performed. The appropriate calibration criteria were achieved for all compounds requiring quantitation and confirmation analysis.

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

4. All surrogate recoveries were within EPA QC limits.

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

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

WESTON
MANAGERS DESIGNERS/CONSULTANTS

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

Margaret M. Beaty for 8/13/92
Jack R. Tuschall, Ph.D. Date
Laboratory Manager
Lionville Analytical Laboratory

sma/pcb/06-811pp.cn

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1D

PESTICIDE ORGANICS ANALYSIS SHEET

000019 CLIENT SAMPLE NO.

B06Q47

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 9206L811-001

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 07199203.50

Level: (low/med) LOW Date Received: 06/26/92

% Moisture: not dec. _____ dec. Date Extracted: 06/30/92

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 07/21/92

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

DER 8/5/92

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ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLE(S) RECEIVED:** 06-26-92
RFW #: 9206L811
W.O. #: 6168-02-01

INORGANIC NARRATIVE

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

1. Sample holding times as required by 40CFR136 were met with the exception of Nitrite by IC, Nitrate by IC and Phosphate by IC which were all recieved past hold.

2. All preparation blank results were below the required detection limit.

3. All laboratory control standards (blank spikes) were within the control limits of 80-120%. All %RPD were within the 20% guidance limit.

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

5. Matrix spike recoveries are summarized on the Inorganic Accuracy Report contained within this document. All recoveries were within the 75-125% guidance limits. All %RPD were within the 20% guidance limit.

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

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

Jack R. Tuschall / 07.29.92
Jack R. Tuschall, Ph.D. Date
Laboratory Manager
Lionville Analytical Laboratory

AUG 1992 RECEIVED

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ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 07/17/92

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

WESTON BATCH #: 9206L811

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	BO6Q47	Alkalinity	135	MG/L	2.0
		Chloride by IC	33.9	MG/L	5.0
		Fluoride by IC	0.50 u	MG/L	0.50
		Nitrite by IC	0.25 u	MG/L	0.25
		Nitrate by IC	0.64	MG/L	0.25
		Chemical Oxygen Demand	6.6	MG/L	5.0
		Phosphate by IC	0.25 u	MG/L	0.25
		Sulfate by IC	6.3	MG/L	0.25
		Ammonia, as N	0.10 u	MG/L	0.10
		Total Organic Carbon	1.1	MG/L	0.50
		Total Dissolved Solids	263	MG/L	5.0
		Total Organic Halides	20.0 u	UG/L	20.0
		Total Suspended Solids	9.0	MG/L	5.0

Roy F. Weston, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD CO. **SAMPLES RECEIVED:** 06-26-92
RFW #: 9206L811
W.O. #: 6168-02-01

METALS NARRATIVE

The set of samples consisted of two (2) water samples collected on 06-24-92.

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

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

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

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

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

4. All preparation blank values were within control limits.

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

6. All matrix spike recoveries were within the 75-125% control limits with the exception of lead and silver. All exceptions are flagged with a "N" on the CLP forms.

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

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

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

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10. Quarterly Detection Limits, ICP Interelement Correction Factors and ICP Linear Ranges for IC3 are included in this package, but do not appear on EDD.

11. The graphite furnace time that appears on form XIV is the time of the first injection. The time that appears on the data is the print time.

Margaret M. Beaty for

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

8/3/92
Date

mlj\ clp-met.nar

ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 07/30/92

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

WESTON BATCH #: 9206L811

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-001	BO6Q47	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
		Calcium, Total	34800		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	690		UG/L	100
		Mercury, Total	0.20	u	UG/L	0.20
		Potassium, Total	6640		UG/L	5000
		Magnesium, Total	11700		UG/L	5000
		Manganese, Total	15.0	u	UG/L	15.0
		Sodium, Total	20200		UG/L	5000
		Nickel, Total	43.7		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
		Thallium, Total	10.0	u	UG/L	10.0
		Vanadium, Total	50.0	u	UG/L	50.0
		Zinc, Total	29.1		UG/L	20.0

9613451.2103

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ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 07/30/92

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

WESTON BATCH #: 9206L811

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-002	BO6Q48	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
		Calcium, Soluble	33400		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	6660		UG/L	5000
		Magnesium, Soluble	11300		UG/L	5000
		Manganese, Soluble	15.0	u	UG/L	15.0
		Sodium, Soluble	19600		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
		Thallium, Soluble	10.0	u	UG/L	10.0
		Vanadium, Soluble	50.0	u	UG/L	50.0
		Zinc, Soluble	25.9		UG/L	20.0

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06Q47

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP811

Matrix (soil/water): WATER Lab Sample ID: 920681101

Level (low/med): LOW Date Received: 6/26/92

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	105.00	B		P
7440-36-0	Antimony	44.00	U		P
7440-38-2	Arsenic	2.30	B		F
7440-39-3	Barium	81.30	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.60	B		P
7440-70-2	Calcium	34800.00			P
7440-47-3	Chromium	9.30	B		P
7440-48-4	Cobalt	6.00	U		P
7440-50-8	Copper	5.00	U		P
7439-89-6	Iron	690.00			P
7439-92-1	Lead	2.00	U	NW	F
7439-95-4	Magnesium	11700.00			P
7439-96-5	Manganese	10.00	B		P
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel	43.70			P
7440-09-7	Potassium	6640.00			P
7782-49-2	Selenium	2.00	U		F
7440-22-4	Silver	6.00	U	N	P
7440-23-5	Sodium	20200.00			P
7440-28-0	Thallium	2.00	U		F
7440-62-2	Vanadium	25.10	B		P
7440-66-6	Zinc	29.10			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06Q48

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP811

Matrix (soil/water): WATER Lab Sample ID: 920681102

Level (low/med): LOW Date Received: 6/26/92

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	35.00	U		P
7440-36-0	Antimony	44.00	U		P
7440-38-2	Arsenic	2.00	U		F
7440-39-3	Barium	75.00	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	33400.00			P
7440-47-3	Chromium	8.00	U		P
7440-48-4	Cobalt	6.00	U		P
7440-50-8	Copper	5.00	U		P
7439-89-6	Iron	25.40	B		P
7439-92-1	Lead	2.00	U	NW	F
7439-95-4	Magnesium	11300.00			P
7439-96-5	Manganese	2.70	B		P
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel	35.20	B		P
7440-09-7	Potassium	6660.00			P
7782-49-2	Selenium	2.00	U		F
7440-22-4	Silver	6.00	U	N	P
7440-23-5	Sodium	19600.00			P
7440-28-0	Thallium	2.00	U		F
7440-62-2	Vanadium	24.00	B		P
7440-66-6	Zinc	25.90			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments: