

0044227

3422-SCU-071

### SDG Memo/Sample Summary

Client Name: WESTINGHOUSE HANFORD CO. Date: 1 Dec 1992  
 Project Name: SITE WIDE V Update No.:  
 SDG No.: 3422 Work Order No.: 32359-52  
 Project Manager: J. DEWALD  
 Mail Date:

Client Samp No.	S-Cubed Samp No.	Date Rcvd	Date Samp	Matrix	ANIONS	FURN7000	HG7000	ICP6010	NO3/NO2	S	TALK	TC	TOC
B06JC6	3422-01	11-11-1992	11-6-1992	SOIL	X	X	X	X	X	X	X	X	X
B06JC6MS	3422-01MS	11-11-1992	11-6-1992	SOIL	X	X	X	X	X	X	X	X	X
B06JC6REP	3422-01REP	11-11-1992	11-6-1992	SOIL	X	X	X	X	X	X	X		

(X) = Non-Billable Sample



## *NARRATIVE*

December 7, 1992

**Narrative Project:** Site Wide V  
**Reference No.:** 32359-52  
**Client:** WHC  
**SDG No.:** 3422

---

### **METALS**

The samples were analyzed according to EPA Method 6010 and the 7000 series for the TCL metals list. There were no difficulties with the analyses. No dilutions were required. The quality control results were acceptable. The soil LCS results were within advisory ranges.

### **ANIONS**

The samples were analyzed according to EPA Method 300.0 for anion. For soil, 60 gm of sample was leached into 300 ml of DI Type II water prior to analysis. The quality control results were acceptable.

### **NO3/NO2**

The samples were analyzed according to EPA Method 353.3 for NO<sub>3</sub>/NO<sub>2</sub>. For soil, 60 gm of sample was leached into 300 ml of DI Type II water prior to analysis. The quality control results were acceptable. MS and %RPD recoveries were within the control limits.

### **SULFIDE**

The samples were analyzed according to EPA Method 9030 for sulfide. For soil, 40 gm of sample was leached into 200 ml of DI Type II water prior to analysis. The quality control results were acceptable. MS and %RPD recoveries were within the control limits.

## ***NARRATIVE***

### **TOTAL ALKALINITY**

The samples were analyzed according to EPA Method 310.1 for total alkalinity. For soil, 5 gm of sample was leached into 25 ml of DI Type II water prior to analysis. The quality control results were acceptable.

### **TOTAL CARBON**

The samples were analyzed according to EPA Method 9060 by combustion and then IR analysis. Prior to analysis, a sample aliquot was ground to a fine powder texture. The sample then went through the combustion and IR analysis process. The quality control results were acceptable. %RPD and MS recoveries were within the control limits.

### **TOTAL ORGANIC CARBON**

The samples were analyzed according to EPA Method 9060 by combustion and then IR analysis. Prior to analysis, a sample aliquot was measured and phosphoric acid was added to the soil. The mixture was placed in an oven at 70 C for one hour, then removed, cooled, and ground to a fine powder texture. The sample then went through the combustion and IR analysis process. The quality control results were acceptable. MS and %RPD recoveries were within the control limits.

  
-----  
John DeWald  
Project Manager

enclosures

r:\narr\n3422

32359-52



Pacific Northwest Laboratories

CHAIN OF CUSTODY

YBB 110692A

Company Contact: Bruce Bjornstool / J.G. Lucas <sup>11-10-92</sup> <sub>22</sub> Telephone: 6-2289 <sup>11-10-92</sup> <sub>22</sub>  
 Samples Collected by: Bruce Bjornstool Date: 11/6/92 Time: 11:30  
 Sample Location: 099-4B-76 (Yakima Baricada)  
 Ice Chest No.: RM# 22 <sup>11-10-92</sup> Field Logbook Page No.: EFL-1023  
 Remarks: None <sup>11-10-92</sup> <sub>22</sub> PJ 13 <sup>11-10-92</sup> <sub>22</sub>

Method of Shipment: Emery to S-Cube, San Diego, CA <sup>11-10-92</sup> <sub>22</sub>

Sample Identification

746.5' Core barrel sample  
just above top of basal

John Lucas (WHL)

BOGJCB - (1) 250ml  
AG

11-10-92  
22

Bill of Lading - 2519006897 <sup>11-10-92</sup> <sub>22</sub>  
 Offsite Property Control No - W93-0-0002 #40 <sup>11-10-92</sup> <sub>22</sub>  
 Chain of Possession

Relinquished by:

Received by:

Date/Time:

Bruce Bjornstool

John Lucas

11-6-92 1455

Relinquished by:

Received by:

Date/Time:

John Lucas

Elaine Waters

11-11-92 1300

Relinquished by:

Received by:

Date/Time:

# Next Day Delivery

Contractor <b>Westinghouse Hanford Co.</b>	<b>OFF-SITE PROPERTY CONTROL</b>	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) <b>W93-0-0002 #40</b>
--	----------------------------------	--

**PART I - TO BE COMPLETED BY ORIGINATOR**

Department <b>Env. Restor. Eng.</b>	Section <b>Site Remediation</b>	Unit
The following items are to be shipped from <input checked="" type="checkbox"/> Contractor <input type="checkbox"/> Vendor		
Routing <b>Emery</b> <input checked="" type="checkbox"/> Contractor <input type="checkbox"/> Vendor		
Shipped to <b>S - Cubed 3398 Carmel Mt. Rd. San Diego, CA 92121-1095</b>	Off-site Custodian <b>John Dewald</b>	
Full Title		

Quantity	Description (Include Serial and any Government Tag Numbers)	Original Cost
1  17 lbs	Poly ice chest (RM # 22) containing a glass sample container of soil packed in blue ice and vermiculite  Sample # B06 J06	RECEIVED  NOV 10 1992

**PROPERTY RECORDS**

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

**Necessity for the Off-Site Use of this Property**

Program not available onsite  
 Bill of Lading 2519006897

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

RM Clearance for Public Release <b>L9P</b>	RM Survey No <b>366</b>	Date <b>11-10-92</b>
Location of Property (Area & Bldg.) - <b>746.5 ft</b> <b>Yolma Baricade Berchote 677-48-96</b>	Contact <b>V.G. Lucas</b>	Phone <b>6-2789</b>
Date Ready for Shipment <b>11-10-92</b>	Cost Code to be Charged <b>EAGAI 91353</b>	Approximate Date This Property will be Returned <b>N/A</b>
Originated By <b>V.G. Lucas</b>	Date <b>11-10-92</b>	Authorized By <b>[Signature]</b>
Signature and Name of Property Control	Custodian Date <b>[Signature]</b>	Date <b>11/10/92</b>

**PART II - TO BE COMPLETED BY SHIPPING**

Signature of Recipient <b>[Signature]</b>	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date <b>11-10-92</b>				

**DISTRIBUTION**

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



U.S. EPA - CLP

1  
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3422-01

Lab Name: S\_CUBED \_\_\_\_\_ Contract: 32359-52 \_\_\_\_\_

Lab Code: S3 \_\_\_\_\_ Case No.: SITEV SAS No.: \_\_\_\_\_ SDG No.: 3422 \_\_\_\_\_

Matrix (soil/water): SOIL \_\_\_\_\_ Lab Sample ID: 3422-01 \_\_\_\_\_

Level (low/med): LOW \_\_\_\_\_ Date Received: 11/11/92

% Solids: \_\_\_\_\_ 88.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4480	—	—	P
7440-36-0	Antimony	13.6	U	—	P
7440-38-2	Arsenic	0.68	U	—	F
7440-39-3	Barium	172	—	—	P
7440-41-7	Beryllium	0.23	B	—	P
7440-43-9	Cadmium	0.68	U	—	P
7440-70-2	Calcium	2670	—	—	P
7440-47-3	Chromium	10	—	—	P
7440-48-4	Cobalt	6.6	B	—	P
7440-50-8	Copper	6.6	—	—	P
7439-89-6	Iron	15500	—	—	P
7439-92-1	Lead	3.6	—	—	F
7439-95-4	Magnesium	2650	—	—	P
7439-96-5	Manganese	126	—	—	P
7439-97-6	Mercury	0.11	U	—	CV
7440-02-0	Nickel	10.2	—	—	P
7440-09-7	Potassium	554	U	—	P
7782-49-2	Selenium	0.68	U	—	F
7440-22-4	Silver	8.1	—	—	P
7440-23-5	Sodium	575	U	—	P
7440-28-0	Thallium	0.68	U	—	F
7440-62-2	Vanadium	28.5	—	—	P
7440-66-6	Zinc	55.0	—	—	P

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

B06JC6 \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

LABORATORY: S-CUBED  
CLIENT: WHC  
PROJECT: SITE WIDE Y  
LOT #: 3422  
FILE #: ANI3422S  
DISK #: ANI1123  
METHOD NO.: 300.0  
UNIT: MG/KG

DATA REVIEWER: *cn 11/23*  
PROJECT REVIEWER:  
CHARGE #: 32359-52  
DATE SAMPLED: 11-06-92  
DATE RECEIVED: 11-11-92  
PREP DATE: 11-16-92  
DATE ANALYZED: 11-16-92  
SAMPLE TYPE: SOIL

LAB ID	F	Cl	NO2	Br	NO3	PO4	SO4		
3422-01	0.939	4.78	0.00	1.60	0.00	1.87	4.94		

The sample of 60 gm was leached into 300 mL DI type II water prior to analysis. All QC requirements were met.





