

START

9613451.2415

9207L061-WES-732

0044592  
RECORD COPY



ROY F. WESTON, INC.  
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD  
RFW #: 9207L061  
W.O. #: 6168-02-01

SAMPLES RECEIVED: 07-17-92

INORGANIC NARRATIVE

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

1. All sample holding times as required by 40CFR136 were met.
2. All preparation blank results were below the required detection limit.
3. All calibration verification checks were within the required control limits of 90-110%. Calibration verification is performed using independent standards.
4. Matrix spike recoveries are summarized on the Inorganic Accuracy Report contained within this document. All recoveries were within the 75-125% guidance limits. All %RPD were within the 20% guidance limit.
5. Replicate results are summarized on the Inorganic Precision Report contained within this document. All results were within the 20% RPD guidance limit.
6. 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. Beatty for*  
 Jack R. Tuschall, Ph.D.  
 Laboratory Manager  
 Lionville Analytical Laboratory

8/3/92  
 Date



ncc/i07-061

9613451.2416

ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 07/27/92

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

WESTON BATCH #: 9207L061

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	B018Z3	% Solids Chromium VI	98.8 0.10 u	% MG/KG	0.10 0.10

# Custody Transfer Record/Lab Work Request

9207L061

Client: <u>Westinghouse Hanford</u>	Refrigerator #	Sub	4	4
Est. Final Proj. Sampling Date	#/Type Container	Liquid		
Work Order #: <u>6168-02-01-0000</u>		Solid	16	16
Project Contact/Phone #	Volume	Liquid		
AD Project Manager: <u>Joseph King</u>		Solid	100	20
QC: <u>Clp</u> Del: <u>Clp</u> TAT: <u>35 days</u>	Preservatives		20	20
Date Rec'd: <u>7/17/92</u> Date Due: <u>8/21/92</u>	ANALYSES REQUESTED	ORGANIC		INORG
Account #: <u>WS - HANFORD</u>		VOA		Metal
		BNA		CN
		Pest/PCB		
		Herb		

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 (✓)		Matrix	Date Collected	Time Collected	WESTON Analytics Use Only		
			MS	MSD				✓	✓	✓
	001	BO1873			S	7/15/92	1155	✓	✓	✓

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions: SAF, 92-226  
Radio dom = Gamma dom  
original Recorrette

- DATE/REVISIONS:
- \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_

WESTON Analytics Use Only

Samples were: 1) Shipped <input checked="" type="checkbox"/> or Hand Delivered _____ Airbill # <u>2505264142</u>	COC Tape was: 1) Present on Outer Package <input checked="" type="checkbox"/> or N 2) Unbroken on Outer Package <input checked="" type="checkbox"/> or N 3) Present on Sample <input checked="" type="checkbox"/> or N 4) Unbroken on Sample <input checked="" type="checkbox"/> or N COC Record Present Upon Sample Rec't <input checked="" type="checkbox"/> or N
2) Ambient or Chilled <input checked="" type="checkbox"/>	
3) Received in Good Condition <input checked="" type="checkbox"/> or N	
4) Labels Indicate Properly Preserved <input checked="" type="checkbox"/> or N	
5) Received Within Holding Times <input checked="" type="checkbox"/> or N	

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
<u>Joe Emery</u>	<u>J. King</u>	<u>7-17-92</u>	<u>14:00</u>				
						<u>7-17-92</u>	

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

96134512417



9613451.2419

CHAIN OF CUSTODY

002699

copy  
Name: Dr. C. E. Heiden

Telephone: (509) 376-2640

Designation/Sampling Locations: Sodium Dichromate Barrel - ERA

Collection Date: 7-15-92

SAF 92-226

Ice Chest No. SM 91

Field Logbook No. WHC-17-205 15

Bill of Lading/Airbill No. 2509569142

Offsite Property No. \_\_\_\_\_

Method of Shipment: Emery Air Express

Shipped to: Weston

Possible Sample Hazards/Remarks: None Known

See S.A.B. for individual bottle sizes and analysis

Sample Identification

B01873 (3) Bottles

CEZ 7-16-92

CEZ 7-16-92

Field Transfer of Custody      **CHAIN OF POSSESSION**      (Sign and Print Names)

Relinquished by: <u>CE Zandy</u>	Received by:	Date/Time:
Relinquished by: <u>Fed-Ex</u>	Received by: <u>Brian E. Staff</u>	Date/Time: <u>7/17/92 1400</u>
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method: \_\_\_\_\_ Disposed by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments: \_\_\_\_\_

FORM OF PAYMENT

Check  G.C.

R.C.C.O.D.

Bill to Shipper  Bill to Consignee  Third Party Billing

92071061

**EMERY  
WORLDWIDE**



SERVICES

UNITED STATES / CANADA

INTERNATIONAL

Same Day  Express  Business Documents   
 AM  PM  Preferred  Customs Clearance   
 Second Day  Saturday Delivery  Standard  Delivery

Shipper's Account Number  
**E 850281585**

Date: 07-16-92  
Origin: PSC  
Shipment Number: 250986914 2

From: WESTINGHOUSE SHIPPING DEPT (509) 376-6665

To: JOSIE KING

Tariff Dest. Gateway

U.S. DEPARTMENT OF ENERGY C/O WESTINGHOUSE HANFORD

RF WESTON INC

Check to \$

BLDG 1163 2355 STEVENS DRIVE

208 WELSH POOL ROAD

Hold for Pick Up

RICHLAND WA

LIONVILLE PA

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

Customer's Reference Numbers

W12410 P3C1N W92-0-0486#29 9332

Consignee's Account Number

19341

Description	Dimensions	Total Pieces	Total Weight
1 POLYCOOLER SML 91 SAMPLES B018Z3 W92-0-0436#29	1	1	39

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

Declared Value \$

Remarks: OVERNIGHT DELIVERY

Zip Ship   
 Mark if Emery Packaging is used  
 Urgent Letter  9X12   
 Urgent Pack  12X15



Shipper's Signature X

Third Party Account Number: E

Free Domicile

International Customs Value International Insurance

Base Charge

Total Transportation Charges Other Charges/Advance at Origin (X/NO) \$

**3-PHLA**  
Terms and Conditions in Back

0242-1542196



Roy F. Weston, INC.  
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD  
RFW #: 9207L061  
W.O. #: 6168-02-01

SAMPLES RECEIVED: 07/17/92

METALS NARRATIVE

One (1) soil sample was collected on 07/15/92.

The sample and its associated QC 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.
7. All duplicate analyses were within the 20% RPD control limits with the exception of chromium. All exceptions are flagged with a "\*" on the CLP forms.
8. Quarterly Detection Limits, ICP Interelement Correction Factors and ICP Linear Ranges for IC3 are included in this package, but do not appear on EDD.

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

08.28.92

Date

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0000010

ROY F. WESTON INC.

INORGANIC DATA SUMMARY REPORT 08/26/92

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

WESTON BATCH #: 9207L061

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	B018Z3	Chromium, Total	12.0	MG/KG	2.0

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U.S. EPA CLP

0000017

EPA SAMPLE NO.

1  
INORGANIC ANALYSIS DATA SHEET

B018Z3

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

Lab Code: WESTON Case No.: WEST SAS No.: SDG No.: CLP061

Matrix (soil/water): SOIL Lab Sample ID: 920706101

Level (low/med): LOW Date Received: 7/17/92

% Solids: 98.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	12.00		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: BROWN

Clarity After:

Artifacts:

Comments: