START 9613403.0215 0000010 9210L133-WES-868 0043094

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

WESTON MANAGERS DESIGNERS/CONSULTANTS

Client: WESTINGHOUSE HANFORD
RFW #: 9210L133

W.O. #: 06168-002-001-9999-00
Date Received: 10-02-92

GC/MS VOLATILE

One (1) water sample was collected on 09-30-92.

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

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 not detected in these samples.

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

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

4. The laboratory blank contained the common contaminant Methylene Chloride at a level less than 2x the CRQL.

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

FEB 1998

Margaret M. Beatyke

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

11/4/92
Date

tme/voa/10-133v.cn

WESTON Analytics Use Only
9210L133

Custody Transfer Record/Lab Work Request

WESTON

Page 1 of 1

Client: Westinghouse - Hanford
Est. Final Proj. Sampling Date:
Work Order #: 6168-02-01-7779
Project Contact/Phone #:
AD Project Manager: Josie Edwards
QC: CLP Del: CLP TAT: 35 DAY
Date Rec'd: 10/2/92 Date Due: 11/6/92
Account #: W.S. HANFORD.

Refrigerator #		1							3	3	3	3	3			3
#/Type Container	Liquid	8/6L							1/PL	1/PL	1/PL	1/PL	1/PL			1/PL
	Solid															
Volume	Liquid	40ml							1LHR	1LHR	500ml	250ml	1LHR			1LHR
	Solid															
Preservatives		—							HNO3	NaOH	—	H2SO4	—			HNO3
ANALYSES REQUESTED →		ORGANIC							INORG							
		VOA	BNA	Pest/PCB	Herb				Metal	CN	Anions	NH3N2	AIKL TDS			Diss metals

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

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	WESTON Analytics Use Only: VOA	BNA	Pest/PCB	Herb				Metal	CN	Anions	NH3N2	AIKL TDS			Diss metals
001	B07965			W	9/30/92		~~X~~	BGS 10/1/92						X	X	X	X	X			
002	B07966			⊥	⊥																X
003	B07967			⊥	⊥		X														

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:
code = SMC - 248
Run 1 ms/msD

DATE/REVISIONS:
10/5/92 1. Anions out of Hold at Rec't
10/6/92 2. VOA Cancel for 001 Not on Client
3. COC.
4.
5.
6.

WESTON Analytics Use Only

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

COC Tape was:
1) Present on Outer Package (Y) or N
2) Unbroken on Outer Package (Y) or N
3) Present on Sample (Y) or N
4) Unbroken on Sample (Y) or N
COC Record Present Upon Sample Rec't (Y) or N

Discrepancies Between Samples Labels and COC Record? Y or (N)
NOTES: Anions out of Hold at Rec't

Relinquished by	Received by	Date	Time
Emery	Brian Hoff BGS 10/2/92	10/2/92	1:50 pm

Relinquished by	Received by	Date	Time
	BGS 10/2/92		

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

9613403.0216

000002

9613403.0217 0000092010133

Westinghouse Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 200-BP-1

Collection Date 9/30/92

Ice Chest No. SRL-248

Field Logbook No. ~~EFL~~ HOL 4/30/92 - WHC-N-4461

Bill of Lading/Airbill No. 2521568052

Offsite Property No. ~~W92~~ KT 10/1/92 W93-0-0001-3

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Sample Identification

B07965
- 1, 1L, P, WATER, TAL METALS+Bi(HNO3) (UNFILTERED)
- 1, 500ml, G, WATER, ANIONS(PO4,SO4,Cl,F)
- 1, 250ml, P, WATER, NO2/NO3 (H2SO4)
- 1, 1L, P, WATER, ALKALINITY/TDS
- 1, 1L, P, WATER, CLP-CYANIDE(NaOH)

B07966
- 1, 1L, P, WATER, TAL METALS+Bi(HNO3) (FILTERED)

B07967
- 3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Kirby D. Lee K.D. Lee	Received by: K. Trapp / K Trapp	Date/Time: 10/1/92 1000
Relinquished by: K. Trapp / K. Trapp	Received by:	Date/Time:
Relinquished by: Emery	Received by: Brian [illegible]	Date/Time: 10/2/92 1:50 pm
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

9613403.0218 0000004

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker, G. Hamilton, C. Celiberti Date Sampled 10/1/92 Time 1345 hours

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

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
307965	1; 1L; P;	WATER	TAL METALS + Bi (HNO3); UNFILTERED
	1; 500mL; G	WATER	ANIONS (PO4, SO4, Cl, F)
	1; 250mL; P	WATER	NO2-NO3 (H2SO4)
	1; 1L; P	WATER	ALKALINITY, TDS
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)
07966	1; 1L; P	WATER	TAL METALS + Bi (HNO3); FILTERED
07967	3; 40mL; Gs	WATER	CLP-VOA
			OPC: W92-0-0001-2
			BOL: 272156 5052
			TASK: 92-300

Field Information** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

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

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

A-6000-406(05/90)

FORM OF PAYMENT

0000005

EMERY WORLDWIDE

A CF Company

SERVICES

UNITED STATES / CANADA: Same Day, Time-Change, AM, PM, Second Day, Saturday Delivery

INTERNA: Express, Standard Plus, Preferred, Standard

Bill Shipper / Bill to Consignee / Third Party Billing

Shipper's Account Number: 450281585

Date: 10-01-92 | Origin: PSC | Shipment Number: 2521568

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

Tariff Dest.

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

Canada

Hold for Pick Up

Customer's Reference Numbers: PB7D1/PL3EA/W81232 | 99352

Consignee's Account Number: E | 19341

493-0-0001-3,493-0-0001-1

COOLERS SML247 64#
170 63# ; IT-11 37#
WATER SAMPLES

Pcs.	L	W	H	Total Pieces	Total Weight in Lbs
3	2	1	1	3	164

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

2521568082

OVERNIGHT DELIVERY
SIGNATURE SECURITY SERVICE

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 Shipment | Commodity Code | Free Domicile | Third Party Account Number mandatory for Third Party Billing | Third Party Account Number: E

International Customs Value | International Insurance

Total Transportation Charges | Other Charges/Advances at Origin

3-PKL

EMERY WORLDWIDE — A CF Company

SIGNATURE AND TALLY RECORD

50029-46 (8/89) Litho USA

DATE: 10-01-92 SHIPMENT NO.: 2521568082
SHIPPER: WESTINGHOUSE SHIPPING DEPT (509) 376-
REFERENCE NO.: 493-0-0001-1 & -3

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

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

Pieces | Weight: 164 LBS | Description/Marks: COOLER ID SML248, 64#; #170 63#; IT-11 37# WATER SAMPLES | Emery Authorization No.

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.			10/2/92
7.	Lionville		10/2/92
8.			

SPECIAL HANDLING INSTRUCTIONS

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

Report Date: 11/02/92 14:38

RFW Batch Number: 9210L133 Client: WESTINGHOUSE HANFORD Work Order: ~~6168-02-0~~ 06168-002-001-9999-00 Page: 1a

	Cust ID:	B07967	B07967	B07967	VBLK
Sample Information	RFW#:	003	003 MS	003 MSD	92LVB188-MB1
	Matrix:	WATER	WATER	WATER	WATER
	D.F.:	1.00	1.00	1.00	1.00
	Units:	UG/L	UG/L	UG/L	UG/L
Surrogate Recovery	Toluene-d8	102 %	98 %	100 %	100 %
	Bromofluorobenzene	96 %	94 %	96 %	95 %
	1,2-Dichloroethane-d4	109 %	112 %	113 %	106 %
Chloromethane		10 U	10 U	10 U	10 U
Bromomethane		10 U	10 U	10 U	10 U
Vinyl Chloride		10 U	10 U	10 U	10 U
Chloroethane		10 U	10 U	10 U	10 U
Methylene Chloride		19 B	11 B	10 B	13
Acetone		10 U	10 U	10 U	10 U
Carbon Disulfide		10 U	10 U	10 U	10 U
1,1-Dichloroethene		10 U	124 %	125 %	10 U
1,1-Dichloroethane		10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)		10 U	10 U	10 U	10 U
Chloroform		10 U	10 U	10 U	10 U
1,2-Dichloroethane		10 U	10 U	10 U	10 U
2-Butanone		10 U	10 U	10 U	10 U
1,1,1-Trichloroethane		10 U	10 U	10 U	10 U
Carbon Tetrachloride		10 U	10 U	10 U	10 U
Bromodichloromethane		10 U	10 U	10 U	10 U
1,2-Dichloropropane		10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene		10 U	10 U	10 U	10 U
Trichloroethene		10 U	108 %	110 %	10 U
Dibromochloromethane		10 U	10 U	10 U	10 U
1,1,2-Trichloroethane		10 U	10 U	10 U	10 U
Benzene		10 U	115 %	119 %	10 U
trans-1,3-Dichloropropene		10 U	10 U	10 U	10 U
Bromoform		10 U	10 U	10 U	10 U
4-Methyl-2-pentanone		10 U	10 U	10 U	10 U
2-Hexanone		10 U	10 U	10 U	10 U
Tetrachloroethene		10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane		10 U	10 U	10 U	10 U
Toluene		10 U	111 %	115 %	10 U

*= Outside of EPA CLP QC limits.

9613403.0220
000007

RFW Batch Number: 9210L133 Client: WESTINGHOUSE HANFORD Work Order: ~~6168-02-0~~ Page: 1b

Cust ID:	B07967		B07967		B07967		VBLK	
RFW#:	003		003 MS		003 MSD		92LVB188-MB1	
Chlorobenzene	10	U	111	%	115	%	10	U
Ethylbenzene	10	U	10	U	10	U	10	U
Styrene	10	U	10	U	10	U	10	U
Xylene (total)	10	U	10	U	10	U	10	U

*= Outside of EPA CLP QC limits.

9613403.0221

000008

9613403.0222 1A 0 0 0 0 2 1 CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET 11/4/92

06168-002-001-9999-00

B07967

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

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9210L133-003

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

Lab File ID: B100607

Level: (low/med) LOW

Date Received: 10/02/92

% Moisture: not dec.

Date Analyzed: 10/06/92

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

9613403.0223 0000022 CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07967

Lab Name: Roy F. Weston, Inc. Work Order: ~~6168-02-0~~ 06168-002-001-9999-00

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) WATER

Lab Sample ID: 9210L133-003

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

Lab File ID: B100607

Level: (low/med) LOW

Date Received: 10/02/92

% Moisture: not dec.

Date Analyzed: 10/06/92

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.				

9613403.0224 0000001

RECORD COPY

WESTON

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLE(S) RECEIVED:** 10-02-92
RFW #: 9210L133
W.O. #: 06168-002-001-9999-00

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 Phosphate by IC (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%. All %RPD were within the 20% guidance limit.

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

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

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

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

Margaret M. Beaty for 10/30/92
J. Peter Hershey, Ph.D. Date
Laboratory Manager
Lionville Analytical Laboratory

DEC 1992
RECEIVED
OSM DMO

pas/i10-133

9613403.0225 0000004

ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 10/14/92

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

WESTON BATCH #: 9210L133

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	B07965	Alkalinity	120	MG/L	2.0
		Chloride by IC	10.3	MG/L	5.0
		Fluoride by IC	0.64	MG/L	0.50
		Cyanide, Total	20.0 u	UG/L	20.0
		Phosphate by IC	0.25 u	MG/L	0.25
		Sulfate by IC	40.5	MG/L	5.0
		Nitrate Nitrite	5.6	MG-N/L	1.0
		Total Dissolved Solids	257	MG/L	5.0

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

Client : WESTINGHOUSE HANFORD
RFW# : 9210L133

W.O. #: 6168-02-01
Date Received: 10-02-92

CLP METALS

The set of samples consisted of two (2) water samples collected on 09-30-92.

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

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

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

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

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

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

5. All preparation blank values were within control limits.

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

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

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

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

10. 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.

WESTON

11. 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.

12. 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).

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

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

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

11/24/92
Date

mlj/clp-met.nar

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

Client: WESTINGHOUSE HANFORD
RFW #: 9210L133

W.O. #: 6168-02-01
Date Received: 10-02-92

CLP METALS ADDENDUM

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

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

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

11/24/92
Date

mlj\clp-met.nar

ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 11/16/92

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

WESTON BATCH #: 9210L133

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-001	B07965	Silver, Total	10.0	u	UG/L	10.0
		Aluminum, Total	200	u	UG/L	200
		Arsenic, Total	10.0	u	UG/L	10.0
		Barium, Total	200	u	UG/L	200
		Beryllium, Total	5.0	u	UG/L	5.0
		Bismuth, Total	150	u	UG/L	150
		Calcium, Total	38200		UG/L	5000
		Cadmium, Total	5.0	u	UG/L	5.0
		Cobalt, Total	50.0	u	UG/L	50.0
		Chromium, Total	10.0	u	UG/L	10.0
		Copper, Total	25.0	u	UG/L	25.0
		Iron, Total	100	u	UG/L	100
		Mercury, Total	0.20	u	UG/L	0.20
		Potassium, Total	5890		UG/L	5000
		Magnesium, Total	12300		UG/L	5000
		Manganese, Total	15.0	u	UG/L	15.0
		Sodium, Total	27200		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	6.6		UG/L	5.0
		Thallium, Total	10.0	u	UG/L	10.0
		Vanadium, Total	50.0	u	UG/L	50.0
		Zinc, Total	23.4		UG/L	20.0

ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 11/16/92

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

WESTON BATCH #: 9210L133

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-002	B07966	Silver, Soluble	10.0	u	UG/L	10.0
		Aluminum, Soluble	200	u	UG/L	200
		Arsenic, Soluble	10.0	u	UG/L	10.0
		Barium, Soluble	200	u	UG/L	200
		Beryllium, Soluble	5.0	u	UG/L	5.0
		Bismuth, Soluble	150	u	UG/L	150
		Calcium, Soluble	37300		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	5840		UG/L	5000
		Magnesium, Soluble	11900		UG/L	5000
		Manganese, Soluble	15.0	u	UG/L	15.0
		Sodium, Soluble	25500		UG/L	5000
		Nickel, Soluble	40.0	u	UG/L	40.0
		Lead, Soluble	3.0	u	UG/L	3.0
		Antimony, Soluble	60.0	u	UG/L	60.0
		Selenium, Soluble	5.0	u	UG/L	5.0
		Thallium, Soluble	10.0	u	UG/L	10.0
		Vanadium, Soluble	50.0	u	UG/L	50.0
		Zinc, Soluble	20.0	u	UG/L	20.0

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07965

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP133

Matrix (soil/water): WATER Lab Sample ID: 921013301

Level (low/med): LOW Date Received: 10/02/92

% 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	6.40	B	NW	F
7440-39-3	Barium	35.30	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	7.00	U		P
7440-70-2	Calcium	38200.00			P
7440-47-3	Chromium	9.00	U		P
7440-48-4	Cobalt	9.00	U		P
7440-50-8	Copper	8.00	U		P
7439-89-6	Iron	62.00	B		P
7439-92-1	Lead	2.00	U	W	F
7439-95-4	Magnesium	12300.00			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	5890.00			P
7782-49-2	Selenium	6.60		NS	F
7440-22-4	Silver	10.00	U		P
7440-23-5	Sodium	27200.00			P
7440-28-0	Thallium	2.00	U		F
7440-62-2	Vanadium	15.50	B		P
7440-66-6	Zinc	23.40			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

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07966

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP133

Matrix (soil/water): WATER Lab Sample ID: 921013302

Level (low/med): LOW Date Received: 10/02/92

% 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	7.20	B	NW	F
7440-39-3	Barium	33.10	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	7.00	U		P
7440-70-2	Calcium	37300.00			P
7440-47-3	Chromium	9.00	U		P
7440-48-4	Cobalt	9.00	U		P
7440-50-8	Copper	8.00	U		P
7439-89-6	Iron	15.00	U		P
7439-92-1	Lead	2.00	U	W	F
7439-95-4	Magnesium	11900.00			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	5840.00			P
7782-49-2	Selenium	2.90	B	NW	F
7440-22-4	Silver	10.00	U		P
7440-23-5	Sodium	25500.00			P
7440-28-0	Thallium	2.00	U		F
7440-62-2	Vanadium	12.20	B		P
7440-66-6	Zinc	19.60	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments: