START 9613427.1640 0000013 9208L666-WES-836 0043876 50 2

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLE(S) RECEIVED:** 08-28-92
RFW #: 9208L666, GC/MS VOLATILE
W.O. #: 6168-02-01

NARRATIVE

The set of samples consisted of four (4) water samples collected on 08-26-92.

The samples were analyzed according to criteria set forth in CLP SOW 03/90 for TCL Volatile target compounds on 09-02,03-92.

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 system monitoring compound (surrogate) recoveries were within EPA QC limits.

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

4. The target compounds flagged "JB" in sample B06WD9 were determined to be low-level laboratory contamination. If these compounds were present in the sample, the amount detected would be below the reported level.

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

FEB 1996

10.13.92
Date

J. Peter Hershey, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

sma/voa/08-666v.cn

WESTON Analytics Use Only

9208L666

Custody Transfer Record/Lab Work Request

WESTON

Page 1 of 1

Client: Westinghouse Hanford
Est. Final Proj. Sampling Date:
Work Order #: 6168-02-01-0000
Project Contact/Phone #:
AD Project Manager: Jackie King
QC: clp Del: clp TAT: 35 days
Date Rec'd: 8/28/92 Date Due: 10-2-92
Account #: WS-Hanford

Refrigerator #		1	6	6		1	1	SUB	3		3	1	3				3
#/Type Container	Liquid	3G	2AG	1AG		1AG	1AG	1P	1P		3P	1	1P				1P
	Solid																
Volume	Liquid	40	950	950		250	250	1L	1L		1L	1L	1L				1L
	Solid																
Preservatives		–	–	–		HNO3	HNO3	HNO3	HNO3		none	–	HNO3				HNO3

ANALYSES REQUESTED →

ORGANIC				INORG							
VOA	BNA	Pest/PCB	Herb	TOC	TOX	Purgeable Halocarbons	Metal	CN	Anions	TSS TDS ALK	NH3N COD	Quick Metals

WESTON Analytics Use Only

MATRIX CODES:		Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	8624H	8625H	8081H		TOCT	TTOX	TSUB	MHS1TOW		Ion Pkd	TBS TDS TALK	NH3N COD			MHS5OW
S - Soil		001	B06PY1			W	8/26/92	07:30	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓			
SE - Sediment		002	Y2																				✓
SO - Solid		003	Y3						✓														
SL - Sludge		004	B06WD9					12:10	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓			
W - Water		005	FQ																				✓
O - Oil		006	F1						✓														
A - Air																							
DS - Drum Solids																							
DL - Drum Liquids																							
L - EP/TCLP Leachate																							
WI - Wipe																							
X - Other			Anions = IC Cl, IC Fl, IC SO4, IC PO4, IC NO2, IC NO3																				
F - Fish																							

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions: Project 200 AAMS
Dmc/MSD required
metals = HSL
Radiochem = Gross alpha/Beta, Gamma Scan
Original Receipts

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

WESTON Analytics Use Only

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

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

COC Record Present Upon Sample Rec't Y or N

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

Relinquished by	Received by	Date	Time
Emery	[illegible]	8/28/92	8:00 ~~14:00~~

Relinquished by	Received by	Date	Time
	[illegible]	8-28-92	

RFW 21-21-001/A-7/91 ___ L372 ___ L373 ___ L375 ___ L377 ___ L378 Ref# — Cooler# SM L-157 SML-157 381-596a

000002

9208L666

FORM OF PAYMENT

Check ☐ GBL ☐ COD ☐ Bill to Consignee ☐ Third Party Billing ☐

Shipper's Account Number: 150281585

9208L666

EMERY WORLDWIDE

SERVICES: UNITED STATES / CANADA: Same Day ☐ AM ☐ PM ☐ Saturday Delivery ☐ Second Day ☐ INTERNATIONAL: Express ☐ Priority ☐ Standard ☐ Business Documents ☐ Customs Clearance ☐ Delivery ☐

Date: 08-27-92 Origin: PSC Shipment Number: 250987018

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

To: JOSIE
RF WESTON
208 WELSH POOL ROAD
LIONVILLE PA Canada ☐ Hold for Pick Up ☐

Tariff Dest. Gateway

Charges Shipper $

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: 1232 PB23B W92-0-0575#18 99352

Consignee's Account Number: E 19341

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

Declared Value $

Description	Pcs.	L	W	H	Total Pieces	Total Weight
COOLER ID: SML-157 66# L197 72# TER SAMPLES	2				2	138

250987018 7

Remarks: ERNIGHT DELIVERY
GNATURE SECURITY SERVICE

Shipper's Signature X

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 ☐

International Shipments: Free Domicile ☐ Commodity Code

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

International Customs Value | International Insurance

Charge

Total Transportation Charges | Other Charges/Advance at Origin OC/AO- $

3PHL A

Terms and Conditions on Back

EMERY WORLDWIDE A CR Company

9208L666

SIGNATURE AND TALLY RECORD

60029-46 (8/89) Litho USA

DATE: 08-27-92 SHIPMENT NO.: 250987018 7
SHIPPER: WESTINGHOUSE SHIPPING DEPT (509) 376-666
REFERENCE NO.: W92-0-0575#18

SHIPPER NAME AND ADDRESS
WESTINGHOUSE SHIPPING DEPT (509) 376-6665
62-06 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
RF WESTON INC
208 WELSH POOL ROAD
LIONVILLE PA 19341

JOSIE KING

Pieces	Weight	Description/Marks	Emery Authorization No.
2	138 LBS	COOLER ID: SML 157 66# SML 197 72# WATER SAMPLES	

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/Date
1.				
2.				
3.				
4.				
5.				
6.				8/28/92 2:39
7.				

9613427.1643 0000003 9208L666

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Project Designation/Sampling Locations 200AAMS

Ice Chest No. GML-197

Bill of Lading/Airbill No. 2500970198-7

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date ~~8/25/92~~ 8/26/92

Field Logbook No. EFL-1032

Offsite Property No. W92-0-0575-19

Sample Identification

B06PY1
- 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)

B06PY2
- 1, 1L, P, WATER, ICP/AA METAL & Hg (HNO3) (FILTERED)

B06PY3
- 3, 40 ml, WATER, CLP-VOA

[] Field Transfer of Custody — Chain of Possession — (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
L.D. Walker / LD Walker	K Trapp / K Trapp	8/27/92 09:50
K Trapp / K Trapp		
Emery	[signature]	8/28/92 14:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

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

9613427.1644 0000004

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. D. Lee/L. D. Walker Date Sampled 8/26/92 Time 0730 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
BOG-PV1	3, 40ml, Gs	W	CLP-VOA
	3, 2L, aG	W	SEMI-VOA, PCB/PEST
	1, 1L, P	W	ICP/AA METAL & Hg, (HNO3) UNFILTERED
	3, 1L, P	W	TDS, ANIONS, TSS, ALK
	1, 1L, P	W	AMMONIA, COD (H2SO4)
	1, 250ml, aG	W	TOC (INCLUDES BICARBONATE/CARBONATE) (H2SO4)
	1, 250ml, Gs	W	TOX (H2SO4)
✓	1, 1L, P	W	GROSS ALPHA/BETA, GAMMA SCAN (HNO3)
BOG-PV2	1, 1L, P	W	ICP/AA METAL & Hg (HNO3) FILTERED
BOG-PV3	3, 40ml, Gs	W	CLP-VOA

Field Information** OPC: WA2-0-0575-18
FCL: 250487018-7
Task: 92-128

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Title Date

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location

A-6000-406 (05/9

9613427.1645 0000005

Westinghouse Hanford Company

CHAIN OF CUSTODY

92084 6W6

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 200AAMS

Collection Date 8-26-92

Ice Chest No. ML-157

Field Logbook No. EFL-1032

Bill of Lading/Airbill No. 2509570018-7

Offsite Property No. W92-0-0575-18

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Sample Identification

BO~~[illegible]~~ 6WD9 LW 8-26-92

3, 40ml, aG, WATER, CLP-VOA

2 ~~3~~, 2L, aG, WATER, SEMI-VOA, PCB/PEST

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

3, 1L, P, WATER, TDS, ~~BOD, DISOLVED OXYGEN~~, ANIONS, TSS, ALK

1, 1L, P, WATER, AMMONIA, COD (H2SO4) HSH 8/5/92

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)

BO~~[illegible]~~ 6WF0 LW 8-26-92

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

BO~~[illegible]~~ 6WF1 LW 8-26-92

3, 40 ml, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker LD Walker	Received by: K. Trapp / K. Trapp	Date/Time: KT ~~8/26/92~~ 8/27/92 0950
Relinquished by: K. Trapp / K. Trapp	Received by:	Date/Time:
Relinquished by: Emery	Received by: [illegible]	Date/Time: 8/28/92 1430
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

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

9613427.1646 0000008

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. D. Lee/L. D. Walker Date Sampled 8/26/92 Time 1210 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
BCGW D01	3, 40ml, Gs	W	CLP-VOA
2	~~3~~, 2L, aG	W	SEMI-VOA, PCB/PEST
KT 8/26/92	1, 1L, P	W	ICP/AA METAL & Hg, (HNO3) UNFILTERED
	3, 1L, P	W	TDS, ANIONS, TSS, ALK
	1, 1L, P	W	AMMONIA, COD (H2SO4)
	1, 250ml, aG	W	TOC (INCLUDES BICARBONATE/CARBONATE) (H2SO4
	1, 250ml, Gs	W	TOX (H2SO4)
	1, 1L, P	W	GROSS ALPHA/BETA, GAMMA SCAN (HNO3)
BCGWFC	1, 1L, P	W	ICP/AA METAL & Hg (HNO3) FILTERED
BCGWF1	3, 40ml, Gs	W	CLP-VOA

Field Information** OPC: WA2-0-0575-18
POL: 250097018-7
Task: 92-128

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Title Date

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location

A-6000-406 (05/

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

RFW Batch Number: 9208L666 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 10/08/92 10:55 Page: 1a

	Cust ID:	B06PY1		B06PY1		B06PY1		B06PY3		B06WD9		B06WF1	
Sample Information	RFW#:	001		001 MS		001 MSD		003		004		006	
	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	
Surrogate Recovery	Toluene-d8	101	%	95	%	104	%	106	%	96	%	105	%
	Bromofluorobenzene	104	%	96	%	102	%	106	%	101	%	108	%
	1,2-Dichloroethane-d4	101	%	87	%	86	%	98	%	93	%	95	%
			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		10	U	10	U	10	U	3	J	10	U	39	
Acetone		10	U	10	U	10	U	1	J	1	J	10	U
Carbon Disulfide		10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene		10	U	109	%	108	%	10	U	10	U	10	U
1,1-Dichloroethane		10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethene (total)		10	U	10	U	10	U	10	U	10	U	10	U
Chloroform		10	U	10	U	10	U	2	J	10	U	2	J
1,2-Dichloroethane		10	U	10	U	10	U	10	U	10	U	10	U
2-Butanone		10	U	10	U	10	U	10	U	10	U	10	U
1,1,1-Trichloroethane		10	U	10	U	10	U	10	U	10	U	10	U
Carbon Tetrachloride		10	U	10	U	10	U	10	U	10	U	10	U
Bromodichloromethane		10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane		10	U	10	U	10	U	10	U	10	U	10	U
cis-1,3-Dichloropropene		10	U	10	U	10	U	10	U	10	U	10	U
Trichloroethene		10	U	101	%	100	%	10	U	10	U	10	U
Dibromochloromethane		10	U	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloroethane		10	U	10	U	10	U	10	U	10	U	10	U
Benzene		10	U	124	%	121	%	10	U	10	U	10	U
trans-1,3-Dichloropropene		10	U	10	U	10	U	10	U	10	U	10	U
Bromoform		10	U	10	U	10	U	10	U	10	U	10	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		10	U	10	U	10	U	10	U	1	JB	10	U
1,1,2,2-Tetrachloroethane		10	U	10	U	10	U	10	U	10	U	10	U
Toluene		10	U	109	%	118	%	10	U	1	JB	10	U

*= Outside of EPA CLP QC limits.

9613427.1687 000009

RFW Batch Number: 9208L666 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Page: 1b

Cust ID:	B06PY1	B06PY1	B06PY1	B06PY3	B06WD9	B06WF1
RFW#:	001	001 MS	001 MSD	003	004	006
Chlorobenzene	10 U	117 %	113 %	10 U	1 JB	10 U
Ethylbenzene	10 U	10 U	10 U	10 U	1 JB	10 U
Styrene	10 U	10 U	10 U	10 U	1 JB	10 U
Xylene (total)	10 U	10 U	10 U	10 U	5 JB	10 U

*= Outside of EPA CLP QC limits.

9637.648 000010

9613427.1649

1A

0000025 CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B06PY1

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

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9208L666-001

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

Lab File ID: Q090220

Level: (low/med) LOW

Date Received: 08/28/92

% Moisture: not dec.

Date Analyzed: 09/03/92

GC Column: SP1000 ID: 2.00(mm)

Dilution Factor: 1.00

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
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	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

9613427.1650

1E

0000026 CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06PY1

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

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9208L666-001

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

Lab File ID: Q090220

Level: (low/med) LOW

Date Received: 08/28/92

% Moisture: not dec.

Date Analyzed: 09/03/92

GC Column: SP1000 ID: 2.00(mm)

Dilution Factor: 1.00

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 0

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

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

9613427.1651

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000030 CLIENT SAMPLE NO.

B06PY3

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

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9208L666-003

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

Lab File ID: Q090227

Level: (low/med) LOW

Date Received: 08/28/92

% Moisture: not dec.

Date Analyzed: 09/03/92

GC Column: SP1000 ID: 2.00(mm)

Dilution Factor: 1.00

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
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	J
67-64-1	Acetone	1	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	2	J
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

9613427.1652 IE

0n0031 CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06PY3

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

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9208L666-003

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

Lab File ID: Q090227

Level: (low/med) LOW

Date Received: 08/28/92

% Moisture: not dec.

Date Analyzed: 09/03/92

GC Column: SP1000 ID: 2.00(mm)

Dilution Factor: 1.00

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 0

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

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

9613427.1653

1A

0 0 0 0 3 8 CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B06WD9

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

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9208L666-004

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

Lab File ID: Q090228

Level: (low/med) LOW

Date Received: 08/28/92

% Moisture: not dec.

Date Analyzed: 09/03/92

GC Column: SP1000 ID: 2.00(mm)

Dilution Factor: 1.00

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
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	10	U
67-64-1	Acetone	1	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	1	JB
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	1	JB
108-90-7	Chlorobenzene	1	JB
100-41-4	Ethylbenzene	1	JB
100-42-5	Styrene	1	JB
1330-20-7	Xylene (total)	5	JB

9613427.1654 0000039 CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06WD9

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

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9208L666-004

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

Lab File ID: Q090228

Level: (low/med) LOW

Date Received: 08/28/92

% Moisture: not dec.

Date Analyzed: 09/03/92

GC Column: SP1000 ID: 2.00(mm)

Dilution Factor: 1.00

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 0

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

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

9613427.1655 0000051 CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B06WF1

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

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9208L666-006

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

Lab File ID: Q090229

Level: (low/med) LOW

Date Received: 08/28/92

% Moisture: not dec.

Date Analyzed: 09/03/92

GC Column: SP1000 ID: 2.00(mm)

Dilution Factor: 1.00

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
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	39	
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	2	J
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

9613427.1656

1E

0000052 CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06WF1

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

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9208L666-006

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

Lab File ID: Q090229

Level: (low/med) LOW

Date Received: 08/28/92

% Moisture: not dec.

Date Analyzed: 09/03/92

GC Column: SP1000 ID: 2.00(mm)

Dilution Factor: 1.00

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 0

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

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

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

RFW Batch Number: 9208L666 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 10/02/92 15:51 Page: 1a

	Cust ID:	B06PY1	B06PY1	B06PY1	B06WD9	SBLK	SBLK BS
Sample Information	RFW#:	001	001 MS	001 MSD	004	92LE1475-MB1	92LE1475-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
Surrogate Recovery	Nitrobenzene-d5	100 %	103 %	93 %	89 %	89 %	72 %
	2-Fluorobiphenyl	91 %	91 %	79 %	81 %	86 %	64 %
	Terphenyl-d14	116 %	120 %	114 %	101 %	112 %	91 %
	Phenol-d5	102 %	102 %	82 %	85 %	95 %	78 %
	2-Fluorophenol	93 %	89 %	81 %	79 %	93 %	68 %
	2,4,6-Tribromophenol	124 * %	125 * %	124 * %	114 %	113 %	91 %
	2-Chlorophenol-d4	102 %	102 %	93 %	88 %	93 %	78 %
	1,2-Dichlorobenzene-d4	77 %	76 %	66 %	69 %	71 %	54 %
		fl	fl	fl	fl	fl	fl
Phenol		10 U	107 %	101 %	10 U	10 U	93 %
bis(2-Chloroethyl)ether		10 U	18 U	18 U	10 U	10 U	10 U
2-Chlorophenol		10 U	99 %	91 %	10 U	10 U	84 %
1,3-Dichlorobenzene		10 U	18 U	18 U	10 U	10 U	10 U
1,4-Dichlorobenzene		10 U	67 %	62 %	10 U	10 U	55 %
1,2-Dichlorobenzene		10 U	18 U	18 U	10 U	10 U	10 U
2-Methylphenol		10 U	18 U	18 U	10 U	10 U	10 U
2,2'-oxybis(2-Chloropropane)		10 U	18 U	18 U	10 U	10 U	10 U
4-Methylphenol		10 U	18 U	18 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine		10 U	98 %	88 %	10 U	10 U	80 %
Hexachloroethane		10 U	18 U	18 U	10 U	10 U	10 U
Nitrobenzene		10 U	18 U	18 U	10 U	10 U	10 U
Isophorone		10 U	18 U	18 U	10 U	10 U	10 U
2-Nitrophenol		10 U	18 U	18 U	10 U	10 U	10 U
2,4-Dimethylphenol		10 U	18 U	18 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane		10 U	18 U	18 U	10 U	10 U	10 U
2,4-Dichlorophenol		10 U	18 U	18 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene		10 U	80 %	74 %	10 U	10 U	62 %
Naphthalene		10 U	18 U	18 U	10 U	10 U	10 U
4-Chloroaniline		10 U	18 U	18 U	10 U	10 U	10 U
Hexachlorobutadiene		10 U	18 U	18 U	10 U	10 U	10 U
4-Chloro-3-methylphenol		10 U	115 * %	113 * %	10 U	10 U	91 %
2-Methylnaphthalene		10 U	18 U	18 U	10 U	10 U	10 U
Hexachlorocyclopentadiene		10 U	18 U	18 U	10 U	10 U	10 U

*= Outside of EPA CLP QC limits.

9613427.1657
000008

RFW Batch Number: 9208L666 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Page: 1b

Cust ID:	B06PY1		B06PY1		B06PY1		B06WD9		SBLK		SBLK BS	
RFW#:	001		001 MS		001 MSD		004		92LE1475-MB1		92LE1475-MB1	
2,4,6-Trichlorophenol	10	U	18	U	18	U	10	U	10	U	10	U
2,4,5-Trichlorophenol	26	U	46	U	46	U	26	U	25	U	25	U
2-Chloronaphthalene	10	U	18	U	18	U	10	U	10	U	10	U
2-Nitroaniline	26	U	46	U	46	U	26	U	25	U	25	U
Dimethylphthalate	10	U	18	U	18	U	10	U	10	U	10	U
Acenaphthylene	10	U	18	U	18	U	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	18	U	18	U	10	U	10	U	10	U
3-Nitroaniline	26	U	46	U	46	U	26	U	25	U	25	U
Acenaphthene	10	U	91	%	87	%	10	U	10	U	79	%
2,4-Dinitrophenol	26	U	46	U	46	U	26	U	25	U	25	U
4-Nitrophenol	26	U	124 *	%	125 *	%	26	U	25	U	87 *	%
Dibenzofuran	10	U	18	U	18	U	10	U	10	U	10	U
2,4-Dinitrotoluene	10	U	106 *	%	103 *	%	10	U	10	U	87	%
Diethylphthalate	10	U	18	U	18	U	10	U	10	U	10	U
4-Chlorophenyl-phenylether	10	U	18	U	18	U	10	U	10	U	10	U
Fluorene	10	U	18	U	18	U	10	U	10	U	10	U
4-Nitroaniline	26	U	46	U	46	U	26	U	25	U	25	U
4,6-Dinitro-2-methylphenol	26	U	46	U	46	U	26	U	25	U	25	U
N-Nitrosodiphenylamine (1)	10	U	18	U	18	U	10	U	10	U	10	U
4-Bromophenyl-phenylether	10	U	18	U	18	U	10	U	10	U	10	U
Hexachlorobenzene	10	U	18	U	18	U	10	U	10	U	10	U
Pentachlorophenol	26	U	97	%	103	%	26	U	25	U	90	%
Phenanthrene	10	U	18	U	18	U	10	U	10	U	10	U
Anthracene	10	U	18	U	18	U	10	U	10	U	10	U
Carbazole	10	U	18	U	18	U	10	U	10	U	10	U
Di-n-butylphthalate	4	JB	8	JB	8	JB	4	JB	3	J	2	JB
Fluoranthene	10	U	18	U	18	U	10	U	10	U	10	U
Pyrene	10	U	112	%	115	%	10	U	10	U	100	%
Butylbenzylphthalate	10	U	18	U	18	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	10	U	18	U	18	U	10	U	10	U	10	U
Benzo(a)anthracene	10	U	18	U	18	U	10	U	10	U	10	U
Chrysene	10	U	18	U	18	U	10	U	10	U	10	U
bis(2-Ethylhexyl)phthalate	3	JB	2	JB	17	JB	2	JB	2	J	2	JB
Di-n-octyl phthalate	10	U	18	U	18	U	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	18	U	18	U	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	18	U	18	U	10	U	10	U	10	U
Benzo(a)pyrene	10	U	18	U	18	U	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	18	U	18	U	10	U	10	U	10	U
Dibenz(a,h)anthracene	10	U	18	U	18	U	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	18	U	18	U	10	U	10	U	10	U

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

000009
9613427.1658

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLE(S) RECEIVED:** 08-28-92
RFW #: 9208L666, SEMIVOLATILE
W.O. #: 6168-02-01

NARRATIVE

The set of samples consisted of two (2) water samples collected on 08-26-92.

The samples were extracted on 09-01-92 and analyzed according to criteria set forth in CLP SOW 03/90 for TCL Semivolatile target compounds on 09-15-92.

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 forty-eight (48) surrogate recoveries were outside EPA QC limits; however, EPA CLP surrogate recovery criteria were met [i.e., no more than one outlier per fractin {acid and base neutral} and no recoveries less than 10%].

3. Six (6) of twenty-two (22) matrix spike recoveries were outside EPA QC limits.

4. One (1) of eleven (11) blank spike recoveries was outside EPA QC limits.

5. The laboratory blank 92LE1475-MB1 contained the common contaminants Di-n-butylphthalate and Bis(2-ethylhexyl)phthalate at levels less than the CRQL.

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

J. Peter Hershey, Ph.D. 10.09.92
Laboratory Manager Date
Lionville Analytical Laboratory

kls/08-666b.cn

9613427.1660

1B

0000024

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B06PY1

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

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9208L666-001

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

Lab File ID: M091509

Level: (low/med) LOW

Date Received: 08/28/92

% Moisture: _____ decanted: (Y/N)__

Date Extracted: 09/01/92

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 09/15/92

Injection Volume: 2.0(uL)

Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
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
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(2-Chloropropane)	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
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	26	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	26	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	26	U
83-32-9	Acenaphthene	10	U

9613427.1661

1c 000025

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B06PY1

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

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9208L666-001

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

Lab File ID: M091509

Level: (low/med) LOW

Date Received: 08/28/92

% Moisture: _____ decanted: (Y/N)__

Date Extracted: 09/01/92

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 09/15/92

Injection Volume: 2.0(uL)

Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	26	U
100-02-7	4-Nitrophenol	26	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	26	U
534-52-1	4,6-Dinitro-2-methylphenol	26	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	26	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	4	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	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	3	JB
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	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613427.1662

1F

0000026

CLIENT SAMPLE NO.

B06PY1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

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

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9208L666-001

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

Lab File ID: M091509

Level: (low/med) LOW

Date Received: 08/28/92

% Moisture: _____ decanted: (Y/N)__

Date Extracted: 09/01/92

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 09/15/92

Injection Volume: 2.0(uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N

pH: 7.0

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	20.43	8	J
2.	UNKNOWN	21.75	3	J
3.	UNKNOWN	22.03	8	J
4.	UNKNOWN	24.50	7	JB

9613427.1663

1B

0 0 0 0 4 2 CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B06WD9

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

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER Lab Sample ID: 9208L666-004

Sample wt/vol: 990 (g/mL) ML Lab File ID: M091512

Level: (low/med) LOW Date Received: 08/28/92

% Moisture: _____ decanted: (Y/N)__ Date Extracted: 09/01/92

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/15/92

Injection Volume: 2.0(uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
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
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(2-Chloropropane)	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
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	26	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	26	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	26	U
83-32-9	Acenaphthene	10	U

9613427.1664

1C

0000043 CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B06WD9

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

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9208L666-004

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

Lab File ID: M091512

Level: (low/med) LOW

Date Received: 08/28/92

% Moisture: _____ decanted: (Y/N)__

Date Extracted: 09/01/92

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 09/15/92

Injection Volume: 2.0(uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N

pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	26	U
100-02-7	4-Nitrophenol	26	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	26	U
534-52-1	4,6-Dinitro-2-methylphenol	26	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	26	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	4	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	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	2	JB
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	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613427.1665

1F

0000044 CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06WD9

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

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9208L666-004

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

Lab File ID: M091512

Level: (low/med) LOW

Date Received: 08/28/92

% Moisture: _____ decanted: (Y/N)__

Date Extracted: 09/01/92

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 09/15/92

Injection Volume: 2.0(uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N

pH: 7.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	NITROSOMORPHOLINE	8.08	8	J
2.	UNKNOWN	24.52	4	JB

9613427.1666 0000008 Signature Security Service

Contractor	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT)
Westinghouse Hanford		

PART I – TO BE COMPLETED BY ORIGINATOR

Department	Section	Unit
Env. Eng. & Tech.	Hydrology	Geosciences

The following items are to be shipped from ☐ Contractor ☐ Vendor

Routing Gallery ☐ Contractor ☐ Vendor

Shipped to	Off-site Custodian
Weston 208 Welch Pool Rd. Linoville, PA 19341	Josie King
	Full Title

Quantity	Description (Include Serial and any Government Tag Numbers)	Original Cost
1 35.	Sample #: Cooler ID: Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
lbs.	Sample #: Cooler ID: Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

☐ Classified ☒ Unclassified ☐ Shipped Under DOE Contract ☐ Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property

Sampling supports RI/FS work in the 200 Areas.

Bill of Lading # _____

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release	RM Survey No	Date

Location of Property (Area & Bldg.)	Contact	Phone
200 AAMS	PH Butcher	(509)376-5045

Date Ready for Shipment	Cost Code to be Charged	Approximate Date This Property will be Returned
	W81232/PB23B	

Originated By	Date	Authorized By	Date
PH Butcher	8/27/92	PH Butcher PH Butcher	8/27/92
Signature and Name of Property Control	Custodian Date	Property Management Approval	Date

PART II – TO BE COMPLETED BY SHIPPING

Signature of Recipient	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date				

DISTRIBUTION

By Originator	Shipping Operation – Sign all Copies and Forward to:	
White, Green, Yellow, Pink – Property Management Goldenrod – Retain	White – Property Management Yellow – Retain	Green – Property Control Custodian (Issuing Office) Pink – Originator

54-3000-479 (09/89)

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

RFW Batch Number: 9208L666 | Client: WESTINGHOUSE HANFORD | Work Order: 06168-002-001-0000-00 | Report Date: 10/28/92 20:46 | Page: 1

	Cust ID:	B06PY1	B06PY1	B06PY1	B06PY1	B06PY1	B06PY1
Sample Information	RFW#:	001	001	001	001	001 MS	001 MS
	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
			CONFIRM	REPREP	RE/CONF	REPREP	RE/CONF
Surrogate:	Tetrachloro-m-xylene	15 * %	20 * %	60 %	52 * %	60 %	52 * %
Surrogate:	Decachlorobiphenyl	20 * %	15 * %	NS %	NS %	NS %	NS %
		fl	fl	fl	fl	fl	fl
Alpha-BHC		0.050 U	NA	0.050 U	NA	0.050 U	NA
Beta-BHC		0.050 U	NA	0.050 U	NA	0.050 U	NA
Delta-BHC		0.050 U	NA	0.050 U	NA	0.050 U	NA
gamma-BHC (Lindane)		0.050 U	NA	0.050 U	NA	55 * %	50 * %
Heptachlor		0.050 U	NA	0.050 U	NA	65 %	60 %
Aldrin		0.050 U	NA	0.15 B	0.050 U	40 %	55 %
Heptachlor epoxide		0.050 U	NA	0.050 U	NA	0.050 U	NA
Endosulfan I		0.050 U	NA	0.050 U	NA	0.050 U	NA
Dieldrin		0.10 U	NA	0.10 U	NA	56 %	54 %
4,4'-DDE		0.10 U	NA	0.10 U	NA	0.10 U	NA
Endrin		0.10 U	NA	0.10 U	NA	54 * %	50 * %
Endosulfan II		0.10 U	NA	0.10 U	NA	0.10 U	NA
4,4'-DDD		0.10 U	NA	0.10 U	NA	0.10 U	NA
Endosulfan sulfate		0.10 U	NA	0.10 U	NA	0.10 U	NA
4,4'-DDT		0.10 U	NA	0.10 U	NA	52 %	50 %
Methoxychlor		0.50 U	NA	0.50 U	NA	0.50 U	NA
Endrin ketone		0.10 U	NA	0.10 U	NA	0.10 U	NA
Endrin aldehyde		0.10 U	NA	0.10 U	NA	0.10 U	NA
alpha-Chlordane		0.050 U	NA	0.050 U	NA	0.050 U	NA
gamma-Chlordane		0.050 U	NA	0.050 U	NA	0.050 U	NA
Toxaphene		5.0 U	NA	5.0 U	NA	5.0 U	NA
Aroclor-1016		1.0 U	NA	1.0 U	NA	1.0 U	NA
Aroclor-1221		2.0 U	NA	2.0 U	NA	2.0 U	NA
Aroclor-1232		1.0 U	NA	1.0 U	NA	1.0 U	NA
Aroclor-1242		1.0 U	NA	1.0 U	NA	1.0 U	NA
Aroclor-1248		1.0 U	NA	1.0 U	NA	1.0 U	NA
Aroclor-1254		1.0 U	NA	1.0 U	NA	1.0 U	NA
Aroclor-1260		1.0 U	NA	1.0 U	NA	1.0 U	NA

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

000016
9613427.1667

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

RFW Batch Number: 9208L666 | Client: WESTINGHOUSE HANFORD | Work Order: 06168-002-001-0000-00 | Report Date: 10/28/92 20:46 | Page: 2

Sample Information						
Cust ID:	B06PY1	B06PY1	B06WD9	B06WD9	B06WD9	B06WD9
RFW#:	001 MSD	001 MSD	004	004	004	004
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
	REPREP	RE/CONF		CONFIRM	REPREP	RE/CONF
Surrogate: Tetrachloro-m-xylene	62 %	57 * %	10 * %	20 * %	75 %	67 %
Surrogate: Decachlorobiphenyl	NS %	NS %	15 * %	15 * %	NS %	NS %
	fl	fl	fl	fl	fl	fl
Alpha-BHC	0.050 U	NA	0.050 U	NA	0.061 U	NA
Beta-BHC	0.050 U	NA	0.050 U	NA	0.061 U	NA
Delta-BHC	0.050 U	NA	0.050 U	NA	0.061 U	NA
gamma-BHC (Lindane)	60 %	55 * %	0.050 U	NA	0.061 U	NA
Heptachlor	65 %	60 %	0.050 U	NA	0.061 U	NA
Aldrin	50 %	55 %	0.050 U	NA	0.33 B	0.061 U
Heptachlor epoxide	0.050 U	NA	0.050 U	NA	0.061 U	NA
Endosulfan I	0.050 U	NA	0.050 U	NA	0.061 U	NA
Dieldrin	60 %	58 %	0.10 U	NA	0.12 U	NA
4,4'-DDE	0.10 U	NA	0.10 U	NA	0.12 U	NA
Endrin	56 %	52 * %	0.10 U	NA	0.12 U	NA
Endosulfan II	0.10 U	NA	0.10 U	NA	0.12 U	NA
4,4'-DDD	0.10 U	NA	0.10 U	NA	0.12 U	NA
Endosulfan sulfate	0.10 U	NA	0.10 U	NA	0.12 U	NA
4,4'-DDT	52 %	52 %	0.10 U	NA	0.12 U	NA
Methoxychlor	0.50 U	NA	0.50 U	NA	0.61 U	NA
Endrin ketone	0.10 U	NA	0.10 U	NA	0.12 U	NA
Endrin aldehyde	0.10 U	NA	0.10 U	NA	0.12 U	NA
alpha-Chlordane	0.050 U	NA	0.050 U	NA	0.061 U	NA
gamma-Chlordane	0.050 U	NA	0.050 U	NA	0.061 U	NA
Toxaphene	5.0 U	NA	5.0 U	NA	6.1 U	NA
Aroclor-1016	1.0 U	NA	1.0 U	NA	1.2 U	NA
Aroclor-1221	2.0 U	NA	2.0 U	NA	2.4 U	NA
Aroclor-1232	1.0 U	NA	1.0 U	NA	1.2 U	NA
Aroclor-1242	1.0 U	NA	1.0 U	NA	1.2 U	NA
Aroclor-1248	1.0 U	NA	1.0 U	NA	1.2 U	NA
Aroclor-1254	1.0 U	NA	1.0 U	NA	1.2 U	NA
Aroclor-1260	1.0 U	NA	1.0 U	NA	1.2 U	NA

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

000011
9613427.1668

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

RFW Batch Number: 9208L666 Client: WESTINGHOUSE HANFORD Work Order: 06168-002-001-0000-00 Report Date: 10/28/92 20:46

Cust ID:	B06WD9	B06WD9	B06WD9	B06WD9	PBLK	PBLK
Sample Information RFW#:	004 MS	004 MS	004 MSD	004 MSD	92LE1489-MB1	92LE1489-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
		CONFIRM		CONFIRM		CONFIRM
Surrogate: Tetrachloro-m-xylene	15 * %	30 * %	10 * %	25 * %	15 * %	I %
Surrogate: Decachlorobiphenyl	15 * %	15 * %	10 * %	10 * %	20 * %	15 * %
	fl	fl	fl	fl	fl	fl
Alpha-BHC	0.050 U	NA	0.050 U	NA	0.050 U	NA
Beta-BHC	0.050 U	NA	0.050 U	NA	0.050 U	NA
Delta-BHC	0.050 U	NA	0.050 U	NA	0.050 U	NA
gamma-BHC (Lindane)	130 * %	114 %	96 %	86 %	0.050 U	NA
Heptachlor	106 %	102 %	82 %	72 %	0.050 U	NA
Aldrin	146 * %	100 %	88 %	76 %	1.4	0.050 U
Heptachlor epoxide	0.050 U	NA	0.050 U	NA	0.050 U	NA
Endosulfan I	0.050 U	NA	0.050 U	NA	0.050 U	NA
Dieldrin	127 * %	119 %	95 %	89 %	0.10 U	NA
4,4'-DDE	0.10 U	NA	0.10 U	NA	0.10 U	NA
Endrin	139 * %	127 * %	102 %	95 %	0.10 U	NA
Endosulfan II	0.10 U	NA	0.10 U	NA	0.10 U	NA
4,4'-DDD	0.10 U	NA	0.10 U	NA	0.10 U	NA
Endosulfan sulfate	0.10 U	NA	0.10 U	NA	0.10 U	NA
4,4'-DDT	146 * %	134 * %	99 %	98 %	0.10 U	NA
Methoxychlor	0.50 U	NA	0.50 U	NA	0.50 U	NA
Endrin ketone	0.10 U	NA	0.10 U	NA	0.10 U	NA
Endrin aldehyde	0.10 U	NA	0.10 U	NA	0.10 U	NA
alpha-Chlordane	0.050 U	NA	0.050 U	NA	0.050 U	NA
gamma-Chlordane	0.050 U	NA	0.050 U	NA	0.050 U	NA
Toxaphene	5.0 U	NA	5.0 U	NA	5.0 U	NA
Aroclor-1016	1.0 U	NA	1.0 U	NA	1.0 U	NA
Aroclor-1221	2.0 U	NA	2.0 U	NA	2.0 U	NA
Aroclor-1232	1.0 U	NA	1.0 U	NA	1.0 U	NA
Aroclor-1242	1.0 U	NA	1.0 U	NA	1.0 U	NA
Aroclor-1248	1.0 U	NA	1.0 U	NA	1.0 U	NA
Aroclor-1254	1.0 U	NA	1.0 U	NA	1.0 U	NA
Aroclor-1260	1.0 U	NA	1.0 U	NA	1.0 U	NA

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

000012

ROY F. WESTON, INC.
LIONVILLE ANALYTICAL LABORATORY
ANALYTICAL CASE NARRATIVE

Client: WESTINGHOUSE HANFORD
RFW #: 9208L666

W.O. #: 06168-002-001-9999-00
Date Received: 08-28-92

PESTICIDE/PCB

The set of samples consisted of two (2) water samples collected on 08-26-92.

The samples were extracted on 09-02-92 and 10-20-92 and analyzed according to criteria set forth in the Contract Laboratory Program 03/90 SOW for Pesticide and PCB target compounds on 10-04,08,24-92.

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

1. Sample extracts were re-extracted, outside the holding time, due to low surrogate recoveries; however, the re-extracted batch 92LE1790 was inadvertently surrogated and spiked with 2/88 surrogates and spikes, which contains DBC instead of DCB.

   Endosulfan Sulfate coelutes with DBC on the DB1701 column; therefore, confirmation is not possible. Since no peaks eluted at the retention time window of Endosulfan Sulfate on the DB608 column, no confirmation was required.

2. Linearity and breakdown criteria were met for each of the analytical columns.

3. Retention time criteria were met for all compounds on both analytical columns.

4. Resolution of all pesticides in the Resolution Check Standard were within EPA QC limits.

5. The RPDs of the pesticides in the individual mixes analyzed for calibration verification were within 25% for both analytical columns.

6. The RPDs of the pesticides in the Performance Evaluation Mixes analyzed for calibration verification were within 25% for both analytical columns.

WESTON MANAGERS DESIGNERS CONSULTANTS

7. Thirty (30) of thirty-five (35) surrogate recoveries were outside the EPA QC limits. The following surrogate recoveries were outside the EPA QC limits of 60%-150%.

Sample ID	% Recoveries TCX1	TCX2	DCB1	DCB2
B06PY1	15	20	20	15
B06PY1 RE	-	52	-	-
B06PY1 MSRE	-	52	-	-
B06PY1 MSDRE	-	57	-	-
B06WD9	10	20	15	15
B06WD9 MS	15	30	15	15
B06WD9 MSD	10	25	10	10
92LE1489-MB1	15	-	20	15
92LE1489-MB1 BS	10	10	15	15
92LE1790-MB1	42	35	-	-
92LE1790-MB1 BS	40	35	-	-

8. Four (4) of twenty-three (23) obtainable blank spike recoveries were outside EPA QC limits. The following blank spike recoveries were outside EPA QC limits:

Compound ID	(%) Recovery	QC Limits
4,4'-DDT	130 & 130	38 - 127
Gamma-BHC	55	56 - 123
Endrin	54	56 - 121

9. Thirteen (13) of forty-eight (48) matrix spike recoveries were outside EPA QC limits. The following matrix spike recoveries were outside EPA QC limits:

Sample ID	Compound ID	(%) Recovery	QC Limits
B06PY1 MS, MSD	Gamma-BHC	55, 50, 55	56 - 127
	Endrin	54, 50, 52	56 - 123
B06WD9 MS	Gamma-BHC	130	56 - 123
	Aldrin	146	40 - 120
	Dieldrin	127	52 - 126
	Endrin	139, 127	56 - 121
	4,4'-DDT	146, 134	38 - 127

WESTON
MANAGERS DESIGNERS CONSULTANTS

10. Recoveries of pesticides for the Florisil Cartridge Check were within EPA QC limits.

Margaret M. Beaty for
J. Peter Hershey, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

11/6/92
Date

sma/pcb/08-666pp.cn

9613427.1673

ID 0000030 CLIENT SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

B06PY1

Lab Name: Roy F. Weston, Inc. Work Order: 06168-002-001-0000-00

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER — Lab Sample ID: 9208L666-001

Sample wt/vol: 990 (g/mL) ML — Lab File ID: 09309235.75

% Moisture: decanted: (Y/N) _ — Date Received: 08/28/92

Extraction: (SepF/Cont/Sonc) CONT — Date Extracted: 09/02/92

Concentrated Extract Volume: 10000.00 (uL) — Date Analyzed: 10/04/92

Injection Volume: 0.5 (uL) — Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
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
7421934	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	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	1.0	U
11096-82-5	Aroclor-1260	1.0	U

DR 10/30/92

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1D

0000036 CLIENT SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

B06PY1RE

Lab Name: Roy F. Weston, Inc. Work Order: 06168-002-001-0000-00

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER — Lab Sample ID: 9208L666-001

Sample wt/vol: 990 (g/mL) ML — Lab File ID: 10239235.11

% Moisture: decanted: (Y/N) _ — Date Received: 08/28/92

Extraction: (SepF/Cont/Sonc) CONT — Date Extracted: 10/20/92

Concentrated Extract Volume: 10000.00 (uL) — Date Analyzed: 10/24/92

Injection Volume: 0.5 (uL) — Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
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
7421934	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	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	1.0	U
11096-82-5	Aroclor-1260	1.0	U

DR 10/30/92

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ID 0 0 0 0 0 4 1 CLIENT SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

B06WD9

Lab Name: Roy F. Weston, Inc. Work Order: 06168-002-001-0000-00

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER — Lab Sample ID: 9208L666-004

Sample wt/vol: 990 (g/mL) ML — Lab File ID: 09309235.76

% Moisture: decanted: (Y/N)_ — Date Received: 08/28/92

Extraction: (SepF/Cont/Sonc) CONT — Date Extracted: 09/02/92

Concentrated Extract Volume: 10000.00 (uL) — Date Analyzed: 10/04/92

Injection Volume: 0.5 (uL) — Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
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
7421934	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	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	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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ID

0000047 CLIENT SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

B06WD9RE

Lab Name: Roy F. Weston, Inc. Work Order: 06168-002-001-0000-00

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER — Lab Sample ID: 9208L666-004

Sample wt/vol: 820 (g/mL) ML — Lab File ID: 10239235.19

% Moisture: decanted: (Y/N)_ — Date Received: 08/28/92

Extraction: (SepF/Cont/Sonc) CONT — Date Extracted: 10/20/92

Concentrated Extract Volume: 10000.00(uL) — Date Analyzed: 10/24/92

Injection Volume: 0.5(uL) — Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	Alpha-BHC	0.061	U
319-85-7	Beta-BHC	0.061	U
319-86-8	Delta-BHC	0.061	U
58-89-9	gamma-BHC (Lindane)	0.061	U
76-44-8	Heptachlor	0.061	U
309-00-2	Aldrin	0.061	U
1024-57-3	Heptachlor epoxide	0.061	U
959-98-8	Endosulfan I	0.061	U
60-57-1	Dieldrin	0.12	U
72-55-9	4,4'-DDE	0.12	U
72-20-8	Endrin	0.12	U
33213-65-9	Endosulfan II	0.12	U
72-54-8	4,4'-DDD	0.12	U
1031-07-8	Endosulfan sulfate	0.12	U
50-29-3	4,4'-DDT	0.12	U
72-43-5	Methoxychlor	0.61	U
53494-70-5	Endrin ketone	0.12	U
7421934	Endrin aldehyde	0.12	U
5103-71-9	alpha-Chlordane	0.061	U
5103-74-2	gamma-Chlordane	0.061	U
8001-35-2	Toxaphene	6.1	U
12674-11-2	Aroclor-1016	1.2	U
11104-28-2	Aroclor-1221	2.4	U
11141-16-5	Aroclor-1232	1.2	U
53469-21-9	Aroclor-1242	1.2	U
12672-29-6	Aroclor-1248	1.2	U
11097-69-1	Aroclor-1254	1.2	U
11096-82-5	Aroclor-1260	1.2	U

DR 10/30/92

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RECORD COPY

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLE(S) RECEIVED:** 08-28-92
RFW #: 9208L666
W.O. #: 6168-02-01

INORGANIC NARRATIVE

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

1. All sample holding times as required by 40CFR136 were met with the exception of Nitrite by IC, Nitrate by IC and Phosphate by IC (received past hold) and Total Organic Halides (analyzed 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% (70-130% for Total Organic Halides). All %RPD were within the 20% (40% for Total Organic Halides) 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% (70-130% for Total Orgganic Halides) 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% (40% for Total Organic Halides) 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).

Margaret M. Leahy for 10/5/92
J. Peter Hershey, Ph.D. Date
Laboratory Manager
Lionville Analytical Laboratory

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ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 10/01/92

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

WESTON BATCH #: 9208L666

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	B06PY1	Alkalinity	140	MG/L	2.0
		Chloride by IC	2.4	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
		Chemical Oxygen Demand	5.0 u	MG/L	5.0
		Phosphate by IC	0.25 u	MG/L	0.25
		Sulfate by IC	28.4	MG/L	5.0
		Ammonia, as N	0.10 u	MG/L	0.10
		Total Organic Carbon	0.50 u	MG/L	0.50
		Total Dissolved Solids	247	MG/L	5.0
		Total Organic Halides	20.0 u	UG/L	20.0
		Total Suspended Solids	5.0 u	MG/L	5.0
-004	B06WD9	Alkalinity	320	MG/L	2.0
		Chloride by IC	5.4	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	107	MG/L	5.0
		Chemical Oxygen Demand	5.0 u	MG/L	5.0
		Phosphate by IC	0.25 u	MG/L	0.25
		Sulfate by IC	21.5	MG/L	5.0
		Ammonia, as N	0.10 u	MG/L	0.10
		Total Organic Carbon	0.50 u	MG/L	0.50
		Total Dissolved Solids	306	MG/L	5.0
		Total Organic Halides	6.3	UG/L	5.0
		Total Suspended Solids	16.0	MG/L	5.0

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ROY F. WESTON, INC.
LIONVILLE ANALYTICAL LABORATORY
ANALYTICAL CASE NARRATIVE

Client : WESTINGHOUSE HANFORD
RFW# : 9208L666

W.O. #: 6168-02-01
Date Received: 08-28-92

CLP METALS

The set of samples consisted of four (4) water samples collected on 08-26-92.

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. Solubles and totals were digested within the same digestion batch; therefore, will have the same QC flags.

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

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

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

5. All preparation blank values were within control limits.

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

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

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

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

WESTON
MANAGERS DESIGNERS/CONSULTANTS

10. 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).

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

12. 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

J. Peter Hershey, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

11/9/92
Date

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ROY F. WESTON, INC.
LIONVILLE ANALYTICAL LABORATORY
ANALYTICAL CASE NARRATIVE

Client: WESTINGHOUSE
RFW#: 9208L666

W.O. #: 6168-02-01
Date Received: 08-28-92

CLP METALS ADDENDUM

1. Following Exhibit E, Section V, Item 10, page E-23 of the USEPA Statement of Work for Inorganics Analysis, Document Number ILM02.0 ICP Instrument Detection Limits (IDLs) are reported for two (2) ICP instruments. The instrument identification numbers are "IC1" and "IC3". The highest IDL for the two instruments is used for reporting concentration values in this sample data package.

2. A discrepancy exists between raw data and Form XIVs analytical spikes recovery calculations performed for graphite furnace AA analytes. Instrument software calculates spike recoveries based on absolute values below the IDL for sample results. This is hard-coded by the vendor and is currently not correctable. CLP convention (SOW ILM02.0, Exhibit E, Section V, Item 6, page E-20) requires that when values fall below the IDL, the sample result is equal to zero (0) for the purposes of calculating the percent recovery. The Form XIVs contain the correct calculation.

Margaret M. Leahy for

J. Peter Hershey, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

11/9/92
Date

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ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 11/06/92

CLIENT: WESTINGHOUSE HANFORD
WORK ORDER: 06168-002-001-0000-00

WESTON BATCH #: 9208L666

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-001	B06PY1	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	25300		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	11100		UG/L	5000
		Magnesium, Total	5690		UG/L	5000
		Manganese, Total	15.0	u	UG/L	15.0
		Sodium, Total	31500		UG/L	5000
		Nickel, Total	40.0	u	UG/L	40.0
		Lead, Total	30.0	u	UG/L	30.0
		Antimony, Total	60.0	u	UG/L	60.0
		Selenium, Total	50.0	u	UG/L	50.0
		Thallium, Total	10.0	u	UG/L	10.0
		Vanadium, Total	50.0	u	UG/L	50.0
		Zinc, Total	20.0	u	UG/L	20.0

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ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 11/06/92

CLIENT: WESTINGHOUSE HANFORD
WORK ORDER: 06168-002-001-0000-00

WESTON BATCH #: 9208L666

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-002	B06PY2	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	24500		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	10800		UG/L	5000
		Magnesium, Soluble	5550		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	30.0	u	UG/L	30.0
		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	20.0	u	UG/L	20.0

ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 11/06/92

CLIENT: WESTINGHOUSE HANFORD
WORK ORDER: 06168-002-001-0000-00

WESTON BATCH #: 9208L666

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-004	B06WD9	Silver, Total	10.0	u	UG/L	10.0
		Aluminum, Total	315		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	36300		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	2060		UG/L	100
		Mercury, Total	0.20	u	UG/L	0.20
		Potassium, Total	5000	u	UG/L	5000
		Magnesium, Total	12900		UG/L	5000
		Manganese, Total	110		UG/L	15.0
		Sodium, Total	22700		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
		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

ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 11/06/92

CLIENT: WESTINGHOUSE HANFORD
WORK ORDER: 06168-002-001-0000-00

WESTON BATCH #: 9208L666

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-005	B06WF0	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	38600		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	5000	u	UG/L	5000
		Magnesium, Soluble	13600		UG/L	5000
		Manganese, Soluble	57.2		UG/L	15.0
		Sodium, Soluble	24000		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	20.0	u	UG/L	20.0

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06PY1

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP666

Matrix (soil/water): WATER Lab Sample ID: 920866601

Level (low/med): LOW Date Received: 8/28/92

% 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	60.50	B		P
7440-36-0	Antimony	60.00	U		P
7440-38-2	Arsenic	2.00	U		F
7440-39-3	Barium	66.00	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	7.00	U		P
7440-70-2	Calcium	25300.00			P
7440-47-3	Chromium	9.00	U		P
7440-48-4	Cobalt	9.00	U		P
7440-50-8	Copper	8.00	U		P
7439-89-6	Iron	97.50	B		P
7439-92-1	Lead	20.00	U	NW	F
7439-95-4	Magnesium	5690.00			P
7439-96-5	Manganese	4.00			P
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel	20.00	U		P
7440-09-7	Potassium	11100.00			P
7782-49-2	Selenium	20.00	U	N	F
7440-22-4	Silver	10.00	U		P
7440-23-5	Sodium	31500.00			P
7440-28-0	Thallium	2.00	U		F
7440-62-2	Vanadium	8.00	U		P
7440-66-6	Zinc	9.30	B		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.

B06PY2

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP666

Matrix (soil/water): WATER Lab Sample ID: 920866602

Level (low/med): LOW Date Received: 8/28/92

% 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	49.00	U		P
7440-36-0	Antimony	60.00	U		P
7440-38-2	Arsenic	2.00	B		F
7440-39-3	Barium	65.20	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	7.00	U		P
7440-70-2	Calcium	24500.00			P
7440-47-3	Chromium	9.00	U		P
7440-48-4	Cobalt	9.00	U		P
7440-50-8	Copper	8.00	U		P
7439-89-6	Iron	27.60	B		P
7439-92-1	Lead	20.00	U	NW	F
7439-95-4	Magnesium	5550.00			P
7439-96-5	Manganese	5.50	B		P
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel	20.00	U		P
7440-09-7	Potassium	10800.00			P
7782-49-2	Selenium	2.00	U	NW	F
7440-22-4	Silver	10.00	U		P
7440-23-5	Sodium	31100.00			P
7440-28-0	Thallium	2.00	U		F
7440-62-2	Vanadium	8.00	U		P
7440-66-6	Zinc	7.00	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06WD9

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP666

Matrix (soil/water): WATER Lab Sample ID: 920866604

Level (low/med): LOW Date Received: 8/28/92

% 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	315.00			P
7440-36-0	Antimony	60.00	U		P
7440-38-2	Arsenic	4.20	B		F
7440-39-3	Barium	37.70	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	7.00	U		P
7440-70-2	Calcium	36300.00			P
7440-47-3	Chromium	9.00	U		P
7440-48-4	Cobalt	9.00	U		P
7440-50-8	Copper	8.00	U		P
7439-89-6	Iron	2060.00			P
7439-92-1	Lead	2.00	U	NW	F
7439-95-4	Magnesium	12900.00			P
7439-96-5	Manganese	110.00			P
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel	20.00	U		P
7440-09-7	Potassium	3380.00	B		P
7782-49-2	Selenium	2.00	U	NW	F
7440-22-4	Silver	10.00	U		P
7440-23-5	Sodium	22700.00			P
7440-28-0	Thallium	2.00	U		F
7440-62-2	Vanadium	31.50	B		P
7440-66-6	Zinc	7.90	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06WF0

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP666

Matrix (soil/water): WATER Lab Sample ID: 920866605

Level (low/med): LOW Date Received: 8/28/92

% 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	55.90	B		P
7440-36-0	Antimony	60.00	U		P
7440-38-2	Arsenic	4.00	B		F
7440-39-3	Barium	35.70	B		P
7440-41-7	Beryllium	1.50	B		P
7440-43-9	Cadmium	7.00	U		P
7440-70-2	Calcium	38600.00			P
7440-47-3	Chromium	9.00	U		P
7440-48-4	Cobalt	9.00	U		P
7440-50-8	Copper	8.00	U		P
7439-89-6	Iron	55.80	B		P
7439-92-1	Lead	2.00	U	NW	F
7439-95-4	Magnesium	13600.00			P
7439-96-5	Manganese	57.20			P
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel	20.00	U		P
7440-09-7	Potassium	3520.00	B		P
7782-49-2	Selenium	2.00	U	NW	F
7440-22-4	Silver	10.00	U		P
7440-23-5	Sodium	24000.00			P
7440-28-0	Thallium	2.00	U		F
7440-62-2	Vanadium	28.10	B		P
7440-66-6	Zinc	7.00	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments: