START 9613452.0300

9207L857-WES-617 00 2

000015

0044608

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 07-01-92
RFW #: 9207L857, GC/MS VOLATILE
W.O. #: 6168-02-01

NARRATIVE

The set of samples consisted of six (6) water samples collected on 06-27-92.

The samples were analyzed according to criteria set forth in CLP SOW 02/88 (Rev. 05/89) for TCL Volatile target compounds on 07-08,09-92.

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. Sample B06PV1 required a five-fold dilution because it contained high levels of target compounds.

3. All surrogate recoveries were within EPA QC limits.

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

5. The laboratory blanks contained the common contaminants Methylene Chloride and Acetone at levels less than 2x the CRQL.

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

08.10.92
Date

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

FEB 1996
RECEIVED
EDMC

sma/voa/07-857v.cn

WESTON Analytics Use Only: 9207L857

BOL: 2509868207 OPC: W92-0-0399-44 TASK #: 92-128

Custody Transfer Record/Lab Work Request

WESTON MANAGERS DESIGNERS/CONSULTANTS

Page 1 of 1

Client: West Inhouse Hanford Co.
Est. Field Prep/Sampling Date: 6/30
Work Order #: 15768-07-01-0005-0
Project Contact/Phone #: R. H. Butcher (509) 376-5045
AD Project Manager: [illegible]
QC: [illegible] Del: [illegible] TAT: 35 days
Date Rec'd: 7-1-92 Date Due: 8-5-92
Account #: WS-HANFORD

Refrigerator #		1	H-5		H-4	4	4		1	1		SUB		4
#/Type Container	Liquid	SEE SPECIAL INSTRUCTIONS.												
	Solid													
Volume	Liquid	SEE SPECIAL INSTRUCTIONS.												
	Solid													
Preservatives		SEE SPECIAL INSTRUCTIONS.												
ANALYSES REQUESTED →		ORGANIC							INORG					
		VOA	BNA	Pest/PCB	Herb	Anions	TSS TDS ALK	Anions FOOD	Tot Metal	CN	Specific Cond	TOX		Radio Gross		Dis. Metals

See below

WESTON Analytics Use Only

MATRIX CODES:	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	1 (06/24/92)	2 (06/25/92)	3 (06/24/92)		3 (Anions)	4	5	6 (MASITOX) (3)		6 IOAT	7 ITOX		8 ISUB		9 (MASGROSS)
S - Soil	001	BOGPV1			W	6/27/92	1035	✓	✓	✓		✓	✓	✓	✓		✓	✓		✓		
SE - Sediment	002	BOGPV2																				✓
SO - Solid	003	BOGPV3						✓														
SL - Sludge	004	BOGPW3			W	6-27-92	08:37	✓	✓	✓		✓	✓	✓	✓		✓	✓		✓		
W - Water	005	4																				✓
O - Oil	006	5						✓														
A - Air	007	BOGQ32					0740	✓	✓	✓		✓	✓	✓	✓		✓	✓		✓		
DS - Drum Solids	008	33																				✓
DL - Drum Liquids	009	34						✓														
L - EP/TCLP Leachate		Anions = IC Cl, IC Fl, IC PO4, IC SO4, IC NO2, IC NO3																				
WI - Wipe																						
X - Other																						
F - Fish																						

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

DATE/REVISIONS: RAD INFO TO FOLLOW

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

1. 2. 3. 4. 5. 6.

① MS/MSD Required

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
Emery [illegible]	[illegible]	7-1-92	12:30				
[illegible]					[illegible]	7-1-92	

WESTON Analytics Use Only

Samples were: 1) Shipped ✓ or Hand Delivered ___ Airbill # 2509868207
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: ANIONS.

RFW 21-21-001/A-7/91 ___ L372 ___ L373 ___ L375 ___ L377 ___ L378 Ref# ___ Cooler# SML-3, SML-26 381-596a

9613452.0301

000002

9613452.0302

Westinghouse Hanford Company

CHAIN OF CUSTODY

0000003 92072857

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 200AAMS

Collection Date 6/27/92

Ice Chest No. SML-3

Field Logbook No. EFL 1032

Bill of Lading/Airbill No. 250996920-7

Offsite Property No. W92-0-0399-44

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Sample Identification

B0GFV1

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, ~~BOD, DISOLVED OXYGEN,~~ ANIONS, TSS, ALK
1, 1L, P, WATER, AMMONIA, COD (H2SO4) 6/15/92
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)

B0GFV2

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

B0GFV3

3, 40 ml, WATER, CLP-VOA

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

Relinquished by:	Received by:	Date/Time:
[illegible]	[illegible]	6-27-92 1450
Relinquished by:	Received by:	Date/Time:
	K. Trapp / K. Trapp	6/28/92 0730
Relinquished by:	Received by:	Date/Time:
K. Trapp / K. Trapp		
Relinquished by:	Received by:	Date/Time:
Emery	[illegible]	7-1-92 12:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

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

9613452.0303

8808004

Westinghouse Hanford Company

CHAIN OF CUSTODY

9207L857

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 200AAMS

Collection Date 9/27/92

Ice Chest No. 3ML-26

Field Logbook No. EFL 1032

Bill of Lading/Airbill No. 2509968820-7

Offsite Property No. W92-0-0399-45

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Sample Identification

B06FW3

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, ~~BOD, DISOLVED OXYGEN~~, ANIONS, TSS, ALK
1, 1L, P, WATER, AMMONIA, COD (H2SO4) 4GH 01542
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)

B06FW4

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

B06FW5

3, 40 ml, WATER, CLP-VOA

[] Field Transfer of Custody

Chain of Possession (Sign and Print Names)		
Relinquished by: G B Hamilton	Received by: Rofung	Date/Time: 6/27/92 1755
Relinquished by:	Received by: D. Trapp / K. Trapp	Date/Time: 6/30/92 0730
Relinquished by: K. Trapp / D. Trapp	Received by:	Date/Time:
Relinquished by: Emery	Received by: [illegible]	Date/Time: 7-1-92 1230

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

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

9613452.0304

Westinghouse Hanford Company

CHAIN OF CUSTODY

9207L857

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 200AAMS

Collection Date 6-27-92

Ice Chest No. ~~Oak 6~~ KT 6/30/92 SML-24

Field Logbook No. EFL-1032

Bill of Lading/Airbill No. 250956920-7

Offsite Property No. W92-0-0309-44

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Sample Identification

B0[illegible]

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)

B0[illegible]

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

[illegible]

3, 40 ml, WATER, CLP-VOA

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

Relinquished by:	Received by:	Date/Time:
P. Pitchek / P Celestrate	R Fini	6-27-92 1254
Relinquished by:	Received by:	Date/Time:
	K. Trapp / K Trapp	6/30/92 0730
Relinquished by:	Received by:	Date/Time:
K. Trapp / K. Trapp		
Relinquished by:	Received by:	Date/Time:
Emery	[illegible]	7-1-92 12:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

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

9613452.0305

WESTON• RADIOACTIVE SAMPLE SHIPMENT EVALUATION

I. Sample Custodian: CHARLES S PIPER Date/Time: 2 JUL 92 10:12

RFW Batch #: 9207L 857/859 Logbook #: 2894

Package received from: Client: WESTINGHOUSE 1 JUL 92
Location: HANFORD, WA

Mode of Transport: ___ UPS ___ Fed EX X Emery X Other YELLOW FREIGHT
FOR 9207L 859

The package was received as[1]:

X Exempt Concentration ___ Low Specific Activity ___ Radioactive Yellow II
___ Limited Quantity ___ Radioactive White I ___ Radioactive Yellow III
X Other[2] SEE BELOW

[1] refer to classification description in Section 7.2.1 of OP 21-17-101
[2] indicate any other hazardous DOT classifications

EMERY: 2509866207

Transport Index: YELLOW: YFS3308A42 Security Seal: X Yes ___ No

II. Package Surveys:

External Alpha (α) Contamination Survey

Ludlum Model 3 survey meter with Model 43-5 alpha scintillation probe
Serial #: 58660 Calibration Date: 3 APR 92
Background reading: 0 Package Survey: 0

External Gamma (γ) Exposure Rate Survey

Ludlum Model 9 Micro-R meter
Serial #: 44415 Calibration Date: 22 JUN 92 ~~20 APR~~ 20 SEP 91
Background reading: 7 Package Survey: 7

III. Package Evaluation and Documentation:
(Samples are itemized on side B of this form.)

The samples were: X NOT RADIOACTIVE
___ RADIOACTIVE
___ TOO RADIOACTIVE TO HANDLE AT LAB

Note: One radioactive sample requires that RADIOACTIVE be indicated above. Refer to Section 7.2.2 of OP 21-17-101 for the definition of radioactive samples.

After screening, the package was confirmed as:

X Exempt Concentration ___ Low Specific Activity ___ Radioactive Yellow II
___ Limited Quantity ___ Radioactive White I ___ Radioactive Yellow III
___ Other ___

List any discrepancies or comments: YELLOW FREIGHT HAD THE FOLLOWING LABELS: 'CORROSIVE', 'OXIDIZER', 'NITRITING ACID MIXTURE (WITH MORE THAN 50% NITRIC ACID) UN1796'

Completion By/Date/Time: CHARLES S PIPER 1 JUL 92 14:30

Reviewed By/Date: 7-6-92

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

9613452.0306

WESTINGHOUSE 000007

WESTON® RADIOACTIVE SAMPLE SHIPMENT EVALUATION

Batch # 92071 857/859 TRANSFERRED FROM LOGBOOK: 2826 ~~Initiated By/Date/Time:~~ CSP 23JUL92

Sample ID	Form (liq/sol)	RFW ID	Gamma Survey (microR/hr)	Alpha Survey (cpm)	Mass (g)	α + β activity nCi/g	α + β activity nCi	Tritium nCi/g	Tritium nCi
92217-01, F18	LIQ	859-001	5	0	N/A	<0.005	N/A	N/A	N/A
B06 PW3		857-004							
PW5		006							
Q32		007							
Q34		009							
PV1		001							
PV3		003							

CSP 23JUL92

CSP 23JUL92

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

Comments:

Completed By/Date/Time: [signature] 23JUL92 10:20

Reviewed By/Date: [signature] 7-6-92

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

Logbook # 2894 Page 24 B

9613452-0397 92071857

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

EMERY WORLDWIDE — A CF Company

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

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

Shipper's Account Number: 150281585

Date: 6/30/92 | Origin: PSC | Shipment Number: 250986820

To: JOSIE KING
RF WESTON INC
208 WELSH POOL ROAD
lionville PA 19341

Tariff Dest. | Gateway

Check to 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

WESTINGHOUSE HANFORD COMPANY SHIPPING DEPT
DEPARTMENT OF ENERGY C/O
WESTINGHOUSE HANFORD
BLDG 1163
2355 STEVENS DRIVE
RICHLAND WA Canada ☐

Customer's Reference Numbers: 232 PB23B W92-0-0399-44 99352

Consignee's Account Number: E 19341

Description	Pcs.	L	W	H	Total Pieces	Total Weight
GROUNDWATER SAMPLES COOLER ID# SML-3,SML-24 SML-26	3				3	246

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

Declared Value $

25 0986820 7

Remarks: NIGHT DELIVERY NATURE SECURITY SERVICE

Zip Ship ☐ — For shipments within the 5d 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 ☐

3PHL A

Terms and Conditions on Back

International Shipments: Commodity Code

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

International Customs Value | International Insurance

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

EMERY WORLDWIDE — A CF Company

92071857 92071859

DATE: 6/30/92 SHIPMENT NO. 250986820

SHIPPER: WESTINGHOUSE SHIPPING DEPT (509)

REFERENCE NO.: W92-0-0399-44

SIGNATURE AND TALLY RECORD

0029-46 (8/89) Litho USA

SHIPPER NAME AND ADDRESS
WESTINGHOUSE SHIPPING DEPT (509)376-6665
G2-06 US DEPARTMENT OF ENERGY C?O
WESTINGHOUSE HA NFORD COMPANY
2355 STEVENS DRIVE 1163 BUILDING
PO BOX 1970
RICHLAND WA 99352 W92-0-0399-44

CONSIGNEE NAME AND ADDRESS
JOSIE KING
RF WESTON INC
208 WELSH POOL ROAD
LIONVILLE PA 19341-1313

Pieces	Weight	Description/Marks	Emery Authorization No.
3	246	GROUNDWATER SAMPLES COOLER ID# SML-3,SML-24,SML-26	

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.				
7.	WD SNYDER EQ/PIL		[illegible]	1022
8.				

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

RFW Batch Number: 9207L857 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 07/30/92 11:34 Page: 1a

	Cust ID:	B06PV1	B06PV1	B06PV3	B06PW3	B06PW5	B06Q32
Sample Information	RFW#:	001	001 DL	003	004	006	007
	Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
	D.F.:	1.00	5.00	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	103 %	101 %	102 %	107 %	101 %	103 %
	Bromofluorobenzene	94 %	97 %	96 %	91 %	96 %	97 %
	1,2-Dichloroethane-d4	96 %	98 %	100 %	81 %	98 %	102 %
Chloromethane		10 U	NA	10 U	10 U	10 U	10 U
Bromomethane		10 U	NA	10 U	10 U	10 U	10 U
Vinyl Chloride		10 U	NA	10 U	10 U	10 U	10 U
Chloroethane		10 U	NA	10 U	10 U	10 U	10 U
Methylene Chloride		11 B	NA	11 B	11 B	12 B	10 B
Acetone		18 B	NA	6 JB	6 JB	7 JB	10 B
Carbon Disulfide		5 U	NA	5 U	5 U	5 U	5 U
1,1-Dichloroethene		5 U	NA	5 U	5 U	5 U	5 U
1,1-Dichloroethane		5 U	NA	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)		5 U	NA	5 U	5 U	5 U	5 U
Chloroform		3 J	NA	5 U	1 J	5 U	5 U
1,2-Dichloroethane		5 U	NA	5 U	5 U	5 U	5 U
2-Butanone		7 J	NA	10 U	4 J	10 U	10 U
1,1,1-Trichloroethane		5 U	NA	5 U	5 U	5 U	5 U
Carbon Tetrachloride		E	790	5 U	7	5 U	5 U
Vinyl Acetate		10 U	NA	10 U	10 U	10 U	10 U
Bromodichloromethane		5 U	NA	5 U	5 U	5 U	5 U
1,2-Dichloropropane		5 U	NA	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene		5 U	NA	5 U	5 U	5 U	5 U
Trichloroethene		1 J	NA	5 U	5 U	5 U	5 U
Dibromochloromethane		5 U	NA	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane		5 U	NA	5 U	5 U	5 U	5 U
Benzene		5 U	NA	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene		5 U	NA	5 U	5 U	5 U	5 U
Bromoform		5 U	NA	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone		10 U	NA	10 U	10 U	10 U	10 U
2-Hexanone		10 U	NA	10 U	10 U	10 U	10 U
Tetrachloroethene		5 U	NA	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane		5 U	NA	5 U	5 U	5 U	5 U

*= Outside of EPA CLP QC limits.

9613452.0308
000010

RFW Batch Number: 9207L857 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Page: 1b

Cust ID:	B06PV1	B06PV1	B06PV3	B06PW3	B06PW5	B06Q32
RFW#:	001	001 DL	003	004	006	007
Toluene	5 U	NA	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	NA	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	NA	5 U	5 U	5 U	5 U
Styrene	5 U	NA	5 U	5 U	5 U	5 U
Xylene (total)	5 U	NA	5 U	5 U	5 U	5 U

*= Outside of EPA CLP QC limits.

9613452.0309 0000011

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

RFW Batch Number: 9207L857 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 07/30/92 11:34 Page: 2a

	Cust ID:	BO6Q32	BO6Q32	BO6Q34	VBLK	VBLK
Sample Information	RFW#:	007 MS	007 MSD	009	92LVB118-MB1	92LVB119-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	Toluene-d8	97 %	96 %	101 %	103 %	101 %
	Bromofluorobenzene	93 %	93 %	95 %	96 %	95 %
	1,2-Dichloroethane-d4	100 %	99 %	104 %	101 %	101 %
Chloromethane		10 U	10 U	10 U	10 U	10 U
Bromomethane		10 U	10 U	10 U	10 U	10 U
Vinyl Chloride		10 U	10 U	10 U	10 U	10 U
Chloroethane		10 U	10 U	10 U	10 U	10 U
Methylene Chloride		5 B	6 B	12 B	7	3 J
Acetone		8 JB	6 JB	8 JB	7 J	4 J
Carbon Disulfide		5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene		83 %	81 %	5 U	5 U	5 U
1,1-Dichloroethane		5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)		5 U	5 U	5 U	5 U	5 U
Chloroform		5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane		5 U	5 U	5 U	5 U	5 U
2-Butanone		10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane		5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride		5 U	5 U	5 U	5 U	5 U
Vinyl Acetate		10 U	10 U	10 U	10 U	10 U
Bromodichloromethane		5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane		5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene		5 U	5 U	5 U	5 U	5 U
Trichloroethene		105 %	105 %	5 U	5 U	5 U
Dibromochloromethane		5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane		5 U	5 U	5 U	5 U	5 U
Benzene		94 %	94 %	5 U	5 U	5 U
Trans-1,3-Dichloropropene		5 U	5 U	5 U	5 U	5 U
Bromoform		5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone		10 U	10 U	10 U	10 U	10 U
2-Hexanone		10 U	10 U	10 U	10 U	10 U
Tetrachloroethene		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

*= Outside of EPA CLP QC limits.

9613452.0310 000012

Cust ID:	BO6Q32	BO6Q32	BO6Q34	VBLK	VBLK
RFW#:	007 MS	007 MSD	009	92LVB118-MB1	92LVB119-MB1
Toluene	99 %	99 %	5 U	5 U	5 U
Chlorobenzene	101 %	101 %	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U	5 U
Xylene (total)	5 U	5 U	5 U	5 U	5 U

*= Outside of EPA CLP QC limits.

9613452.0311 0000013

9613452.0312

1A

VOLATILE ORGANICS ANALYSIS SHEET 000029

CLIENT SAMPLE NO.

B06PV1

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-001

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

Lab File ID: B070807

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____

Date Analyzed: 07/08/92

Column: (pack/cap) CAP

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	11	B
67-64-1	Acetone	18	B
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	3	J
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	7	J
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride		E
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	1	J
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

9613452.0313

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

0000030

CLIENT SAMPLE NO.

B06PV1

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-001

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

Lab File ID: B070807

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____

Date Analyzed: 07/08/92

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

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

9613452.0314

1A

VOLATILE ORGANICS ANALYSIS SHEET 0000046

CLIENT SAMPLE NO.

B06PV1DL

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-001 DL

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

Lab File ID: B070906

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____

Date Analyzed: 07/09/92

Column: (pack/cap) CAP

Dilution Factor: 5.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	NA	
74-83-9	Bromomethane	NA	
75-01-4	Vinyl Chloride	NA	
75-00-3	Chloroethane	NA	
75-09-2	Methylene Chloride	NA	
67-64-1	Acetone	NA	
75-15-0	Carbon Disulfide	NA	
75-35-4	1,1-Dichloroethene	NA	
75-34-3	1,1-Dichloroethane	NA	
540-59-0	1,2-Dichloroethene (total)	NA	
67-66-3	Chloroform	NA	
107-06-2	1,2-Dichloroethane	NA	
78-93-3	2-Butanone	NA	
71-55-6	1,1,1-Trichloroethane	NA	
56-23-5	Carbon Tetrachloride	790	
108-05-4	Vinyl Acetate	NA	
75-27-4	Bromodichloromethane	NA	
78-87-5	1,2-Dichloropropane	NA	
10061-01-5	cis-1,3-Dichloropropene	NA	
79-01-6	Trichloroethene	NA	
124-48-1	Dibromochloromethane	NA	
79-00-5	1,1,2-Trichloroethane	NA	
71-43-2	Benzene	NA	
10061-02-6	Trans-1,3-Dichloropropene	NA	
75-25-2	Bromoform	NA	
108-10-1	4-Methyl-2-pentanone	NA	
591-78-6	2-Hexanone	NA	
127-18-4	Tetrachloroethene	NA	
79-34-5	1,1,2,2-Tetrachloroethane	NA	
108-88-3	Toluene	NA	
108-90-7	Chlorobenzene	NA	
100-41-4	Ethylbenzene	NA	
100-42-5	Styrene	NA	
1330-20-7	Xylene (total)	NA	

9613452.0315

1A

VOLATILE ORGANICS ANALYSIS SHEET

0000052

CLIENT SAMPLE NO.

B06PV3

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-003

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

Lab File ID: B070808

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____

Date Analyzed: 07/08/92

Column: (pack/cap) CAP

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	11	B
67-64-1	Acetone	6	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

9615452.0316

1E

0000053

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B06PV3

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-003

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

Lab File ID: B070808

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____

Date Analyzed: 07/08/92

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

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

9613452.0317

1A

VOLATILE ORGANICS ANALYSIS SHEET

000061

CLIENT SAMPLE NO.

BO6PW3

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-004

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

Lab File ID: B070813

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____

Date Analyzed: 07/08/92

Column: (pack/cap) CAP

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	11	B
67-64-1	Acetone	6	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	1	J
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	4	J
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	7	
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

9613452.0318

1E

000062

CLIENT SAMPLE NO.

BO6PW3

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-004

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

Lab File ID: B070813

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____

Date Analyzed: 07/08/92

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

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

9613452.0319

1A

VOLATILE ORGANICS ANALYSIS SHEET 000076

CLIENT SAMPLE NO.

B06PW5

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-006

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

Lab File ID: B070814

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____

Date Analyzed: 07/08/92

Column: (pack/cap) CAP

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	12	B
67-64-1	Acetone	7	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

9615452.0320
1E

0000077

CLIENT SAMPLE NO.

BO6PW5

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-006

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

Lab File ID: B070814

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____

Date Analyzed: 07/08/92

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

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

9613452.0321

1A

VOLATILE ORGANICS ANALYSIS SHEET 000085

CLIENT SAMPLE NO.

B06Q32

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-007

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

Lab File ID: B070815

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____

Date Analyzed: 07/08/92

Column: (pack/cap) CAP

Dilution Factor: 1.00

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

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

9613452.0322
1E

0000086

CLIENT SAMPLE NO.

BO6Q32

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-007

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

Lab File ID: B070815

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____

Date Analyzed: 07/08/92

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

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

9613452.0323

1A

VOLATILE ORGANICS ANALYSIS SHEET 000094

CLIENT SAMPLE NO.

B06Q34

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-009

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

Lab File ID: B070816

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____

Date Analyzed: 07/08/92

Column: (pack/cap) CAP

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	12	B
67-64-1	Acetone	8	JB
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	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

9613452.0324

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000095

CLIENT SAMPLE NO.

B06Q34

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-009

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

Lab File ID: B070816

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____

Date Analyzed: 07/08/92

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

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

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

RFW Batch Number: 9207L857 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 07/24/92 16:37 Page: 1a

	Cust ID:	B06PV1		B06PW3		B06PW3		B06PW3		B06Q32		SBLK	
Sample Information	RFW#:	001		004		004 MS		004 MSD		007		92LE0995-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	66	%	69	%	60	%	62	%	62	%	72	%
	2-Fluorobiphenyl	81	%	78	%	76	%	76	%	72	%	81	%
	p-Terphenyl-d14	92	%	92	%	88	%	91	%	115	%	92	%
	Phenol-d5	32	%	32	%	31	%	34	%	27	%	33	%
	2-Fluorophenol	45	%	49	%	44	%	46	%	43	%	42	%
	2,4,6-Tribromophenol	69	%	59	%	93	%	90	%	68	%	63	%
			fl		fl		fl		fl		fl		fl
Phenol		10	U	10	U	33	%	37	%	10	U	10	U
bis(2-Chloroethyl)ether		10	U	10	U	11	U	11	U	10	U	10	U
2-Chlorophenol		10	U	10	U	62	%	68	%	10	U	10	U
1,3-Dichlorobenzene		10	U	10	U	11	U	11	U	10	U	10	U
1,4-Dichlorobenzene		10	U	10	U	62	%	63	%	10	U	10	U
Benzyl alcohol		10	U	10	U	11	U	11	U	10	U	10	U
1,2-Dichlorobenzene		10	U	10	U	11	U	11	U	10	U	10	U
2-Methylphenol		10	U	10	U	11	U	11	U	10	U	10	U
bis(2-Chloroisopropyl)ether		10	U	10	U	11	U	11	U	10	U	10	U
4-Methylphenol		10	U	10	U	11	U	11	U	10	U	10	U
N-Nitroso-Di-n-propylamine		10	U	10	U	62	%	62	%	10	U	10	U
Hexachloroethane		10	U	10	U	11	U	11	U	10	U	10	U
Nitrobenzene		10	U	10	U	11	U	11	U	10	U	10	U
Isophorone		10	U	10	U	11	U	11	U	10	U	10	U
2-Nitrophenol		10	U	10	U	11	U	11	U	10	U	10	U
2,4-Dimethylphenol		10	U	10	U	11	U	11	U	10	U	10	U
Benzoic acid		50	U	50	U	55	U	55	U	50	U	50	U
bis(2-Chloroethoxy)methane		10	U	10	U	11	U	11	U	10	U	10	U
2,4-Dichlorophenol		10	U	10	U	11	U	11	U	10	U	10	U
1,2,4-Trichlorobenzene		10	U	10	U	64	%	66	%	10	U	10	U
Naphthalene		10	U	10	U	11	U	11	U	10	U	10	U
4-Chloroaniline		10	U	10	U	11	U	11	U	10	U	10	U
Hexachlorobutadiene		10	U	10	U	11	U	11	U	10	U	10	U
4-Chloro-3-methylphenol		10	U	10	U	74	%	77	%	10	U	10	U
2-Methylnaphthalene		10	U	10	U	11	U	11	U	10	U	10	U
Hexachlorocyclopentadiene		10	U	10	U	11	U	11	U	10	U	10	U

*= Outside of EPA CLP QC limits.

9613452.0325
0010005

Cust ID:	B06PV1		B06PW3		B06PW3		B06PW3		B06Q32		SBLK	
RFW#:	001		004		004 MS		004 MSD		007		92LE0995-MB1	
2,4,6-Trichlorophenol	10	U	10	U	11	U	11	U	10	U	10	U
2,4,5-Trichlorophenol	50	U	50	U	55	U	55	U	50	U	50	U
2-Chloronaphthalene	10	U	10	U	11	U	11	U	10	U	10	U
2-Nitroaniline	50	U	50	U	55	U	55	U	50	U	50	U
Dimethylphthalate	10	U	10	U	11	U	11	U	10	U	10	U
Acenaphthylene	10	U	10	U	11	U	11	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	11	U	11	U	10	U	10	U
3-Nitroaniline	50	U	50	U	55	U	55	U	50	U	50	U
Acenaphthene	10	U	10	U	89	%	88	%	10	U	10	U
2,4-Dinitrophenol	50	U	50	U	55	U	55	U	50	U	50	U
4-Nitrophenol	50	U	50	U	34	%	39	%	50	U	50	U
Dibenzofuran	10	U	10	U	11	U	11	U	10	U	10	U
2,4-Dinitrotoluene	10	U	10	U	102 *	%	103 *	%	10	U	10	U
Diethylphthalate	10	U	10	U	3	J	11	U	10	U	10	U
4-Chlorophenyl-phenylether	10	U	10	U	11	U	11	U	10	U	10	U
Fluorene	10	U	10	U	11	U	11	U	10	U	10	U
4-Nitroaniline	50	U	50	U	55	U	55	U	50	U	50	U
4,6-Dinitro-2-methylphenol	50	U	50	U	55	U	55	U	50	U	50	U
N-Nitrosodiphenylamine (1)	10	U	10	U	11	U	11	U	10	U	10	U
4-Bromophenyl-phenylether	10	U	10	U	11	U	11	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	11	U	11	U	10	U	10	U
Pentachlorophenol	50	U	50	U	55	%	69	%	50	U	50	U
Phenanthrene	10	U	10	U	11	U	11	U	10	U	10	U
Anthracene	10	U	10	U	11	U	11	U	10	U	10	U
Di-n-Butylphthalate	1	J	10	U	1	JB	1	JB	1	J	10	U
Fluoranthene	10	U	10	U	11	U	11	U	10	U	10	U
Pyrene	10	U	10	U	112	%	111	%	10	U	10	U
Butylbenzylphthalate	10	U	10	U	11	U	11	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	22	U	22	U	20	U	20	U
Benzo(a)anthracene	10	U	10	U	11	U	11	U	10	U	10	U
Chrysene	10	U	10	U	11	U	11	U	10	U	10	U
bis(2-Ethylhexyl)phthalate	9	JB	10	B	22	B	10	JB	16	B	6	J
Di-n-Octyl phthalate	10	U	10	U	11	U	11	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	11	U	11	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	11	U	11	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	11	U	11	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	11	U	11	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	11	U	11	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	11	U	11	U	10	U	10	U

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

9613452.0326

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 07-01-92
RFW #: 9207L857, SEMIVOLATILE
W.O. #: 6168-02-01

NARRATIVE

The set of samples consisted of three (3) water samples collected on 06-27-92.

The samples were extracted on 07-06,08-92 and analyzed according to criteria set forth in CLP SOW 02/88 (Rev. 05/89) for TCL Semivolatile target compounds on 07-06,07,17,18-92.

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

1. Samples B06PW3 MS and MSD were extracted outside the holding time.

2. Non-target compounds were detected in the laboratory blank 92LE1017-MB1.

3. All surrogate recoveries were within EPA QC limits.

4. Two (2) of twenty-two (22) matrix spike recoveries were outside EPA QC limits.

5. Three (3) of twenty-two (22) blank spike recoveries were outside EPA QC limits.

6. The laboratory blank 92LE0995-MB1 contained the common contaminant Bis(2-ethylhexyl) phthalate at a level less than the CRQL. The laboratory blank 92LE1017-MB1 contained the common contaminants Di-n-Butylphthalate and Bis(2-ethylhexyl)phthalate at levels less than 2x the CRQL.

7. All internal standard areas and retention time criteria were met.

08.03.92
Date

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

sma/bna/07-857b.cn

9613452.0328

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B06PV1

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-001

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

Lab File ID: S070619

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____ dec.

Date Extracted: 07/06/92

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 07/07/92

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

9613452.0329

1C

000032

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B06PV1

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-001

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

Lab File ID: S070619

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____ dec.

Date Extracted: 07/06/92

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 07/07/92

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	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	9	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	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613452.0330 000033

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B06PV1

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 9207L857-001

Sample wt/vol: 990 (g/mL) ML Lab File ID: S070619

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ dec. Date Extracted: 07/06/92

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

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

Number TICs found: 0

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

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

9613452.0331 000044

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

BO6PW3

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-004

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

Lab File ID: S070622

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____ dec.

Date Extracted: 07/06/92

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 07/07/92

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

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1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B06PW3

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 9207L857-004

Sample wt/vol: 990 (g/mL) ML Lab File ID: S070622

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ dec. Date Extracted: 07/06/92

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

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	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	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

9613452.0333 ก๐๐๐๐๔๕

1F

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BO6PW3

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 9207L857-004

Sample wt/vol: 990 (g/mL) ML Lab File ID: S070622

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ dec. Date Extracted: 07/06/92

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

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

Number TICs found: 0

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

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

9613452.0334

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B06Q32

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-007

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

Lab File ID: S070623

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____ dec.

Date Extracted: 07/06/92

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 07/07/92

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

9613452.0335

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B06Q32

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-007

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

Lab File ID: S070623

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____ dec.

Date Extracted: 07/06/92

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 07/07/92

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	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	16	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

9613452.0336

1F

0000057

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06Q32

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-007

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

Lab File ID: S070623

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____ dec.

Date Extracted: 07/06/92

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 07/07/92

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

Dilution Factor: 1.00

Number TICs found: 0

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

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

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

RFW Batch Number: 9207L857 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 08/04/92 11:23 Page: 1

	Cust ID:	B06PV1	B06PV1	B06PV1	B06PW3	B06Q32	PBLK
Sample Information	RFW#:	001	001 MS	001 MSD	004	007	92LE0990-MB1
	Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
	D.F.:	2.00	2.00	2.00	1.00	1.00	1.00
	Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Surrogate: Di-n-butylchlorendate		141 %	89 %	96 %	60 %	77 %	57 %
		fl	fl	fl	fl	fl	fl
Alpha-BHC		0.10 U	0.20 U	0.20 U	0.050 U	0.050 U	0.050 U
Beta-BHC		0.10 U	0.20 U	0.20 U	0.050 U	0.050 U	0.050 U
Delta-BHC		0.10 U	0.20 U	0.20 U	0.050 U	0.050 U	0.050 U
gamma-BHC (Lindane)		0.10 U	65 %	55 * %	0.050 U	0.050 U	0.050 U
Heptachlor		0.10 U	75 %	60 %	0.050 U	0.050 U	0.050 U
Aldrin		0.10 U	75 %	60 %	0.050 U	0.050 U	0.050 U
Heptachlor epoxide		0.10 U	0.20 U	0.20 U	0.050 U	0.050 U	0.050 U
Endosulfan I		0.10 U	0.20 U	0.20 U	0.050 U	0.050 U	0.050 U
Dieldrin		0.20 U	74 %	64 %	0.10 U	0.10 U	0.10 U
4,4'-DDE		0.20 U	0.40 U	0.40 U	0.10 U	0.10 U	0.10 U
Endrin		0.20 U	68 %	50 * %	0.10 U	0.10 U	0.10 U
Endosulfan II		0.20 U	0.40 U	0.40 U	0.10 U	0.10 U	0.10 U
4,4'-DDD		0.20 U	0.40 U	0.40 U	0.10 U	0.10 U	0.10 U
Endosulfan sulfate		0.20 U	0.40 U	0.40 U	0.10 U	0.10 U	0.10 U
4,4'-DDT		0.20 U	74 %	60 %	0.10 U	0.10 U	0.10 U
Methoxychlor		1.0 U	2.0 U	2.0 U	0.50 U	0.50 U	0.50 U
Endrin ketone		0.20 U	0.40 U	0.40 U	0.10 U	0.10 U	0.10 U
alpha-Chlordane		1.0 U	2.0 U	2.0 U	0.50 U	0.50 U	0.50 U
gamma-Chlordane		1.0 U	2.0 U	2.0 U	0.50 U	0.50 U	0.50 U
Toxaphene		2.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U
Aroclor-1016		1.0 U	2.0 U	2.0 U	0.50 U	0.50 U	0.50 U
Aroclor-1221		1.0 U	2.0 U	2.0 U	0.50 U	0.50 U	0.50 U
Aroclor-1232		1.0 U	2.0 U	2.0 U	0.50 U	0.50 U	0.50 U
Aroclor-1242		1.0 U	2.0 U	2.0 U	0.50 U	0.50 U	0.50 U
Aroclor-1248		1.0 U	2.0 U	2.0 U	0.50 U	0.50 U	0.50 U
Aroclor-1254		2.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U
Aroclor-1260		2.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 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

9613452.0337

9613452.0338 11A

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 07-01-92
RFW #: 9207L857, PEST/PCB
W.O. #: 6168-02-01

NARRATIVE

The set of samples consisted of three (3) water samples collected on 06-27-92.

The samples were extracted on 07-02-92 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 SP2250/2401 column on 07-21-92 at 07:41 and 20:03 and on the SP2100 column on 07-20-92 at 10:27 and 11:19 and on 07-21-92 at 00:03, 07:43 and 20:05.

   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.

11 B

WESTON
MANAGERS DESIGNERS CONSULTANTS

5. Two (2) of twelve (12) matrix spike recoveries were outside EPA QC limits. The matrix spike recoveries for Gamma-BHC (55%) and Endrin (50%) were outside the EPA QC limit of 56%.

6. Two (2) of twelve (12) blank spike recoveries were outside EPA QC limits. The blank spike recoveries for Gamma-BHC (40% and 55%) were outside the EPA QC limit of 56%.

7. Sample B06PV1 and its associated matrix spike samples required two-fold dilutions because they contained high levels of non-target compounds.

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

Jack R. Tuschall, Ph.D. 08.11.92
Date
Laboratory Manager
Lionville Analytical Laboratory

sma/pcb/07-857pp.cn

9613452.0340

1D

PESTICIDE ORGANICS ANALYSIS SHEET 000019

CLIENT SAMPLE NO.

B06PV1

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-001

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

Lab File ID: 07199203.68

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____ dec.

Date Extracted: 07/02/92

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 07/21/92

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

Dilution Factor: 2.00

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

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

DER 8/6/92

9613452.0341

1D

PESTICIDE ORGANICS ANALYSIS SHEET 000024

CLIENT SAMPLE NO.

BO6PW3

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER

Lab Sample ID: 9207L857-004

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

Lab File ID: 07199203.61

Level: (low/med) LOW

Date Received: 07/01/92

% Moisture: not dec. _____ dec.

Date Extracted: 07/02/92

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 8/6/92

FORM 1 PEST 12/88 Rev.

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1D

PESTICIDE ORGANICS ANALYSIS SHEET

0000029 CLIENT SAMPLE NO.

B06Q32

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

Client: WESTINGHOUSE HANFORD

Matrix: WATER Lab Sample ID: 9207L857-007

Sample wt/vol: 990 (g/mL) ML Lab File ID: 07199203.62

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ dec. Date Extracted: 07/02/92

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 8/6/92

9613452.0343

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLE(S) RECEIVED:** 07-01-92
RFW #: 9207L857
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 Nitrate by IC, Nitrite by IC and Phosphate by IC which were received past hold and Total Organic Halides which were 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% guidance limits. All %RPD were within the 20% guidance limit.

6. Replicate results are summarized on the Inorganic Precision Report contained within this document. Results were within the 20% RPD guidance limit with the exception of Total Organic Halides.

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).

07.31.92

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

AUG 1992
RECEIVED
OSM DMO

pas/i07-857

ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 07/30/92

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

WESTON BATCH #: 9207L857

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	B06PV1	Alkalinity	110	MG/L	2.0
		Chloride by IC	74.8	MG/L	5.0
		Fluoride by IC	0.73	MG/L	0.50
		Nitrite by IC	0.25 u	MG/L	0.25
		Nitrate by IC	121	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	75.3	MG/L	5.0
		Ammonia, as N	0.10 u	MG/L	0.10
		Total Organic Carbon	1.9	MG/L	0.50
		Total Dissolved Solids	534	MG/L	5.0
		Total Organic Halides	163	UG/L	20.0
		Total Suspended Solids	21.0	MG/L	5.0
-004	B06PW3	Alkalinity	76.0	MG/L	2.0
		Chloride by IC	24.9	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	338	MG/L	25.0
		Chemical Oxygen Demand	5.0 u	MG/L	5.0
		Phosphate by IC	0.25 u	MG/L	0.25
		Sulfate by IC	69.0	MG/L	5.0
		Ammonia, as N	0.10 u	MG/L	0.10
		Total Organic Carbon	1.5	MG/L	0.50
		Total Dissolved Solids	759	MG/L	5.0
		Total Organic Halides	29.1	UG/L	5.0
		Total Suspended Solids	7.0	MG/L	5.0
-007	B06Q32	Alkalinity	110	MG/L	2.0
		Chloride by IC	28.4	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	1.6	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	17.4	MG/L	5.0
		Ammonia, as N	0.10 u	MG/L	0.10
		Total Organic Carbon	0.67	MG/L	0.50
		Total Dissolved Solids	304	MG/L	5.0
		Total Organic Halides	31.8	UG/L	5.0

ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 07/30/92

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

WESTON BATCH #: 9207L857

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-007	B06Q32	Total Suspended Solids	7.0	MG/L	5.0

Roy F. Weston, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD CO. **SAMPLES RECEIVED:** 07/01/92
RFW #: 9207L857
W.O. #: 6168-02-01

METALS NARRATIVE

The set of samples consisted of six (6) water samples collected on 06/27/92.

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 arsenic, selenium 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. Selenium sample results were calculated by the method of standard addition (MSA). All corresponding samples were flagged with a "S" according to CLP protocol.

9. For MSA, results reported on Form 8 are calculated from absorbance values. Results reported on other forms are based on concentration. As indicated in the SOWILM01.0, page B-32, differences due to rounding may be found between the MSA values on Form 8 and the results reported on the other forms.

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MANAGERS DESIGNERS CONSULTANTS

10. 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.

11. 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).

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

13. 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.

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

08.06.92
Date

mlj\ clp-met.nar

9613452.0348

ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 08/05/92

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

WESTON BATCH #: 9207L857

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-001	B06PV1	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	78900		UG/L	5000
		Cadmium, Total	5.0	u	UG/L	5.0
		Cobalt, Total	50.0	u	UG/L	50.0
		Chromium, Total	12.0		UG/L	10.0
		Copper, Total	25.0	u	UG/L	25.0
		Iron, Total	1430		UG/L	100
		Mercury, Total	0.20	u	UG/L	0.20
		Potassium, Total	5120		UG/L	5000
		Magnesium, Total	26100		UG/L	5000
		Manganese, Total	27.9		UG/L	15.0
		Sodium, Total	33800		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 08/05/92

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

WESTON BATCH #: 9207L857

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-002	BO6PV2	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	79300		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	5230		UG/L	5000
		Magnesium, Soluble	26100		UG/L	5000
		Manganese, Soluble	15.0	u	UG/L	15.0
		Sodium, Soluble	33900		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

9613452.0350

ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 08/05/92

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

WESTON BATCH #: 9207L857

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-004	B06PW3	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	101000		UG/L	5000
		Cadmium, Total	5.0	u	UG/L	5.0
		Cobalt, Total	50.0	u	UG/L	50.0
		Chromium, Total	63.5		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	5000	u	UG/L	5000
		Magnesium, Total	41100		UG/L	5000
		Manganese, Total	15.0	u	UG/L	15.0
		Sodium, Total	15200		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 08/05/92

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

WESTON BATCH #: 9207L857

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-005	BO6PW4	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	101000		UG/L	5000
		Cadmium, Soluble	5.0	u	UG/L	5.0
		Cobalt, Soluble	50.0	u	UG/L	50.0
		Chromium, Soluble	60.6		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	40700		UG/L	5000
		Manganese, Soluble	15.0	u	UG/L	15.0
		Sodium, Soluble	15100		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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ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 08/05/92

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

WESTON BATCH #: 9207L857

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-007	BO6Q32	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	34100		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	110		UG/L	100
		Mercury, Total	0.20	u	UG/L	0.20
		Potassium, Total	7330		UG/L	5000
		Magnesium, Total	9630		UG/L	5000
		Manganese, Total	15.0	u	UG/L	15.0
		Sodium, Total	17300		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

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ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 08/05/92

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

WESTON BATCH #: 9207L857

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-008	BO6Q33	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	32900		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	6780		UG/L	5000
		Magnesium, Soluble	9300		UG/L	5000
		Manganese, Soluble	15.0	u	UG/L	15.0
		Sodium, Soluble	16700		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

9613452.0354

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06PV1

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP857

Matrix (soil/water): WATER Lab Sample ID: 920785701

Level (low/med): LOW Date Received: 7/01/92

% 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	38.60	B		P
7440-36-0	Antimony	44.00	U		P
7440-38-2	Arsenic	2.10	B	NW	F
7440-39-3	Barium	65.50	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	78900.00		E	P
7440-47-3	Chromium	12.00			P
7440-48-4	Cobalt	6.00	U		P
7440-50-8	Copper	5.00	U		P
7439-89-6	Iron	1430.00		E	P
7439-92-1	Lead	2.00	U	W	F
7439-95-4	Magnesium	26100.00		E	P
7439-96-5	Manganese	27.90			P
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel	18.00	U		P
7440-09-7	Potassium	5120.00			P
7782-49-2	Selenium	2.60	B	NW	F
7440-22-4	Silver	6.00	U	N	P
7440-23-5	Sodium	33800.00		E	P
7440-28-0	Thallium	2.00	U	W	F
7440-62-2	Vanadium	46.20	B		P
7440-66-6	Zinc	7.80	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.

B06PV2

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP857

Matrix (soil/water): WATER Lab Sample ID: 920785702

Level (low/med): LOW Date Received: 7/01/92

% 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	N	F
7440-39-3	Barium	60.40	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	79300.00		E	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	19.00	U	E	P
7439-92-1	Lead	2.00	U	W	F
7439-95-4	Magnesium	26100.00		E	P
7439-96-5	Manganese	2.60	B		P
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel	18.00	U		P
7440-09-7	Potassium	5230.00			P
7782-49-2	Selenium	2.60	B	NW	F
7440-22-4	Silver	6.00	U	N	P
7440-23-5	Sodium	33900.00		E	P
7440-28-0	Thallium	2.00	U	W	F
7440-62-2	Vanadium	45.70	B		P
7440-66-6	Zinc	6.00	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

9613452.0356

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06PW3

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP857

Matrix (soil/water): WATER Lab Sample ID: 920785704

Level (low/med): LOW Date Received: 7/01/92

% 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	N	F
7440-39-3	Barium	65.90	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	101000.00		E	P
7440-47-3	Chromium	63.50			P
7440-48-4	Cobalt	6.00	U		P
7440-50-8	Copper	5.00	U		P
7439-89-6	Iron	42.70	B	E	P
7439-92-1	Lead	2.00	U		F
7439-95-4	Magnesium	41100.00		E	P
7439-96-5	Manganese	2.00	U		P
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel	18.00	U		P
7440-09-7	Potassium	4920.00	B		P
7782-49-2	Selenium	4.50	B	NS	F
7440-22-4	Silver	6.00	U	N	P
7440-23-5	Sodium	15200.00		E	P
7440-28-0	Thallium	2.00	U		F
7440-62-2	Vanadium	47.00	B		P
7440-66-6	Zinc	6.00	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

9613452.0357

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06PW4

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP857

Matrix (soil/water): WATER Lab Sample ID: 920785705

Level (low/med): LOW Date Received: 7/01/92

% 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	N	F
7440-39-3	Barium	65.50	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	101000.00		E	P
7440-47-3	Chromium	60.60			P
7440-48-4	Cobalt	6.00	U		P
7440-50-8	Copper	5.00	U		P
7439-89-6	Iron	23.50	B	E	P
7439-92-1	Lead	2.00	U		F
7439-95-4	Magnesium	40700.00		E	P
7439-96-5	Manganese	2.00	U		P
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel	18.00	U		P
7440-09-7	Potassium	4550.00	B		P
7782-49-2	Selenium	4.50	B	NS	F
7440-22-4	Silver	6.00	U	N	P
7440-23-5	Sodium	15100.00		E	P
7440-28-0	Thallium	2.00	U		F
7440-62-2	Vanadium	47.40	B		P
7440-66-6	Zinc	6.00	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

9613452.0358

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06Q32

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP857

Matrix (soil/water): WATER Lab Sample ID: 920785707

Level (low/med): LOW Date Received: 7/01/92

% 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	3.50	B	N	F
7440-39-3	Barium	104.00	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	34100.00		E	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	110.00		E	P
7439-92-1	Lead	2.00	U	W	F
7439-95-4	Magnesium	9630.00		E	P
7439-96-5	Manganese	4.50	B		P
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel	18.00	U		P
7440-09-7	Potassium	7330.00			P
7782-49-2	Selenium	2.00	U	NW	F
7440-22-4	Silver	6.00	U	N	P
7440-23-5	Sodium	17300.00		E	P
7440-28-0	Thallium	2.00	U		F
7440-62-2	Vanadium	27.80	B		P
7440-66-6	Zinc	6.00			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

9613452.0359

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06Q33

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP857

Matrix (soil/water): WATER Lab Sample ID: 920785708

Level (low/med): LOW Date Received: 7/01/92

% 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	3.50	B	N	F
7440-39-3	Barium	99.30	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	4.00	U		P
7440-70-2	Calcium	32900.00		E	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	19.00	U	E	P
7439-92-1	Lead	2.00	U	W	F
7439-95-4	Magnesium	9300.00		E	P
7439-96-5	Manganese	3.50	B		P
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel	18.00	U		P
7440-09-7	Potassium	6780.00			P
7782-49-2	Selenium	2.00	U	NW	F
7440-22-4	Silver	6.00	U	N	P
7440-23-5	Sodium	16700.00		E	P
7440-28-0	Thallium	2.00	U		F
7440-62-2	Vanadium	26.60	B		P
7440-66-6	Zinc	6.00	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments: