START 9615402.2756

0000020

9210L465-WES-927

0043059

WESTON

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

Client: WESTINGHOUSE HANFORD
RFW #: 9210L465

W.O. #: 06168-002-001-9999-00
Date Received: 10-28-92

GC/MS VOLATILE

The set of samples consisted of two (2) water samples collected on 10-26-92.

The samples were analyzed according to criteria set forth in CLP SOW 03/90 for TCL Volatile target compounds on 11-02-92.

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. All blank spike recoveries were within EPA QC limits.

5. The laboratory blank contained the common contaminant Methylene Chloride at a level less than the CRQL.

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

7. Although not present in the method blank, the low levels of Chloroform detected in these samples (<CRQL) were probably due to laboratory contamination and not inherent to the samples.

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

12-14-92
Date

FEB 1996
RECEIVED
EDMC

kls/mmz/65v.cn

WESTON Analytics Use Only
9210L465

Custody Transfer Record/Lab Work Request

WESTON

Page 1 of 1

Client: Westinghouse Hanford
Est. Final Proj. Sampling Date:
Work Order #: 06168-002-001-9999-00
Project Contact/Phone #:
AD Project Manager: Jessie Edwards
QC: CLP Del: CLP TAT: 35 day
Date Rec'd: 10-28-92 Date Due: 12-2-92
Account #: WS-HANFORD

Refrigerator #		1	6	6	SUB	1	4	SUB	4	4	4	4	4	4	4	4
#/Type Container	Liquid	3G	2AG	1AG	1P	1P/1G	1G	2P/1G	1P	1P	1P	1P	1P	1G	1G	1P
	Solid															
Volume	Liquid	40	2L	2L	1L	135/500	500	40/500	1L	1L	1L	1L	500	1L	500	1L
	Solid															
Preservatives		—	—	—	HCL	H2SO4	NaOH/NaAsO2	H2O2	H2SO4	H2SO4	none	—	H2SO4	—	H2SO4	HNO3
ANALYSES REQUESTED		ORGANIC							INORG							
		VOA	BNA	Pest/PCB	TC-99 Alpha Beta Gamma	TOC TOX	Sulfide	Cyanide Total	Metal	CN	CL F Br SO4 PO4	SPCD Ph	NO2 NO3	NH3 TDS	Alpha Beta CaCO3	Tritium

MATRIX CODES:	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	0624H	0625H	0608H	TSUB	TOC TTOX	TSED	TSUB	MHGLTDL	TCN TD	TCL TCFL TCSO4 TCPO4	TSPCD TPh	TAlpha	TBeta	TTDS	TAlpha CaCO3	MHGLSED
S - Soil	001	B07KL6			W	10/26/92		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
SE - Sediment	002	7										✓											
SO - Solid	003	9										✓											✓
SL - Sludge	004	B07KM0						✓															
W - Water	005	B07KJ7										✓											
O - Oil	006	B07KB7										✓											
A - Air	007	B07K87										✓											
DS - Drum Solids	008	B07KH7										✓											
DL - Drum Liquids																							
L - EP/TCLP Leachate																							
WI - Wipe																							
X - Other																							
F - Fish																							

WESTON Analytics Use Only

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions: 100-BC-5
① MS/MSD Required
Radio-Chem = Tc-99, C-14, tritium, Sr-90, Gross Alpha/Beta, Gamma Spec, U-235/238, Pu-239/240, Am-241.
Metals = HSL
Original Rewritten

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

WESTON Analytics Use Only

Samples were:
1) Shipped ✓ or Hand Delivered
Airbill #7521568456
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
SPCD, Ph, PO4

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

Relinquished by	Received by	Date	Time
Emery	[signature]	10/28/92	13:40
	[signature] 10-28-92		

Relinquished by	Received by	Date	Time
	[signature]	10-28-92	

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

RFW 21-21-001/A-7/91 ____ L372 ____ L373 ____ L375 ____ L377 ____ L378 Ref# ____ Cooler# SNL410 381-596a

9613402.2757

000002

0000003

Signature Security Service

OVERNIGHT - [illegible]

Contractor	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT)
WHC		[illegible]-0-0059-6

PART I – TO BE COMPLETED BY ORIGINATOR

Department	Section	Unit
Env. [illegible]	Geosciences	Geochem. & Hydrochem.

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

Routing Emery ☒ Contractor ☐ Vendor

Shipped to Weston
208 Welch Pool Rd.
Lionville, PA 19341

Off-site Custodian 9210L465

Full Title

Quantity	Description (Include Serial and any Government Tag Numbers)	Original Cost
1 92 lbs.	Sample #: B0TK37 B0TK87 B0TKH7 B0TKE7 B0TKL6 B0TKL7 B0TKL9 B0TKM0 Cooler ID: SML-110 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 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

Bill of lading # 0521564156

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
[illegible]	364	[illegible]

Location of Property (Area & Bldg.)	Contact	Phone
[illegible] 5	Phil Butcher	(509) 376-5045

Date Ready for Shipment	Cost Code to be Charged	Approximate Date This Property will be Returned
[illegible]	[illegible]	

Originated By	Date	Authorized By	Date
[illegible] WHITE IV	[illegible]	P Butcher	[illegible]

Signature and Name of Property Control	Custodian Date	Property Management Approval	Date
			[illegible]

PART II – TO BE COMPLETED BY SHIPPING

Signature of Recipient	Return Order No.	Date Issued	Purchase Order No.	Date Issued
[illegible]				
Date [illegible]				

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)

9613402.2759

0000004

Westinghouse Hanford Company

CHAIN OF CUSTODY 9210L44

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-BC-5

Collection Date 10-26-92

Ice Chest No. SML-110

Field Logbook No. EFL-1037

Bill of Lading/Airbill No. 2621568456

Offsite Property No. W93-0-005

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Sample Identification

B07KL6

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/2 Am-241), Sr-90 (HNO3)
1, 250ml, G, WATER, TRITIUM, C-14
1, 500ml, P, WATER, NO2,NO3 (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 (HCl)

B07KL7 1, 125ml, aGs, WATER, TOC (H2SO4)
1, 250ml, aGs, WATER, TOX (H2SO4)

B07KL9

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

B07KM0

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

[] Field Transfer of Custody

Chain of Possession		(Sign and Prir
Relinquished by: L.D. Walker AD Walker	Received by: B. Warren	Date/Time: 10-27-92 0800
Relinquished by: B. Warren	Received by:	Date/Time:
Relinquished by: Emery	Received by:	Date/Time: 10/28/92 13:4
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

9613402.2760

0000005

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collecto K. Lee, L. Walker Date Sampled 10-26-92 Time 1030 hours

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

Sample Number	Number and Type of Sample	Type of Sample*	Analysis Requested
B07KL6	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)
	3; 40ml; Gs	WATER	CLP-VOA
	2; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST
	1; 1L; P	WATER	ANIONS(IC)(SO4,F,PO4,Cl); CONDUCTIVITY; pH
	2; 4L; P	WATER	GROSS ALPHA/BETA;GAMMA SPEC;ALPHA SPEC
	LW 10-26-92		(U-235/238,Pu-239/240,Am-241); Sr-90 (HNO3)
	2,250ml ~~1; 500ml~~; G	WATER	TRITIUM, C-14
	1; 500ml; P;	WATER	ANIONS(NO2/NO3) (H2SO4)
	1; 1L; G;	WATER	ALKALINITY; TOTAL DISSOLVED SOLIDS
	1; 500ml; G;	WATER	SULFIDE (ZINC ACETATE + NaOH pH>9)
	1; 500ml; G;	WATER	AMMONIA; CHEMICAL OXYGEN DEMAND(H2SO4 pH<2)
	1; 1L; P;	WATER	Tc-99 (HCL)
B07KL7	1; 125ml; aGs;	WATER	TOC (H2SO4)
	1; 250ml; aGs;	WATER	TOX (H2SO4)
B07KL9	1; 1L; P;	WATER	CLP-ICP/AA METAL & Hg (HNO3) FILTERED
B07KM0	3; 40ml; Gs;	WATER	CLP-VOA
			OPC: # W93-0-0059-6
			BOL: # 2521568456
			TASK: 92-243

Field

Special Handling and/or

Possible Sample

PART II: LABORATORY SECTION

Received Titl Date

Analysis

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

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

A-6000-406(05/90)

9613402.2761 B4-B5 00006

Westinghouse Hanford Company	CHAIN OF CUSTODY 9210L465

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-BC-5

Collection Date 10-26-92

Ice Chest No. SML-110

Field Logbook No. EFL-1037

Bill of Lading/Airbill No. 2521568456

Offsite Property No. W93-0-0059-6

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Sample Identification

B07KJ7

1, 125ml, aGs, WATER, TOC(H2SO4)
1, 250ml, aGs, WATER, TOX(H2SO4)

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L. D. Walker LD Walker	Received by: B. WHITTEN	Date/Time: 10-27-92 0800
Relinquished by: B. WHITTEN	Received by:	Date/Time:
Relinquished by: Emery	Received by:	Date/Time: 10/28/92 13:40
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

9613402.2762

000007

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collecto K. Lee, L. Walker Date Sampled 10-26-92 Time 1030 hours

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

Sample Number	Number and Type of Sample	Type of Sample*	Analysis Requested
B07KJ7	1; 125ml; aGs	WATER	TOC (H2SO4)
	1; 250ml; aGs	WATER	TOX (H2SO4)
			OPC: # W93-0-0059-6
			BOL: # 2521568456
			TASK: 92-243

Field

Special Handling and/or

Possible Sample

PART II: LABORATORY SECTION

Received Titl Date

Analysis

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

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

A-6000-406(05/90)

9613402.2763 B8-6 0000008

Westinghouse Hanford Company	CHAIN OF CUSTODY 9210L465

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-BC-5

Collection Date 10-26-92

Ice Chest No. SML-110

Field Logbook No. EFL-1037

Bill of Lading/Airbill No. 2521568456

Offsite Property No. W93-0-0059-6

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Sample Identification

B07KB7

1, 125ml, aGs, WATER, TOC(H2SO4)
1, 250ml, aGs, WATER, TOX(H2SO4)

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L. D. Walker LD Walker	Received by: B. WHITES	Date/Time: 10-27-92 0800
Relinquished by:	Received by:	Date/Time:
Relinquished by: Emery	Received by:	Date/Time: 10/28/92 13:40
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

9613402.2764

000009

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collecto K. Lee, L. Walker Date Sampled 10-26-92 Time 1345 hours

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

Sample Number	Number and Type of Sample	Type of Sample*	Analysis Requested
B07KB7	1; 125ml; aGs	WATER	TOC (H2SO4)
	1; 250ml; aGs	WATER	TOX (H2SO4)
			OPC: # W93-0-0059-6
			BOL: # 2521568456
			TASK: 92-243

Field

Special Handling and/or

Possible Sample

PART II: LABORATORY SECTION

Received Titl Date

Analysis

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

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

A-6000-406(05/90)

9613402.2765 B4-5 0000010

Westinghouse Hanford Company	CHAIN OF CUSTODY 9210L465

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-BC-5

Collection Date 10-26-92

Ice Chest No. SML-110

Field Logbook No. EFL-1037

Bill of Lading/Airbill No. 2521568456

Offsite Property No. W93-0-0059-6

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Sample Identification

BO 71<87
1, 125ml, aGs, WATER, TOC(H2SO4)
1, 250ml, aGs, WATER, TOX(H2SO4)

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker	Received by: B. WHITEN	Date/Time: 10-27-92 0800
Relinquished by: B WHITEN	Received by:	Date/Time:
Relinquished by: Emery	Received by:	Date/Time: 10/28/92 13:40
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

9613402.2766

0000011

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collecto K. Lee, L. Walker Date Sampled 10-26-92 Time 1030 hours

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

Sample Number	Number and Type of Sample	Type of Sample*	Analysis Requested
B07K87	1; 125ml; aGs	WATER	TOC (H2SO4)
	1; 250ml; aGs	WATER	TOX (H2SO4)
			OPC: # W93-0-0059-6
			BOL: # 2521568456
			TASK: 92-243

Field

Special Handling and/or

Possible Sample

PART II: LABORATORY SECTION

Received Titl Date

Analysis

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

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

A-6000-406(05/90)

000013

9613402.2767

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collecto K. Lee, L. Walker Date Sampled 10-26-92 Time 1230 hours

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

Sample Number	Number and Type of Sample	Type of Sample*	Analysis Requested
B07K17	1; 125ml; aGs	WATER	TOC (H2SO4)
	1; 250ml; aGs	WATER	TOX (H2SO4)
			OPC: # W93- 0-0059-6
			BOL: # 2521568456
			TASK: 92-243

Field

Special Handling and/or

Possible Sample

PART II: LABORATORY SECTION

Received Titl Date

Analysis

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

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

A-6000-406(05/90)

9613402.2768 64-7 0000012

Westinghouse Hanford Company	CHAIN OF CUSTODY 9210L465

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-BC-5

Collection Date 10-26-92

Ice Chest No. SML-110

Field Logbook No. EFL-1037

Bill of Lading/Airbill No. 2521568456

Offsite Property No. W93-0-0059-6

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Sample Identification

BO ~~7K47~~ 7KH7

1, 125ml, aGs, WATER, TOC(H2SO4)
1, 250ml, aGs, WATER, TOX(H2SO4)

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L. D. Walker	Received by: B. WHITTEN	Date/Time: 10-27-92 0800
Relinquished by: B WHITTEN	Received by:	Date/Time:
Relinquished by: Emery	Received by:	Date/Time: 10/28/92 13:40
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

EMERY WORLDWIDE — A CF Company

9210L 465

SIGNATURE AND TALLY RECORD

60029-46 (8/89) Litho USA

DATE: 10-27-92 SHIPMENT NO.: 252156845 6
SHIPPER: WESTINGHOUSE SHIPPING DEPT (509) 376-6
REFERENCE NO.: W93-0-0059 #6

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

Pieces	Weight	Description/Marks	Emery Authorization No.
1	92 LBS	COOLER ID: SML 110 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.	EWW	P.C		
4.				
5.				
6.	R Gack / EMERY	PHL		10/28 – 9
7.	B Shelf	Lionville	Brian E Shelf	10/28/92 1
8.				

SPECIAL HANDLING INSTRUCTIONS

CONSIGNEE COPY

9613402.2769

000017

9613402.2770

FORM OF PAYMENT

Check ☐ GBL ☐ FCCOD ☐

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

EMERY WORLDWIDE

A CF Company

SERVICES **

UNITED STATES / CANADA: Same Day (Extra Charges) ☐ AM ☒ Second Day ☐ PM ☐ Saturday Delivery ☐

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

E Shipper's Account Number: 850281585

Date: 0-27-92 Origin: PSC Shipment Number: 2521568456 6

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

To:
JOSIE KING 92/0L 465
RF WESTON INC
208 WELSH POOL ROAD
LIONVILLE PA
Hold for Pick Up ☐ Canada ☐

Tariff Dest. Gateway

Check to Shipper $

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

Customer's Reference Numbers: W81232 PB5AA W93-0-0059 #6 99352

E Consignee's Account Number: 19341

Description	Pcs	L	W	H	Total Pieces	Total Weight (in lbs)
1 COOLER ID:, SML 110 WATER SAMPLES	1	11	16	11	1	92

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

Declared Value $

2521568456

Remarks: OVERNIGHT DELIVERY SIGNATURE SECURITY SERVICE

Shipper's Signature: 10/8/92

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: Base Domicile ☐ Commodity Code

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

International Customs Value

International Insurance

Base Charge

Total Transportation Charges

Other Charges/Advance at Origin ☐ OCA/O $

3 PhL-A

Terms and Conditions on Back

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

RFW Batch Number: 9210L465 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-0 Report Date: 12/04/92 10:46 Page: 1a

	Cust ID:	BO7KL6		BO7KM0		BO7KM0		BO7KM0		VBLK		VBLK BS	
Sample Information	RFW#:	001		004		004 MS		004 MSD		92LVB209-MB1		92LVB209-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	Toluene-d8	93	%	91	%	93	%	94	%	92	%	93	%
	Bromofluorobenzene	87	%	93	%	90	%	94	%	91	%	92	%
	1,2-Dichloroethane-d4	99	%	106	%	105	%	109	%	110	%	103	%
			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		4	JB	5	JB	6	JB	4	JB	1	J	4	JB
Acetone		10	U	10	U	10	U	10	U	10	U	10	U
Carbon Disulfide		10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene		10	U	10	U	121	%	114	%	10	U	115	%
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		2	J	1	J	3	J	2	J	10	U	10	U
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	10	U	105	%	109	%	10	U	105	%
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	10	U	110	%	113	%	10	U	124	%
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	10	U	10	U
1,1,2,2-Tetrachloroethane		10	U	10	U	10	U	10	U	10	U	10	U
Toluene		10	U	10	U	105	%	109	%	10	U	107	%

*= Outside of EPA CLP QC limits.

9613402.2271
000017

RFW Batch Number: 9210L465 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-0 Page: 1b

Cust ID:	BO7KL6		BO7KM0		BO7KM0		BO7KM0		VBLK		VBLK BS	
RFW#:	001		004		004 MS		004 MSD		92LVB209-MB1		92LVB209-MB1	
Chlorobenzene	10	U	10	U	109	%	112	%	10	U	112	%
Ethylbenzene	10	U	10	U	10	U	10	U	10	U	10	U
Styrene	10	U	10	U	10	U	10	U	10	U	10	U
Xylene (total)	10	U	10	U	10	U	10	U	10	U	10	U

*= Outside of EPA CLP QC limits.

9613402.2772

000018

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B07KL6

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-0

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9210L465-001

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

Lab File ID: B110206

Level: (low/med) LOW

Date Received: 10/28/92

% Moisture: not dec.

Date Analyzed: 11/02/92

GC Column: DB624 ID: .53(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	4	JB
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

9613402.2774

000033

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B07KL6

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-0

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9210L465-001

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

Lab File ID: B110206

Level: (low/med) LOW

Date Received: 10/28/92

% Moisture: not dec.

Date Analyzed: 11/02/92

GC Column: DB624 ID: .53(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.				

9613402.2775 1A 0000040

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B07KM0

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-0

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9210L465-004

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

Lab File ID: B110207

Level: (low/med) LOW

Date Received: 10/28/92

% Moisture: not dec.

Date Analyzed: 11/02/92

GC Column: DB624 ID: .53(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	5	JB
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	1	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

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B07KM0

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-0

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9210L465-004

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

Lab File ID: B110207

Level: (low/med) LOW

Date Received: 10/28/92

% Moisture: not dec.

Date Analyzed: 11/02/92

GC Column: DB624 ID: .53(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: 9210L465 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-0 Report Date: 11/17/92 14:59 Page: 1a

	Cust ID:	B07KL6		B07KL6		B07KL6		SBLK		SBLK BS	
Sample Information	RFW#:	001		001 MS		001 MSD		92LE1844-MB1		92LE1844-MB1	
	Matrix:	WATER		WATER		WATER		WATER		WATER	
	D.F.:	1.00		1.00		1.00		1.00		1.00	
	Units:	ug/L		ug/L		ug/L		ug/L		ug/L	
Surrogate Recovery	Nitrobenzene-d5	83	%	81	%	93	%	81	%	79	%
	2-Fluorobiphenyl	72	%	77	%	86	%	68	%	67	%
	Terphenyl-d14	103	%	105	%	114	%	103	%	87	%
	Phenol-d5	84	%	83	%	92	%	80	%	77	%
	2-Fluorophenol	91	%	88	%	94	%	86	%	81	%
	2,4,6-Tribromophenol	86	%	97	%	111	%	87	%	95	%
	2-Chlorophenol-d4	88	%	86	%	95	%	81	%	81	%
	1,2-Dichlorobenzene-d4	73	%	72	%	77	%	64	%	56	%
Phenol		15	U	80	%	87	%	10	U	76	%
bis(2-Chloroethyl)ether		15	U	15	U	15	U	10	U	10	U
2-Chlorophenol		15	U	85	%	92	%	10	U	81	%
1,3-Dichlorobenzene		15	U	15	U	15	U	10	U	10	U
1,4-Dichlorobenzene		15	U	64	%	70	%	10	U	44	%
1,2-Dichlorobenzene		15	U	15	U	15	U	10	U	10	U
2-Methylphenol		15	U	15	U	15	U	10	U	10	U
2,2'-oxybis(2-Chloropropane)		15	U	15	U	15	U	10	U	10	U
4-Methylphenol		15	U	15	U	15	U	10	U	10	U
N-Nitroso-di-n-propylamine		15	U	82	%	90	%	10	U	83	%
Hexachloroethane		15	U	15	U	15	U	10	U	10	U
Nitrobenzene		15	U	15	U	15	U	10	U	10	U
Isophorone		15	U	15	U	15	U	10	U	10	U
2-Nitrophenol		15	U	15	U	15	U	10	U	10	U
2,4-Dimethylphenol		15	U	15	U	15	U	10	U	10	U
bis(2-Chloroethoxy)methane		15	U	15	U	15	U	10	U	10	U
2,4-Dichlorophenol		15	U	15	U	15	U	10	U	10	U
1,2,4-Trichlorobenzene		15	U	74	%	82	%	10	U	54	%
Naphthalene		15	U	15	U	15	U	10	U	10	U
4-Chloroaniline		15	U	15	U	15	U	10	U	10	U
Hexachlorobutadiene		15	U	15	U	15	U	10	U	10	U
4-Chloro-3-methylphenol		15	U	84	%	95	%	10	U	81	%
2-Methylnaphthalene		15	U	15	U	15	U	10	U	10	U
Hexachlorocyclopentadiene		15	U	15	U	15	U	10	U	10	U

*= Outside of EPA CLP QC limits.

9613402.2777 000017

RFW Batch Number: 9210L465 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-0 Page: 1b

Cust ID:	B07KL6		B07KL6		B07KL6		SBLK		SBLK BS	
RFW#:	001		001 MS		001 MSD		92LE1844-MB1		92LE1844-MB1	
2,4,6-Trichlorophenol	15	U	15	U	15	U	10	U	10	U
2,4,5-Trichlorophenol	38	U	38	U	38	U	25	U	25	U
2-Chloronaphthalene	15	U	15	U	15	U	10	U	10	U
2-Nitroaniline	38	U	38	U	38	U	25	U	25	U
Dimethylphthalate	15	U	15	U	15	U	10	U	10	U
Acenaphthylene	15	U	15	U	15	U	10	U	10	U
2,6-Dinitrotoluene	15	U	15	U	15	U	10	U	10	U
3-Nitroaniline	38	U	38	U	38	U	25	U	25	U
Acenaphthene	15	U	85	%	94	%	10	U	72	%
2,4-Dinitrophenol	38	U	38	U	38	U	25	U	25	U
4-Nitrophenol	38	U	75	%	90 *	%	25	U	74	%
Dibenzofuran	15	U	15	U	15	U	10	U	10	U
2,4-Dinitrotoluene	15	U	90	%	101 *	%	10	U	83	%
Diethylphthalate	15	U	15	U	15	U	10	U	10	U
4-Chlorophenyl-phenylether	15	U	15	U	15	U	10	U	10	U
Fluorene	15	U	15	U	15	U	10	U	10	U
4-Nitroaniline	38	U	38	U	38	U	25	U	25	U
4,6-Dinitro-2-methylphenol	38	U	38	U	38	U	25	U	25	U
N-Nitrosodiphenylamine (1)	15	U	15	U	15	U	10	U	10	U
4-Bromophenyl-phenylether	15	U	15	U	15	U	10	U	10	U
Hexachlorobenzene	15	U	15	U	15	U	10	U	10	U
Pentachlorophenol	38	U	60	%	62	%	25	U	90	%
Phenanthrene	15	U	15	U	15	U	10	U	10	U
Anthracene	15	U	15	U	15	U	10	U	10	U
Carbazole	15	U	15	U	15	U	10	U	10	U
Di-n-butylphthalate	2	JB	2	JB	2	JB	0.9	J	2	JB
Fluoranthene	15	U	15	U	15	U	10	U	10	U
Pyrene	15	U	99	%	106	%	10	U	84	%
Butylbenzylphthalate	15	U	15	U	15	U	10	U	10	U
3,3'-Dichlorobenzidine	15	U	15	U	15	U	10	U	10	U
Benzo(a)anthracene	15	U	15	U	15	U	10	U	10	U
Chrysene	15	U	15	U	15	U	10	U	10	U
bis(2-Ethylhexyl)phthalate	3	JB	1	JB	2	JB	0.4	J	0.7	JB
Di-n-octyl phthalate	15	U	15	U	15	U	10	U	10	U
Benzo(b)fluoranthene	15	U	15	U	15	U	10	U	10	U
Benzo(k)fluoranthene	15	U	15	U	15	U	10	U	10	U
Benzo(a)pyrene	15	U	15	U	15	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	15	U	15	U	15	U	10	U	10	U
Dibenz(a,h)anthracene	15	U	15	U	15	U	10	U	10	U
Benzo(g,h,i)perylene	15	U	15	U	15	U	10	U	10	U

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

9613402.2778 0000018

WESTON

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

Client: WESTINGHOUSE HANFORD
RFW #: 9210L465

W.O. #: 06168-002-001-9999-00
Date Received: 10-28-92

SEMIVOLATILE

One (1) water sample was collected on 10-26-92.

The sample and its associated QC samples were extracted on 10-29-92 and analyzed according to criteria set forth in CLP SOW 03/90 for TCL Semivolatile target compounds on 11-06-92.

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. All surrogate recoveries were within EPA QC limits.

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

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

5. The laboratory blank 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.

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

11/23/92
Date

kls/10-465b.cn

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

0000033 CLIENT SAMPLE NO.

B07KL6

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-0

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9210L465-001

Sample wt/vol: 660 (g/mL) ML

Lab File ID: V110610

Level: (low/med) LOW

Date Received: 10/28/92

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

Date Extracted: 10/29/92

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 11/06/92

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	15	U
111-44-4	bis(2-Chloroethyl)ether	15	U
95-57-8	2-Chlorophenol	15	U
541-73-1	1,3-Dichlorobenzene	15	U
106-46-7	1,4-Dichlorobenzene	15	U
95-50-1	1,2-Dichlorobenzene	15	U
95-48-7	2-Methylphenol	15	U
108-60-1	2,2'-oxybis(2-Chloropropane)	15	U
106-44-5	4-Methylphenol	15	U
621-64-7	N-Nitroso-di-n-propylamine	15	U
67-72-1	Hexachloroethane	15	U
98-95-3	Nitrobenzene	15	U
78-59-1	Isophorone	15	U
88-75-5	2-Nitrophenol	15	U
105-67-9	2,4-Dimethylphenol	15	U
111-91-1	bis(2-Chloroethoxy)methane	15	U
120-83-2	2,4-Dichlorophenol	15	U
120-82-1	1,2,4-Trichlorobenzene	15	U
91-20-3	Naphthalene	15	U
106-47-8	4-Chloroaniline	15	U
87-68-3	Hexachlorobutadiene	15	U
59-50-7	4-Chloro-3-methylphenol	15	U
91-57-6	2-Methylnaphthalene	15	U
77-47-4	Hexachlorocyclopentadiene	15	U
88-06-2	2,4,6-Trichlorophenol	15	U
95-95-4	2,4,5-Trichlorophenol	38	U
91-58-7	2-Chloronaphthalene	15	U
88-74-4	2-Nitroaniline	38	U
131-11-3	Dimethylphthalate	15	U
208-96-8	Acenaphthylene	15	U
606-20-2	2,6-Dinitrotoluene	15	U
99-09-2	3-Nitroaniline	38	U
83-32-9	Acenaphthene	15	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07KL6

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-0

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9210L465-001

Sample wt/vol: 660 (g/mL) ML

Lab File ID: V110610

Level: (low/med) LOW

Date Received: 10/28/92

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

Date Extracted: 10/29/92

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 11/06/92

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	38	U
100-02-7	4-Nitrophenol	38	U
132-64-9	Dibenzofuran	15	U
121-14-2	2,4-Dinitrotoluene	15	U
84-66-2	Diethylphthalate	15	U
7005-72-3	4-Chlorophenyl-phenylether	15	U
86-73-7	Fluorene	15	U
100-01-6	4-Nitroaniline	38	U
534-52-1	4,6-Dinitro-2-methylphenol	38	U
86-30-6	N-Nitrosodiphenylamine (1)	15	U
101-55-3	4-Bromophenyl-phenylether	15	U
118-74-1	Hexachlorobenzene	15	U
87-86-5	Pentachlorophenol	38	U
85-01-8	Phenanthrene	15	U
120-12-7	Anthracene	15	U
86-74-8	Carbazole	15	U
84-74-2	Di-n-butylphthalate	2	JB
206-44-0	Fluoranthene	15	U
129-00-0	Pyrene	15	U
85-68-7	Butylbenzylphthalate	15	U
91-94-1	3,3'-Dichlorobenzidine	15	U
56-55-3	Benzo(a)anthracene	15	U
218-01-9	Chrysene	15	U
117-81-7	bis(2-Ethylhexyl)phthalate	3	JB
117-84-0	Di-n-octyl phthalate	15	U
205-99-2	Benzo(b)fluoranthene	15	U
207-08-9	Benzo(k)fluoranthene	15	U
50-32-8	Benzo(a)pyrene	15	U
193-39-5	Indeno(1,2,3-cd)pyrene	15	U
53-70-3	Dibenz(a,h)anthracene	15	U
191-24-2	Benzo(g,h,i)perylene	15	U

(1) - Cannot be separated from Diphenylamine

9613H02.2782 000035

CLIENT SAMPLE NO.

B07KL6

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-0

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9210L465-001

Sample wt/vol: 660 (g/mL) ML

Lab File ID: V110610

Level: (low/med) LOW

Date Received: 10/28/92

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

Date Extracted: 10/29/92

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 11/06/92

Injection Volume: 2.0(uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N

pH: 7.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	30.35	9	JB

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

RFW Batch Number: 9210L465 Client: WESTINGHOUSE HANFORD Work Order: 06168-002-001-9999-00 Report Date: 12/10/92 19:28 Page: 1

	Cust ID:	BO7KL6	BO7KL6	BO7KL6	BO7KL6	BO7KL6	BO7KL6
Sample Information	RFW#:	001	001	001 MS	001 MS	001 MSD	001 MSD
	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	80 %	75 %	95 %	90 %	100 %	90 %
Surrogate:	Decachlorobiphenyl	95 %	95 %	105 %	105 %	100 %	105 %
		fl	fl	fl	fl	fl	fl
Alpha-BHC		0.050 U	NA	0.10 U	NA	0.10 U	NA
Beta-BHC		0.050 U	NA	0.10 U	NA	0.10 U	NA
Delta-BHC		0.050 U	NA	0.10 U	NA	0.10 U	NA
gamma-BHC (Lindane)		0.050 U	NA	128 * %	126 * %	126 * %	122 %
Heptachlor		0.050 U	NA	98 %	97 %	104 %	103 %
Aldrin		0.040 JB	0.050 U	112 %	96 %	118 %	100 %
Heptachlor epoxide		0.050 U	NA	0.10 U	NA	0.10 U	NA
Endosulfan I		0.050 U	NA	0.10 U	NA	0.10 U	NA
Dieldrin		0.10 U	NA	135 * %	131 * %	133 * %	127 * %
4,4'-DDE		0.10 U	NA	0.20 U	NA	0.20 U	NA
Endrin		0.10 U	NA	148 * %	134 * %	139 * %	129 * %
Endosulfan II		0.10 U	NA	0.20 U	NA	0.20 U	NA
4,4'-DDD		0.10 U	NA	0.20 U	NA	0.20 U	NA
Endosulfan sulfate		0.10 U	NA	0.20 U	NA	0.20 U	NA
4,4'-DDT		0.10 U	NA	147 * %	155 * %	143 * %	149 * %
Methoxychlor		0.50 U	NA	1.0 U	NA	1.0 U	NA
Endrin ketone		0.10 U	NA	0.20 U	NA	0.20 U	NA
Endrin aldehyde		0.10 U	NA	0.20 U	NA	0.20 U	NA
alpha-Chlordane		0.050 U	NA	0.10 U	NA	0.10 U	NA
gamma-Chlordane		0.050 U	NA	0.10 U	NA	0.10 U	NA
Toxaphene		5.0 U	NA	10 U	NA	10 U	NA
Aroclor-1016		1.0 U	NA	2.0 U	NA	2.0 U	NA
Aroclor-1221		2.0 U	NA	4.0 U	NA	4.0 U	NA
Aroclor-1232		1.0 U	NA	2.0 U	NA	2.0 U	NA
Aroclor-1242		1.0 U	NA	2.0 U	NA	2.0 U	NA
Aroclor-1248		1.0 U	NA	2.0 U	NA	2.0 U	NA
Aroclor-1254		1.0 U	NA	2.0 U	NA	2.0 U	NA
Aroclor-1260		1.0 U	NA	2.0 U	NA	2.0 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

000017
9613402.2783

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

Client: WESTINGHOUSE HANFORD
RFW #: 9210L465

W.O. #: 06168-002-001-9999-00
Date Received: 10-28-92

PESTICIDE/PCB

One (1) water sample was collected on 10-26-92.

The sample and its associated QC samples were extracted on 10-29-92 and analyzed according to criteria set forth in the Contract Laboratory Program 03/90 SOW for Pesticide and PCB target compounds on 11-09-92.

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

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

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

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

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

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

6. All surrogate recoveries were within EPA QC limits.

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

8. Fifteen (15) of twenty-four (24) matrix spike recoveries were outside EPA QC limits. The following compounds were outside the EPA QC limits:

Compound	% Recovery	QC Limits
Gamma-BHC	128, 126, 126	56 - 123
Dieldrin	135, 131, 133, 127	52 - 126
Endrin	148, 134, 139, 129	56 - 121
4,4'-DDT	147, 155, 143, 149	38 - 127

WESTON
MANAGERS DESIGNERS CONSULTANTS

9. 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

1/8/93
Date

sma/pcb/10-465pp.cn

9613402.2786 ID 0000031 CLIENT SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

BO7KL6

Lab Name: Roy F. Weston, Inc. Work Order: 06168-002-001-9999-00

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER — Lab Sample ID: 9210L465-001

Sample wt/vol: 1000 (g/mL) ML — Lab File ID: 11059235.80

% Moisture: decanted: (Y/N) _ — Date Received: 10/28/92

Extraction: (SepF/Cont/Sonc) CONT — Date Extracted: 10/29/92

Concentrated Extract Volume: 10000.00 (uL) — Date Analyzed: 11/09/92

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

B.M 01/01/93

9613402.2787 0000001

JAN 1993 RECEIVED OSM DMO

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

Client : WESTINGHOUSE HANFORD
RFW# : 9210L465

W.O. #: 06168-002-001-9999-00
Date Received: 10-28-92

INORGANIC

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 pH and Specific Conductance (received 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% guidance limit (40% for Total Organic Halides).

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 Organic Halides) guidance limits. All %RPD were within the 20% guidance limit (40% for Total Organic Halides).

6. Replicate results are summarized on the Inorganic Precision Report contained within this document. All results were within the 20% RPD guidance limit (40% for 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).

Margaret M. Keatyson

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

11/18/92
Date

pas/i10-465

ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 11/16/92

CLIENT: WESTINGHOUSE HANFORD
WORK ORDER: 06168-002-001-9999-00

WESTON BATCH #: 9210L465

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	BO7KL6	Alkalinity	105	MG/L	2.0
		Chloride by IC	13.1	MG/L	5.0
		Fluoride by IC	0.25 u	MG/L	0.25
		Cyanide, Total	20.0 u	UG/L	20.0
		Chemical Oxygen Demand	5.0 u	MG/L	5.0
		Phosphate by IC	0.25 u	MG/L	0.25
		Sulfate by IC	50.8	MG/L	5.0
		Nitrate Nitrite	5.0	MG-N/L	2.0
		Ammonia, as N	0.10 u	MG/L	0.10
		pH	7.6	PH UNITS	0.010
		Sulfide	0.10 u	MG/L	0.10
		Specific Conductance	347	UMHOS/CM	1.0
		Total Dissolved Solids	151	MG/L	5.0
-002	BO7KL7	Total Organic Carbon	0.50 u	MG/L	0.50
		Total Organic Halides	20.0 u	UG/L	20.0
-005	BO7KJ7	Total Organic Carbon	0.50 u	MG/L	0.50
		Total Organic Halides	5.0 u	UG/L	5.0
-006	BO7KB7	Total Organic Carbon	0.50 u	MG/L	0.50
		Total Organic Halides	5.0 u	UG/L	5.0
-007	BO7K87	Total Organic Carbon	0.50 u	MG/L	0.50
		Total Organic Halides	6.2	UG/L	5.0
-008	BO7KH7	Total Organic Carbon	0.50 u	MG/L	0.50
		Total Organic Halides	5.0 u	UG/L	5.0

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

Client : WESTINGHOUSE HANFORD
RFW# : 9210L465

W.O. #: 06168-002-001-9999-00
Date Received: 10-28-92

CLP METALS

The set of samples consisted of two (2) water samples collected on 10-26-92.

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. 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 exceptions of arsenic and selenium. All exceptions are flagged with a "N" on the CLP forms.

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

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

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

WESTON
MANAGERS DESIGNERS/CONSULTANTS

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

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

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

1.8.93
Date

mlj/clp-met.nar

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

Client: WESTINGHOUSE HANFORD
RFW #: 9210L465

W.O. #: 06168-002-001-9999-00
Date Received: 10-28-92

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.

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

1.8.93
Date

mlj\clp-met.nar

ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 12/23/92

CLIENT: WESTINGHOUSE HANFORD
WORK ORDER: 06168-002-001-9999-00

WESTON BATCH #: 9210L465

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-001	B07KL6	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	48100		UG/L	5000
		Cadmium, Total	5.0	u	UG/L	5.0
		Cobalt, Total	50.0	u	UG/L	50.0
		Chromium, Total	84.5		UG/L	10.0
		Copper, Total	25.0	u	UG/L	25.0
		Iron, Total	525		UG/L	100
		Mercury, Total	0.20	u	UG/L	0.20
		Potassium, Total	5470		UG/L	5000
		Magnesium, Total	8750		UG/L	5000
		Manganese, Total	15.0	u	UG/L	15.0
		Sodium, Total	11800		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 12/23/92

CLIENT: WESTINGHOUSE HANFORD
WORK ORDER: 06168-002-001-9999-00

WESTON BATCH #: 9210L465

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-003	BO7KL9	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	49100		UG/L	5000
		Cadmium, Soluble	5.0	u	UG/L	5.0
		Cobalt, Soluble	50.0	u	UG/L	50.0
		Chromium, Soluble	12.2		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	5530		UG/L	5000
		Magnesium, Soluble	8880		UG/L	5000
		Manganese, Soluble	15.0	u	UG/L	15.0
		Sodium, Soluble	12100		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

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

BO7KL6

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP465

Matrix (soil/water): WATER Lab Sample ID: 921046501

Level (low/med): LOW Date Received: 10/28/92

% 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	82.20	B		P
7440-36-0	Antimony	60.00	U		P
7440-38-2	Arsenic	2.20	B	NW	F
7440-39-3	Barium	18.80	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	7.00	U		P
7440-70-2	Calcium	48100.00			P
7440-47-3	Chromium	84.50			P
7440-48-4	Cobalt	9.00	U		P
7440-50-8	Copper	10.10	B		P
7439-89-6	Iron	525.00			P
7439-92-1	Lead	2.00	U	W	F
7439-95-4	Magnesium	8750.00			P
7439-96-5	Manganese	10.60	B		P
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel	39.20	B		P
7440-09-7	Potassium	5470.00			P
7782-49-2	Selenium	2.00	U	NW	F
7440-22-4	Silver	10.00	U		P
7440-23-5	Sodium	11800.00			P
7440-28-0	Thallium	2.00	U		F
7440-62-2	Vanadium	18.40	B		P
7440-66-6	Zinc	11.00	B		P
	Cyanide	20.00	U		C

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.

BO7KL9

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP465

Matrix (soil/water): WATER Lab Sample ID: 921046503

Level (low/med): LOW Date Received: 10/28/92

% 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	U	N	F
7440-39-3	Barium	16.90	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	7.00	U		P
7440-70-2	Calcium	49100.00			P
7440-47-3	Chromium	12.20			P
7440-48-4	Cobalt	9.00	U		P
7440-50-8	Copper	8.00	U		P
7439-89-6	Iron	29.70	B		P
7439-92-1	Lead	2.00	U	W	F
7439-95-4	Magnesium	8880.00			P
7439-96-5	Manganese	4.00	U		P
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel	20.00	U		P
7440-09-7	Potassium	5530.00			P
7782-49-2	Selenium	2.00	U	NW	F
7440-22-4	Silver	10.00	U		P
7440-23-5	Sodium	12100.00			P
7440-28-0	Thallium	2.00	U		F
7440-62-2	Vanadium	17.80	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:

9613402.2796

VALIDATION SUMMARY

9613402.2797

9210L465-WES-927

DATA QUALIFICATION SUMMARY

UNIT: 100-BC-5

DOCUMENT CONTROL NUMBER: WHC-SD-EN-TI-139

ANALYSES: VOC, BNA, Pest/PCB, Inorganics, Wet Chemistry

RFW NO.: 9210L465-WES-927

SDG NO.: B07K87

QUALIFICATION SUMMARY:

Data from this package were not validated.

9613402.2798

Westinghouse Hanford Company

CHAIN OF CUSTODY

9210L465

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-BC-5

Collection Date 10-26-92

Ice Chest No. SML-110

Field Logbook No. EFL-1037

Bill of Lading/Airbill No. 2621568456

Offsite Property No. W93-G-00596

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Sample Identification

B07KL6
- 1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
- 1, 1L, P, WATER, CLP-CYANIDE (NaOH)
- 3, 40ml, Gs, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
- 1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 250ml, G, WATER, TRITIUM, C-14
- 1, 500ml, P, WATER, NO2,NO3 (H2SO4)
- 1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, Tc-99 (HCl)

B07KL7
- 1, 125ml, aGs, WATER, TOC (H2SO4)
- 1, 250ml, aGs, WATER, TOX (H2SO4)

B07KL9
- 1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

B07KM0
- 3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L. D. Walker	Received by: B. Warren	Date/Time: 10-27-92 0800
Relinquished by: B. Warren	Received by:	Date/Time:
Relinquished by: Emery	Received by:	Date/Time: 10/28/92 13:40
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

9613402.2799

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collecto K. Lee, L. Walker Date Sampled 10-26-92 Time 1030 hours

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

Sample Number	Number and Type of Sample	Type of Sample*	Analysis Requested
BO7KL6	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)
	3; 40ml; Gs	WATER	CLP-VOA
	2; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST
	1; 1L; P	WATER	ANIONS(IC)(SO4,F,PO4,Cl); CONDUCTIVITY; pH
	2; 4L; P	WATER	GROSS ALPHA/BETA;GAMMA SPEC;ALPHA SPEC
	LW 10-26-92		(U-235/238,Pu-239/240,Am-241); Sr-90 (HNO3)
	2,250ml ~~1; 500ml~~; G	WATER	TRITIUM, C-14
	1; 500ml; P;	WATER	ANIONS(NO2/NO3) (H2SO4)
	1; 1L; G;	WATER	ALKALINITY; TOTAL DISSOLVED SOLIDS
	1; 500ml; G;	WATER	SULFIDE (ZINC ACETATE + NaOH pH>9)
	1; 500ml; G;	WATER	AMMONIA; CHEMICAL OXYGEN DEMAND(H2SO4 pH<2)
	1; 1L; P;	WATER	Tc-99 (HCL)
BO7KL7	1; 125ml; aGs;	WATER	TOC (H2SO4)
	1; 250ml; aGs;	WATER	TOX (H2SO4)
BO7KL9	1; 1L; P;	WATER	CLP-ICP/AA METAL & Hg (HNO3) FILTERED
BO7KM0	3; 40ml; Gs;	WATER	CLP-VOA
			OPC: # W93-0-0059-6
			BOL: # 2521568456
			TASK: 92-243

Field

Special Handling and/or

Possible Sample

PART II: LABORATORY SECTION

Received Titl Date

Analysis

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

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

A-6000-406(05/90)

9613402.2800 B415000000

Westinghouse Hanford Company	CHAIN OF CUSTODY 9210L465

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Project Designation/Sampling Locations 100-BC-5

Ice Chest No. SML-110

Bill of Lading/Airbill No. 2521568456

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date 10-26-92

Field Logbook No. EFL-1037

Offsite Property No. W93-0-0059-6

Sample Identification

B07KJ7
1, 125ml, aGs, WATER, TOC(H2SO4)
1, 250ml, aGs, WATER, TOX(H2SO4)

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L. D. Walker	Received by: B. WHITTEN	Date/Time: 10-27-92 0800
Relinquished by: B. WHITTEN	Received by:	Date/Time:
Relinquished by: Emery	Received by:	Date/Time: 10/28/92 13:40
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

9613402.2001

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collecto K. Lee, L. Walker Date Sampled 10-26-92 Time 1030 hours

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

Sample Number	Number and Type of Sample	Type of Sample*	Analysis Requested
B07KJ7	1; 125ml; aGs	WATER	TOC (H2SO4)
	1; 250ml; aGs	WATER	TOX (H2SO4)
			OPC: # W93-0-0059-6
			BOL: # 2521568456
			TASK: 92-243

Field

Special Handling and/or

Possible Sample

PART II: LABORATORY SECTION

Received Titl Date

Analysis

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

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

A-6000-406(05/90

B8-6 00000008

9613402.2802

Westinghouse Hanford Company	CHAIN OF CUSTODY 9210L465

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-BC-5

Collection Date 10-26-92

Ice Chest No. SML-110

Field Logbook No. EFL-1037

Bill of Lading/Airbill No. 2521568456

Offsite Property No. W93-0-0059-6

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Sample Identification

B07KB7

1, 125ml, aGs, WATER, TOC(H2SO4)
1, 250ml, aGs, WATER, TOX(H2SO4)

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L. D. Walker LD Walker	Received by: B-WHITES	Date/Time: 10-27-92 0800
Relinquished by:	Received by:	Date/Time:
Relinquished by: Emery	Received by:	Date/Time: 10/28/92 13:40
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

000009

9613402.2803

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collecto K. Lee, L. Walker Date Sampled 10-26-92 Time 1345 hours

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

Sample Number	Number and Type of Sample	Type of Sample*	Analysis Requested
B07KB7	1; 125ml; aGs	WATER	TOC (H2SO4)
	1; 250ml; aGs	WATER	TOX (H2SO4)
			OPC: # W93-0-0059-6
			BOL: # 2521568456
			TASK: 92-243

Field

Special Handling and/or

Possible Sample

PART II: LABORATORY SECTION

Received Titl Date

Analysis

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

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

A-6000-406(05/90

B4-5 0000010

9613402.2804

Westinghouse Hanford Company	CHAIN OF CUSTODY 9210L465

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-BC-5

Collection Date 10-26-92

Ice Chest No. SML-110

Field Logbook No. EFL-1037

Bill of Lading/Airbill No. 2521568456

Offsite Property No. W93-0-0059-6

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Sample Identification

BO 71<87
1, 125ml, aGs, WATER, TOC(H2SO4)
1, 250ml, aGs, WATER, TOX(H2SO4)

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker	Received by: B. WHITEN	Date/Time: 10-27-92 0800
Relinquished by: B WHITEN	Received by:	Date/Time:
Relinquished by: Emery	Received by:	Date/Time: 10/28/92 13:40
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

Westinghouse Hanford Company 9613402.2805

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collecto K. Lee, L. Walker Date Sampled 10-26-92 Time 1030 hours

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

Sample Number	Number and Type of Sample	Type of Sample*	Analysis Requested
B07K87	1; 125ml; aGs	WATER	TOC (H2SO4)
	1; 250ml; aGs	WATER	TOX (H2SO4)
			OPC: # W93-0-0059-6
			BOL: # 2521568456
			TASK: 92-243

Field

Special Handling and/or

Possible Sample

PART II: LABORATORY SECTION

Received Titl Date

Analysis

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

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

A-6000-406(05/90)

9613402.2806 BC-7 000012

Westinghouse Hanford Company	CHAIN OF CUSTODY 9210L465

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-BC-5

Collection Date 10-26-92

Ice Chest No. SML-110

Field Logbook No. EFL-1037

Bill of Lading/Airbill No. 2521568456

Offsite Property No. W93-0-0059-6

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Sample Identification

BO ~~7KH7~~ 7KH7

~~[illegible]~~ 1, 125ml, aGs, WATER, TOC(H2SO4)
1, 250ml, aGs, WATER, TOX(H2SO4)

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L. D. Walker	Received by: B-WHITTEN	Date/Time: 10-27-92 0800
Relinquished by: B WHITTEN	Received by:	Date/Time:
Relinquished by: Emery	Received by:	Date/Time: 10/28/92 13:40
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

0 0 0 0 1 3

9613402.2807

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collecto K. Lee, L. Walker Date Sampled 10-26-92 Time 1230 hours

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

Sample Number	Number and Type of Sample	Type of Sample*	Analysis Requested
B07K17	1; 125ml; aGs	WATER	TOC (H2SO4)
	1; 250ml; aGs	WATER	TOX (H2SO4)
			OPC: # W93- 0-0059-6
			BOL: # 2521568456
			TASK: 92-243

Field

Special Handling and/or

Possible Sample

PART II: LABORATORY SECTION

Received Titl Date

Analysis

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

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

A-6000-406(05/90)

9613402.2808 1A 0000032

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B07KL6

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-0

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9210L465-001

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

Lab File ID: B110206

Level: (low/med) LOW

Date Received: 10/28/92

% Moisture: not dec.

Date Analyzed: 11/02/92

GC Column: DB624 ID: .53(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	4	JB
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

NV 3/9/93 SC

CLIENT SAMPLE NO.

BO7KL6

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-0

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9210L465-001

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

Lab File ID: B110206

Level: (low/med) LOW

Date Received: 10/28/92

% Moisture: not dec.

Date Analyzed: 11/02/92

GC Column: DB624 ID: .53(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.				

NV
3/9/93 SC

9613402.2810 1A 0000040

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B07KM0

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-0

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9210L465-004

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

Lab File ID: B110207

Level: (low/med) LOW

Date Received: 10/28/92

% Moisture: not dec.

Date Analyzed: 11/02/92

GC Column: DB624 ID: .53(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	5	~~JB~~
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	1	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

NV 3/9/93

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B07KM0

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-0

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9210L465-004

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

Lab File ID: B110207

Level: (low/med) LOW

Date Received: 10/28/92

% Moisture: not dec.

Date Analyzed: 11/02/92

GC Column: DB624 ID: .53(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.				

NV
3/9/93 SC

9613402.2812 1B 0000033 CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07KL6

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-0

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9210L465-001

Sample wt/vol: 660 (g/mL) ML

Lab File ID: V110610

Level: (low/med) LOW

Date Received: 10/28/92

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

Date Extracted: 10/29/92

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 11/06/92

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	15	U
111-44-4	bis(2-Chloroethyl)ether	15	U
95-57-8	2-Chlorophenol	15	U
541-73-1	1,3-Dichlorobenzene	15	U
106-46-7	1,4-Dichlorobenzene	15	U
95-50-1	1,2-Dichlorobenzene	15	U
95-48-7	2-Methylphenol	15	U
108-60-1	2,2'-oxybis(2-Chloropropane)	15	U
106-44-5	4-Methylphenol	15	U
621-64-7	N-Nitroso-di-n-propylamine	15	U
67-72-1	Hexachloroethane	15	U
98-95-3	Nitrobenzene	15	U
78-59-1	Isophorone	15	U
88-75-5	2-Nitrophenol	15	U
105-67-9	2,4-Dimethylphenol	15	U
111-91-1	bis(2-Chloroethoxy)methane	15	U
120-83-2	2,4-Dichlorophenol	15	U
120-82-1	1,2,4-Trichlorobenzene	15	U
91-20-3	Naphthalene	15	U
106-47-8	4-Chloroaniline	15	U
87-68-3	Hexachlorobutadiene	15	U
59-50-7	4-Chloro-3-methylphenol	15	U
91-57-6	2-Methylnaphthalene	15	U
77-47-4	Hexachlorocyclopentadiene	15	U
88-06-2	2,4,6-Trichlorophenol	15	U
95-95-4	2,4,5-Trichlorophenol	38	U
91-58-7	2-Chloronaphthalene	15	U
88-74-4	2-Nitroaniline	38	U
131-11-3	Dimethylphthalate	15	U
208-96-8	Acenaphthylene	15	U
606-20-2	2,6-Dinitrotoluene	15	U
99-09-2	3-Nitroaniline	38	U
83-32-9	Acenaphthene	15	U

NV 3/9/93

9613H02.2813 1C 0 0 0 0 3 4 CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07KL6

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-0

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER Lab Sample ID: 9210L465-001

Sample wt/vol: 660 (g/mL) ML Lab File ID: V110610

Level: (low/med) LOW Date Received: 10/28/92

% Moisture: _____ decanted: (Y/N)__ Date Extracted: 10/29/92

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/06/92

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	38	U
100-02-7	4-Nitrophenol	38	U
132-64-9	Dibenzofuran	15	U
121-14-2	2,4-Dinitrotoluene	15	U
84-66-2	Diethylphthalate	15	U
7005-72-3	4-Chlorophenyl-phenylether	15	U
86-73-7	Fluorene	15	U
100-01-6	4-Nitroaniline	38	U
534-52-1	4,6-Dinitro-2-methylphenol	38	U
86-30-6	N-Nitrosodiphenylamine (1)	15	U
101-55-3	4-Bromophenyl-phenylether	15	U
118-74-1	Hexachlorobenzene	15	U
87-86-5	Pentachlorophenol	38	U
85-01-8	Phenanthrene	15	U
120-12-7	Anthracene	15	U
86-74-8	Carbazole	15	U
84-74-2	Di-n-butylphthalate	2	JB
206-44-0	Fluoranthene	15	U
129-00-0	Pyrene	15	U
85-68-7	Butylbenzylphthalate	15	U
91-94-1	3,3'-Dichlorobenzidine	15	U
56-55-3	Benzo(a)anthracene	15	U
218-01-9	Chrysene	15	U
117-81-7	bis(2-Ethylhexyl)phthalate	3	JB
117-84-0	Di-n-octyl phthalate	15	U
205-99-2	Benzo(b)fluoranthene	15	U
207-08-9	Benzo(k)fluoranthene	15	U
50-32-8	Benzo(a)pyrene	15	U
193-39-5	Indeno(1,2,3-cd)pyrene	15	U
53-70-3	Dibenz(a,h)anthracene	15	U
191-24-2	Benzo(g,h,i)perylene	15	U

NV 3/9/93 SC

(1) - Cannot be separated from Diphenylamine

9613H02.2814 1F 000035

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B07KL6

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-0

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9210L465-001

Sample wt/vol: 660 (g/mL) ML

Lab File ID: V110610

Level: (low/med) LOW

Date Received: 10/28/92

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

Date Extracted: 10/29/92

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 11/06/92

Injection Volume: 2.0(uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N

pH: 7.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	30.35	9	JB

NU
3/4/93 SC

9613402.2815 ID 0000031 CLIENT SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07KL6

Lab Name: Roy F. Weston, Inc. Work Order: 06168-002-001-9999-00

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER — Lab Sample ID: 9210L465-001

Sample wt/vol: 1000 (g/mL) ML — Lab File ID: 11059235.80

% Moisture: decanted: (Y/N)_ — Date Received: 10/28/92

Extraction: (SepF/Cont/Sonc) CONT — Date Extracted: 10/29/92

Concentrated Extract Volume: 10000.00 (uL) — Date Analyzed: 11/09/92

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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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07KL6

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP465

Matrix (soil/water): WATER Lab Sample ID: 921046501

Level (low/med): LOW Date Received: 10/28/92

% 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	82.20	B		P
7440-36-0	Antimony	60.00	U		P
7440-38-2	Arsenic	2.20	B	NW	F
7440-39-3	Barium	18.80	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	7.00	U		P
7440-70-2	Calcium	48100.00			P
7440-47-3	Chromium	84.50			P
7440-48-4	Cobalt	9.00	U		P
7440-50-8	Copper	10.10	B		P
7439-89-6	Iron	525.00			P
7439-92-1	Lead	2.00	U	W	F
7439-95-4	Magnesium	8750.00			P
7439-96-5	Manganese	10.60	B		P
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel	39.20	B		P
7440-09-7	Potassium	5470.00			P
7782-49-2	Selenium	2.00	U	NW	F
7440-22-4	Silver	10.00	U		P
7440-23-5	Sodium	11800.00			P
7440-28-0	Thallium	2.00	U		F
7440-62-2	Vanadium	18.40	B		P
7440-66-6	Zinc	11.00	B		P
	Cyanide	20.00	U		C

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Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07KL9

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP465

Matrix (soil/water): WATER Lab Sample ID: 921046503

Level (low/med): LOW Date Received: 10/28/92

% 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	U	N	F
7440-39-3	Barium	16.90	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	7.00	U		P
7440-70-2	Calcium	49100.00			P
7440-47-3	Chromium	12.20			P
7440-48-4	Cobalt	9.00	U		P
7440-50-8	Copper	8.00	U		P
7439-89-6	Iron	29.70	B		P
7439-92-1	Lead	2.00	U	W	F
7439-95-4	Magnesium	8880.00			P
7439-96-5	Manganese	4.00	U		P
7439-97-6	Mercury	.10	U		CV
7440-02-0	Nickel	20.00	U		P
7440-09-7	Potassium	5530.00			P
7782-49-2	Selenium	2.00	U	NW	F
7440-22-4	Silver	10.00	U		P
7440-23-5	Sodium	12100.00			P
7440-28-0	Thallium	2.00	U		F
7440-62-2	Vanadium	17.80	B		P
7440-66-6	Zinc	7.00	U		P
	Cyanide				NR

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Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

9613402.2818 0000004

ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 11/16/92

CLIENT: WESTINGHOUSE HANFORD
WORK ORDER: 06168-002-001-9999-00

WESTON BATCH #: 9210L465

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	BO7KL6	Alkalinity	105	MG/L	2.0
		Chloride by IC	13.1	MG/L	5.0
		Fluoride by IC	0.25 u	MG/L	0.25
		Cyanide, Total	20.0 u	UG/L	20.0
		Chemical Oxygen Demand	5.0 u	MG/L	5.0
		Phosphate by IC	0.25 u	MG/L	0.25
		Sulfate by IC	50.8	MG/L	5.0
		Nitrate Nitrite	5.0	MG-N/L	2.0
		Ammonia, as N	0.10 u	MG/L	0.10
		pH	7.6	PH UNITS	0.010
		Sulfide	0.10 u	MG/L	0.10
		Specific Conductance	347	UMHOS/CM	1.0
		Total Dissolved Solids	151	MG/L	5.0
-002	BO7KL7	Total Organic Carbon	0.50 u	MG/L	0.50
		Total Organic Halides	20.0 u	UG/L	20.0
-005	BO7KJ7	Total Organic Carbon	0.50 u	MG/L	0.50
		Total Organic Halides	5.0 u	UG/L	5.0
-006	BO7KB7	Total Organic Carbon	0.50 u	MG/L	0.50
		Total Organic Halides	5.0 u	UG/L	5.0
-007	BO7K87	Total Organic Carbon	0.50 u	MG/L	0.50
		Total Organic Halides	6.2	UG/L	5.0
-008	BO7KH7	Total Organic Carbon	0.50 u	MG/L	0.50
		Total Organic Halides	5.0 u	UG/L	5.0

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