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Prepared for the U.S. Department of Energy
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Report for Batch Leach Analyses on Sediments at 100-HR-3 Operable Unit, Boreholes C7620, C7621, C7622, C7623, C7626, C7627, C7628, C7629, C7630, and C7866.

Revision 1.

Michael Lindberg

March 2012



Pacific Northwest
NATIONAL LABORATORY

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**Report for Batch Leach Analyses on
Sediments at 100-HR-3 Operable
Unit, Boreholes C7620, C7621,
C7622, C7623, C7626, C7627, C7628,
C7629, C7630, and C7866.**

Revision 1.

MJ Lindberg

March 2012

Prepared for the U.S. Department of Energy
under Contract DE-AC05-76RL01830

Pacific Northwest National Laboratory
Richland, Washington 99352

03/30/12 15:13

To: John Smoot

From: Michael J. Lindberg



Environmental Sciences Laboratory
Energy and Environment Directorate, Pacific Northwest National Laboratory

Subject: Analytical Data Report for Sediment Samples Collected From 100-HR-3 Operable Unit, Sample Delivery Group ESL090020, SAF Number F10-214

This is Revision 1 to the initial analytical report. Revision 1 contains the analytical results for the sample with HEIS number B2H4X7 and Laboratory ID 1201003-01. No other modifications were made.

This letter contains the following information for sample delivery group ESL090020

- Cover Sheet
- Narrative
- Analytical Results
- Quality Control
- Chain of Custodies

Introduction

Between November 4, 2010 and October 26, 2011 sediment samples were received from 100-HR-3 Operable Unit for geochemical studies.

Analytical Results/Methodology

The analyses for this project were performed at the 331 building located in the 300 Area of the Hanford Site. The analyses were performed according to Pacific Northwest National Laboratory (PNNL) approved procedures and/or nationally recognized test procedures. The data sets include the sample identification numbers, analytical results, estimated quantification limits (EQL), and quality control data.

Quality Control

The preparatory and analytical quality control requirements, calibration requirements, acceptance criteria, and failure actions are defined in the on-line QA plan "Conducting Analytical Work in Support of Regulatory Programs" (CAW). This QA plan implements the Hanford Analytical Services Quality Assurance Requirements Documents (HASQARD) for PNNL.

Definitions

Dup	Duplicate
RPD	Relative Percent Difference
NR	No Recovery (percent recovery less than zero)
ND	Non-Detectable
%REC	Percent Recovery

Sample Receipt

Samples were received with a chain of custody (COC) and were analyzed according to the sample identification numbers supplied by the client. All Samples were refrigerated upon receipt until prepared for analysis.

All samples were received with custody seals intact unless noted in the Case Narrative.

Holding Times

Holding time is defined as the time from sample preparation to the time of analyses. The prescribed holding times were met for all analytes unless noted in the Case Narrative.

Analytical Results

All reported analytical results meet the requirements of the CAW or client specified SOW unless noted in the case narrative.

Case Narrative Report

Hold Time:

Due to the requirements of the statement of work and sampling events in the field, the 28 day and the 48 hr requirements cannot be met. The statement of work requires samples to be selected at the completion of the borehole. It is not always possible to complete a borehole and have the samples shipped to the laboratory within the hold time requirements.

Preparation Blank (PB):

No Discrepancies Noted

Duplicate (DUP):

Duplicate RPD for Uranium 238 (38.9%) was above the acceptance limit (35) in 1E05003-DUP1 for ICPMS-Tc_U-WE
The sample result is less than 10 times the detection limits. Duplicate recoveries are not applicable to this analyte.

Duplicate RPD for Silver 107 (68.2%) was above the acceptance limit (35) in 2C06004-DUP1 for ICPMS-RCRA-AE
The sample result is less than 10 times the detection limits. Duplicate recoveries are not applicable to this analyte.

Laboratory Control Samples (LCS):

No Discrepancies Noted

Post Spike (PS):

No Discrepancies Noted

Matrix Spike (MS):

Matrix Spike Recovery for Chromium, Hexavalent (48.8%) was outside acceptance limits (75-125) in 1E23001-MS1 for Hexavalent Chromium/Soil
Potential Matrix interference. Sample results associated with this batch are below the EQL. There should be no impact to the data as reported.

Matrix Spike Recovery for Chromium, Hexavalent (50.2%) was outside acceptance limits (75-125) in 2B22010-MS1 for Hexavalent Chromium/Soil
Potential Matrix interference. Sample results associated with this batch are below the EQL. There should be no impact to the data as reported.

Other QC Criteria:

No Discrepancies Noted

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Analytical Manager as verified by this signature.



Michael Lindberg

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SAMPLES INCLUDED IN THIS REPORT

100-HR-3 Remedial Optimization Wells

HEIS No.	Laboratory ID	Matrix	Date Collected	Date Received
B28JK2	1011025-01	SOIL	11/3/10 10:20	11/4/10 14:30
B27C24	1011025-02	SOIL	11/9/10 09:25	11/11/10 13:30
B28KF6	1011025-03	SOIL	11/5/10 14:54	11/11/10 13:30
B28KW9	1011025-04	SOIL	11/12/10 12:15	11/16/10 08:40
B28N30	1011025-05	SOIL	11/11/10 11:30	11/16/10 08:40
B273M1	1011025-07	SOIL	11/19/10 10:15	12/2/10 09:05
B27C13	1011025-08	SOIL	12/1/10 11:03	12/2/10 09:05
B29M71	1011025-09	SOIL	12/1/10 11:03	12/2/10 09:05
B28YW2	1011025-10	SOIL	12/3/10 08:35	12/6/10 13:20
B28CP2	1011025-11	SOIL	1/14/11 08:50	1/19/11 13:40
B29C20	1011025-13	SOIL	1/22/11 08:18	1/24/11 13:30
B29P71	1011025-17	SOIL	1/25/11 09:35	1/26/11 13:15
B29HN7	1011025-21	SOIL	2/16/11 14:35	2/17/11 13:30
B2B4H0	1011025-29	SOIL	3/16/11 13:05	3/21/11 13:30
B2C647	1011025-33	SOIL	4/14/11 14:40	4/25/11 13:00
B2H4X7	1201003-01	SOIL	10/25/11 09:30	10/26/11 13:00

The following analyses were performed on the following samples included in this report:

Metals 1:1 DI Water Extract by ICPMS

Metals Acid Extract by ICPMS

Hexavalent Chromium by Colorimetric Determination

Metals 1:1 Water Extract by ICPOES

Metals Acid Extract by ICPOES

Moisture Content

Tc_U Acid Extract by ICPMS

Tc_U 1:1 DI Water Extract by ICPMS

Wet Chemistry

Moisture Content (% by Weight) by AGG-WC-001

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1011025-01	B28JK2	3.13E1	N/A	5/02/11	1D29007
1011025-02	B27C24	3.04E1	N/A	5/02/11	1D29007
1011025-03	B28KF6	2.66E1	N/A	5/02/11	1D29007
1011025-04	B28KW9	2.22E1	N/A	5/02/11	1D29007
1011025-05	B28N30	3.42E1	N/A	5/02/11	1D29007
1011025-07	B273M1	1.32E1	N/A	5/02/11	1D29007
1011025-08	B27C13	1.67E1	N/A	5/02/11	1D29007
1011025-09	B29M71	1.88E1	N/A	5/02/11	1D29007
1011025-10	B28YW2	2.82E1	N/A	5/02/11	1D29007
1011025-11	B28CP2	1.20E1	N/A	5/02/11	1D29007
1011025-13	B29C20	2.39E1	N/A	5/02/11	1D29007
1011025-17	B29P71	2.18E1	N/A	5/02/11	1D29007
1011025-21	B29HN7	1.72E1	N/A	5/02/11	1D29007
1011025-29	B2B4H0	1.51E1	N/A	5/02/11	1D29007
1011025-33	B2C647	2.10E1	N/A	5/02/11	1D29007
1201003-01	B2H4X7	1.33E1	N/A	2/20/12	2B14001

Hexavalent Chromium/Soil

Chromium, Hexavalent (ug/g dry) by Colorimetric Determination

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1011025-01	B28JK2	<6.62E-1	6.62E-1	5/20/11	1E23001
1011025-02	B27C24	<6.52E-1	6.52E-1	5/20/11	1E23001
1011025-03	B28KF6	<6.33E-1	6.33E-1	5/20/11	1E23001
1011025-04	B28KW9	<6.10E-1	6.10E-1	5/20/11	1E23001
1011025-05	B28N30	<6.72E-1	6.72E-1	5/20/11	1E23001
1011025-07	B273M1	<5.71E-1	5.71E-1	5/20/11	1E23001
1011025-08	B27C13	<5.85E-1	5.85E-1	5/20/11	1E23001
1011025-09	B29M71	<5.94E-1	5.94E-1	5/20/11	1E23001
1011025-10	B28YW2	<6.37E-1	6.37E-1	5/20/11	1E23001
1011025-11	B28CP2	<5.59E-1	5.59E-1	5/20/11	1E23001
1011025-13	B29C20	<6.19E-1	6.19E-1	5/20/11	1E23001
1011025-17	B29P71	<6.09E-1	6.09E-1	5/20/11	1E23001
1011025-21	B29HN7	<5.87E-1	5.87E-1	5/20/11	1E23001
1011025-29	B2B4H0	<5.75E-1	5.75E-1	5/20/11	1E23001
1011025-33	B2C647	<6.05E-1	6.05E-1	5/20/11	1E23001
1201003-01	B2H4X7	<5.65E-1	5.65E-1	2/22/12	2B22010

Hexavalent Chromium/1:1 Water Extract

Chromium, Hexavalent (ug/g dry) by Colorimetric Determination

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1011025-01	B28JK2	<4.99E-2	4.99E-2	5/05/11	1E05001
1011025-02	B27C24	<5.00E-2	5.00E-2	5/05/11	1E05001
1011025-03	B28KF6	<5.00E-2	5.00E-2	5/05/11	1E05001
1011025-04	B28KW9	<5.00E-2	5.00E-2	5/05/11	1E05001
1011025-05	B28N30	<5.00E-2	5.00E-2	5/05/11	1E05001
1011025-07	B273M1	<5.10E-2	5.10E-2	5/05/11	1E05001
1011025-08	B27C13	<7.10E-2	7.10E-2	5/05/11	1E05001
1011025-09	B29M71	<5.00E-2	5.00E-2	5/05/11	1E05001
1011025-10	B28YW2	<5.00E-2	5.00E-2	5/05/11	1E05001
1011025-11	B28CP2	<5.00E-2	5.00E-2	5/05/11	1E05001
1011025-13	B29C20	<4.99E-2	4.99E-2	5/05/11	1E05001
1011025-17	B29P71	5.90E-2	5.00E-2	5/05/11	1E05001
1011025-21	B29HN7	<5.00E-2	5.00E-2	5/05/11	1E05001
1011025-29	B2B4H0	<4.99E-2	4.99E-2	5/05/11	1E05001
1011025-33	B2C647	<5.47E-2	5.47E-2	5/05/11	1E05001
1201003-01	B2H4X7	<5.00E-2	5.00E-2	2/22/12	2B22009

Total Metals by PNNL-AGG-ICP-AES/1:1 Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No. 7440-39-3	B28JK2 Barium	Lab ID: 1011025-01					
		<1.24E-1	ug/g dry	1.24E-1	5/09/11	1E09001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27C24 Barium	Lab ID: 1011025-02					
		<1.24E-1	ug/g dry	1.24E-1	5/09/11	1E09001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28KF6 Barium	Lab ID: 1011025-03					
		<1.24E-1	ug/g dry	1.24E-1	5/09/11	1E09001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28KW9 Barium	Lab ID: 1011025-04					
		<1.24E-1	ug/g dry	1.24E-1	5/09/11	1E09001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28N30 Barium	Lab ID: 1011025-05					
		<1.24E-1	ug/g dry	1.24E-1	5/09/11	1E09001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273M1 Barium	Lab ID: 1011025-07					
		<1.26E-1	ug/g dry	1.26E-1	5/09/11	1E09001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27C13 Barium	Lab ID: 1011025-08					
		<1.76E-1	ug/g dry	1.76E-1	5/09/11	1E09001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B29M71 Barium	Lab ID: 1011025-09					
		<1.24E-1	ug/g dry	1.24E-1	5/09/11	1E09001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28YW2 Barium	Lab ID: 1011025-10					
		<1.24E-1	ug/g dry	1.24E-1	5/09/11	1E09001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28CP2 Barium	Lab ID: 1011025-11					
		<1.24E-1	ug/g dry	1.24E-1	5/09/11	1E09001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B29C20 Barium	Lab ID: 1011025-13					
		<1.23E-1	ug/g dry	1.23E-1	5/09/11	1E09001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B29P71 Barium	Lab ID: 1011025-17					
		<1.24E-1	ug/g dry	1.24E-1	5/09/11	1E09001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B29HN7 Barium	Lab ID: 1011025-21					
		<1.24E-1	ug/g dry	1.24E-1	5/09/11	1E09001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B2B4H0 Barium	Lab ID: 1011025-29					
		<1.24E-1	ug/g dry	1.24E-1	5/09/11	1E09001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B2C647 Barium	Lab ID: 1011025-33					
		<1.36E-1	ug/g dry	1.36E-1	5/09/11	1E09001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B2H4X7 Barium	Lab ID: 1201003-01					
		<1.24E-1	ug/g dry	1.24E-1	3/07/12	2C06001	PNNL-AGG-ICP-AES

Total Metals by PNNL-AGG-ICP-AES/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No. 7440-39-3	B28JK2 Barium	Lab ID: 1011025-01 8.65E1	ug/g dry 1.89E0		5/09/11	1E09002	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27C24 Barium	Lab ID: 1011025-02 5.00E1	ug/g dry 1.88E0		5/09/11	1E09002	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28KF6 Barium	Lab ID: 1011025-03 5.20E1	ug/g dry 1.83E0		5/09/11	1E09002	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28KW9 Barium	Lab ID: 1011025-04 4.95E1	ug/g dry 1.76E0		5/09/11	1E09002	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28N30 Barium	Lab ID: 1011025-05 5.79E1	ug/g dry 1.93E0		5/09/11	1E09002	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273M1 Barium	Lab ID: 1011025-07 7.12E1	ug/g dry 1.63E0		5/09/11	1E09002	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27C13 Barium	Lab ID: 1011025-08 1.12E2	ug/g dry 1.66E0		5/09/11	1E09002	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B29M71 Barium	Lab ID: 1011025-09 9.13E1	ug/g dry 1.70E0		5/09/11	1E09002	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28YW2 Barium	Lab ID: 1011025-10 8.13E1	ug/g dry 1.86E0		5/09/11	1E09002	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28CP2 Barium	Lab ID: 1011025-11 4.50E1	ug/g dry 1.62E0		5/09/11	1E09002	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B29C20 Barium	Lab ID: 1011025-13 2.82E1	ug/g dry 1.78E0		5/09/11	1E09002	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B29P71 Barium	Lab ID: 1011025-17 7.01E1	ug/g dry 1.76E0		5/09/11	1E09002	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B29HN7 Barium	Lab ID: 1011025-21 1.17E2	ug/g dry 1.66E0		5/09/11	1E09002	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B2B4H0 Barium	Lab ID: 1011025-29 3.27E1	ug/g dry 1.66E0		5/09/11	1E09002	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B2C647 Barium	Lab ID: 1011025-33 6.39E1	ug/g dry 1.73E0		5/09/11	1E09002	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B2H4X7 Barium	Lab ID: 1201003-01 3.03E1	ug/g dry 1.64E0		3/07/12	2C06002	PNNL-AGG-ICP-AES

Radionuclides by ICP-MS/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B28JK2	Lab ID: 1011025-01					
U-238	Uranium 238	5.64E-1	ug/g dry	4.59E-2	5/05/11	1E05004	PNNL-AGG-415
HEIS No.	B27C24	Lab ID: 1011025-02					
U-238	Uranium 238	3.16E-1	ug/g dry	4.58E-2	5/05/11	1E05004	PNNL-AGG-415
HEIS No.	B28KF6	Lab ID: 1011025-03					
U-238	Uranium 238	4.30E-1	ug/g dry	4.45E-2	5/05/11	1E05004	PNNL-AGG-415
HEIS No.	B28KW9	Lab ID: 1011025-04					
U-238	Uranium 238	7.17E-1	ug/g dry	4.27E-2	5/05/11	1E05004	PNNL-AGG-415
HEIS No.	B28N30	Lab ID: 1011025-05					
U-238	Uranium 238	1.00E0	ug/g dry	4.68E-2	5/05/11	1E05004	PNNL-AGG-415
HEIS No.	B273M1	Lab ID: 1011025-07					
U-238	Uranium 238	1.84E-1	ug/g dry	3.96E-2	5/05/11	1E05004	PNNL-AGG-415
HEIS No.	B27C13	Lab ID: 1011025-08					
U-238	Uranium 238	1.61E0	ug/g dry	4.03E-2	5/05/11	1E05004	PNNL-AGG-415
HEIS No.	B29M71	Lab ID: 1011025-09					
U-238	Uranium 238	7.89E-1	ug/g dry	4.13E-2	5/05/11	1E05004	PNNL-AGG-415
HEIS No.	B28YW2	Lab ID: 1011025-10					
U-238	Uranium 238	8.41E-1	ug/g dry	4.52E-2	5/05/11	1E05004	PNNL-AGG-415
HEIS No.	B28CP2	Lab ID: 1011025-11					
U-238	Uranium 238	1.75E-1	ug/g dry	3.93E-2	5/05/11	1E05004	PNNL-AGG-415
HEIS No.	B29C20	Lab ID: 1011025-13					
U-238	Uranium 238	2.03E-1	ug/g dry	4.33E-2	5/05/11	1E05004	PNNL-AGG-415
HEIS No.	B29P71	Lab ID: 1011025-17					
U-238	Uranium 238	7.03E-1	ug/g dry	4.28E-2	5/05/11	1E05004	PNNL-AGG-415
HEIS No.	B29HN7	Lab ID: 1011025-21					
U-238	Uranium 238	3.85E-1	ug/g dry	4.05E-2	5/05/11	1E05004	PNNL-AGG-415
HEIS No.	B2B4H0	Lab ID: 1011025-29					
U-238	Uranium 238	2.17E-1	ug/g dry	4.04E-2	5/05/11	1E05004	PNNL-AGG-415
HEIS No.	B2C647	Lab ID: 1011025-33					
U-238	Uranium 238	4.37E-1	ug/g dry	4.20E-2	5/05/11	1E05004	PNNL-AGG-415
HEIS No.	B2H4X7	Lab ID: 1201003-01					
U-238	Uranium 238	2.87E-1	ug/g dry	4.00E-2	2/24/12	2B24004	PNNL-AGG-415

Radionuclides by ICP-MS/1:1 Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B28JK2	Lab ID: 1011025-01					
U-238	Uranium 238	1.68E-3	ug/g dry	7.98E-5	5/06/11	1E05003	PNNL-AGG-415
HEIS No.	B27C24	Lab ID: 1011025-02					
U-238	Uranium 238	4.30E-4	ug/g dry	8.00E-5	5/06/11	1E05003	PNNL-AGG-415
HEIS No.	B28KF6	Lab ID: 1011025-03					
U-238	Uranium 238	1.81E-3	ug/g dry	7.99E-5	5/06/11	1E05003	PNNL-AGG-415
HEIS No.	B28KW9	Lab ID: 1011025-04					
U-238	Uranium 238	9.00E-5	ug/g dry	8.00E-5	5/06/11	1E05003	PNNL-AGG-415
HEIS No.	B28N30	Lab ID: 1011025-05					
U-238	Uranium 238	<7.99E-5	ug/g dry	7.99E-5	5/06/11	1E05003	PNNL-AGG-415
HEIS No.	B273M1	Lab ID: 1011025-07					
U-238	Uranium 238	3.30E-4	ug/g dry	8.16E-5	5/06/11	1E05003	PNNL-AGG-415
HEIS No.	B27C13	Lab ID: 1011025-08					
U-238	Uranium 238	4.92E-3	ug/g dry	1.14E-4	5/06/11	1E05003	PNNL-AGG-415
HEIS No.	B29M71	Lab ID: 1011025-09					
U-238	Uranium 238	3.28E-3	ug/g dry	7.99E-5	5/06/11	1E05003	PNNL-AGG-415
HEIS No.	B28YW2	Lab ID: 1011025-10					
U-238	Uranium 238	<7.99E-5	ug/g dry	7.99E-5	5/06/11	1E05003	PNNL-AGG-415
HEIS No.	B28CP2	Lab ID: 1011025-11					
U-238	Uranium 238	2.31E-4	ug/g dry	8.00E-5	5/06/11	1E05003	PNNL-AGG-415
HEIS No.	B29C20	Lab ID: 1011025-13					
U-238	Uranium 238	4.02E-4	ug/g dry	7.98E-5	5/06/11	1E05003	PNNL-AGG-415
HEIS No.	B29P71	Lab ID: 1011025-17					
U-238	Uranium 238	1.26E-3	ug/g dry	8.00E-5	5/06/11	1E05003	PNNL-AGG-415
HEIS No.	B29HN7	Lab ID: 1011025-21					
U-238	Uranium 238	1.59E-3	ug/g dry	8.00E-5	5/06/11	1E05003	PNNL-AGG-415
HEIS No.	B2B4H0	Lab ID: 1011025-29					
U-238	Uranium 238	2.71E-4	ug/g dry	7.98E-5	5/06/11	1E05003	PNNL-AGG-415
HEIS No.	B2C647	Lab ID: 1011025-33					
U-238	Uranium 238	1.03E-3	ug/g dry	8.76E-5	5/06/11	1E05003	PNNL-AGG-415
HEIS No.	B2H4X7	Lab ID: 1201003-01					
U-238	Uranium 238	1.62E-4	ug/g dry	1.60E-4	2/24/12	2B24003	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/1:1 Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B28JK2	Lab ID: 1011025-01					
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	5/31/11	1E06003	PNNL-AGG-415
7440-38-2	Arsenic	<2.83E-3	ug/g dry	2.83E-3	6/13/11	1E06003	PNNL-AGG-415
14687-58-2	Selenium	<7.90E-3	ug/g dry	7.90E-3	5/31/11	1E06003	PNNL-AGG-415
14378-37-1	Silver	<3.12E-3	ug/g dry	3.12E-3	5/31/11	1E06003	PNNL-AGG-415
14336-64-2	Cadmium	<5.72E-4	ug/g dry	5.72E-4	5/31/11	1E06003	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	5/31/11	1E06003	PNNL-AGG-415
HEIS No.	B27C24	Lab ID: 1011025-02					
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	5/31/11	1E06003	PNNL-AGG-415
7440-38-2	Arsenic	8.12E-3	ug/g dry	2.83E-3	6/13/11	1E06003	PNNL-AGG-415
14687-58-2	Selenium	<7.91E-3	ug/g dry	7.91E-3	5/31/11	1E06003	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	5/31/11	1E06003	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	5/31/11	1E06003	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	5/31/11	1E06003	PNNL-AGG-415
HEIS No.	B28KF6	Lab ID: 1011025-03					
14092-98-9	Chromium	1.25E-2	ug/g dry	3.44E-3	5/31/11	1E06003	PNNL-AGG-415
7440-38-2	Arsenic	5.87E-3	ug/g dry	2.83E-3	6/13/11	1E06003	PNNL-AGG-415
14687-58-2	Selenium	<7.91E-3	ug/g dry	7.91E-3	5/31/11	1E06003	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	5/31/11	1E06003	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	5/31/11	1E06003	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	5/31/11	1E06003	PNNL-AGG-415
HEIS No.	B28KW9	Lab ID: 1011025-04					
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	5/31/11	1E06003	PNNL-AGG-415
7440-38-2	Arsenic	<2.84E-3	ug/g dry	2.84E-3	6/13/11	1E06003	PNNL-AGG-415
14687-58-2	Selenium	<7.92E-3	ug/g dry	7.92E-3	5/31/11	1E06003	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	5/31/11	1E06003	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	5/31/11	1E06003	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	5/31/11	1E06003	PNNL-AGG-415
HEIS No.	B28N30	Lab ID: 1011025-05					
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	5/31/11	1E06003	PNNL-AGG-415
7440-38-2	Arsenic	5.98E-3	ug/g dry	2.83E-3	6/13/11	1E06003	PNNL-AGG-415
14687-58-2	Selenium	<7.91E-3	ug/g dry	7.91E-3	5/31/11	1E06003	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	5/31/11	1E06003	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	5/31/11	1E06003	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	5/31/11	1E06003	PNNL-AGG-415
HEIS No.	B273M1	Lab ID: 1011025-07					
14092-98-9	Chromium	<3.50E-3	ug/g dry	3.50E-3	5/31/11	1E06003	PNNL-AGG-415
7440-38-2	Arsenic	<2.88E-3	ug/g dry	2.88E-3	6/13/11	1E06003	PNNL-AGG-415
14687-58-2	Selenium	<8.05E-3	ug/g dry	8.05E-3	5/31/11	1E06003	PNNL-AGG-415
14378-37-1	Silver	<3.18E-3	ug/g dry	3.18E-3	5/31/11	1E06003	PNNL-AGG-415
14336-64-2	Cadmium	<5.83E-4	ug/g dry	5.83E-4	5/31/11	1E06003	PNNL-AGG-415
13966-28-4	Lead	<1.18E-3	ug/g dry	1.18E-3	5/31/11	1E06003	PNNL-AGG-415
HEIS No.	B27C13	Lab ID: 1011025-08					
14092-98-9	Chromium	<4.89E-3	ug/g dry	4.89E-3	5/31/11	1E06003	PNNL-AGG-415
7440-38-2	Arsenic	7.65E-3	ug/g dry	4.03E-3	6/13/11	1E06003	PNNL-AGG-415
14687-58-2	Selenium	<1.12E-2	ug/g dry	1.12E-2	5/31/11	1E06003	PNNL-AGG-415
14378-37-1	Silver	<4.44E-3	ug/g dry	4.44E-3	5/31/11	1E06003	PNNL-AGG-415
14336-64-2	Cadmium	<8.13E-4	ug/g dry	8.13E-4	5/31/11	1E06003	PNNL-AGG-415
13966-28-4	Lead	<1.65E-3	ug/g dry	1.65E-3	5/31/11	1E06003	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/1:1 Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B29M71	Lab ID: 1011025-09					
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	5/31/11	1E06003	PNNL-AGG-415
7440-38-2	Arsenic	6.69E-3	ug/g dry	2.83E-3	6/13/11	1E06003	PNNL-AGG-415
14687-58-2	Selenium	<7.91E-3	ug/g dry	7.91E-3	5/31/11	1E06003	PNNL-AGG-415
14378-37-1	Silver	<3.12E-3	ug/g dry	3.12E-3	5/31/11	1E06003	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	5/31/11	1E06003	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	5/31/11	1E06003	PNNL-AGG-415
HEIS No.	B28YW2	Lab ID: 1011025-10					
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	5/31/11	1E06003	PNNL-AGG-415
7440-38-2	Arsenic	1.18E-2	ug/g dry	2.83E-3	6/13/11	1E06003	PNNL-AGG-415
14687-58-2	Selenium	<7.91E-3	ug/g dry	7.91E-3	5/31/11	1E06003	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	5/31/11	1E06003	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	5/31/11	1E06003	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	5/31/11	1E06003	PNNL-AGG-415
HEIS No.	B28CP2	Lab ID: 1011025-11					
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	5/31/11	1E06003	PNNL-AGG-415
7440-38-2	Arsenic	<2.84E-3	ug/g dry	2.84E-3	6/13/11	1E06003	PNNL-AGG-415
14687-58-2	Selenium	<7.92E-3	ug/g dry	7.92E-3	5/31/11	1E06003	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	5/31/11	1E06003	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	5/31/11	1E06003	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	5/31/11	1E06003	PNNL-AGG-415
HEIS No.	B29C20	Lab ID: 1011025-13					
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	5/31/11	1E06003	PNNL-AGG-415
7440-38-2	Arsenic	<2.83E-3	ug/g dry	2.83E-3	6/13/11	1E06003	PNNL-AGG-415
14687-58-2	Selenium	<7.90E-3	ug/g dry	7.90E-3	5/31/11	1E06003	PNNL-AGG-415
14378-37-1	Silver	<3.12E-3	ug/g dry	3.12E-3	5/31/11	1E06003	PNNL-AGG-415
14336-64-2	Cadmium	<5.72E-4	ug/g dry	5.72E-4	5/31/11	1E06003	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	5/31/11	1E06003	PNNL-AGG-415
HEIS No.	B29P71	Lab ID: 1011025-17					
14092-98-9	Chromium	3.73E-2	ug/g dry	3.45E-3	5/31/11	1E06003	PNNL-AGG-415
7440-38-2	Arsenic	8.84E-3	ug/g dry	2.84E-3	6/13/11	1E06003	PNNL-AGG-415
14687-58-2	Selenium	<7.92E-3	ug/g dry	7.92E-3	5/31/11	1E06003	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	5/31/11	1E06003	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	5/31/11	1E06003	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	5/31/11	1E06003	PNNL-AGG-415
HEIS No.	B29HN7	Lab ID: 1011025-21					
14092-98-9	Chromium	5.44E-3	ug/g dry	3.44E-3	5/31/11	1E06003	PNNL-AGG-415
7440-38-2	Arsenic	<2.83E-3	ug/g dry	2.83E-3	6/13/11	1E06003	PNNL-AGG-415
14687-58-2	Selenium	<7.91E-3	ug/g dry	7.91E-3	5/31/11	1E06003	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	5/31/11	1E06003	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	5/31/11	1E06003	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	5/31/11	1E06003	PNNL-AGG-415
HEIS No.	B2B4H0	Lab ID: 1011025-29					
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	5/31/11	1E06003	PNNL-AGG-415
7440-38-2	Arsenic	<2.83E-3	ug/g dry	2.83E-3	6/13/11	1E06003	PNNL-AGG-415
14687-58-2	Selenium	<7.90E-3	ug/g dry	7.90E-3	5/31/11	1E06003	PNNL-AGG-415
14378-37-1	Silver	<3.12E-3	ug/g dry	3.12E-3	5/31/11	1E06003	PNNL-AGG-415
14336-64-2	Cadmium	<5.72E-4	ug/g dry	5.72E-4	5/31/11	1E06003	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	5/31/11	1E06003	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/1:1 Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B2C647	Lab ID:		1011025-33			
14092-98-9	Chromium	<3.77E-3	ug/g dry	3.77E-3	5/31/11	1E06003	PNNL-AGG-415
7440-38-2	Arsenic	5.75E-3	ug/g dry	3.11E-3	6/13/11	1E06003	PNNL-AGG-415
14687-58-2	Selenium	<8.67E-3	ug/g dry	8.67E-3	5/31/11	1E06003	PNNL-AGG-415
14378-37-1	Silver	<3.42E-3	ug/g dry	3.42E-3	5/31/11	1E06003	PNNL-AGG-415
14336-64-2	Cadmium	<6.27E-4	ug/g dry	6.27E-4	5/31/11	1E06003	PNNL-AGG-415
13966-28-4	Lead	<1.27E-3	ug/g dry	1.27E-3	5/31/11	1E06003	PNNL-AGG-415
HEIS No.	B2H4X7	Lab ID:		1201003-01			
14092-98-9	Chromium	<6.88E-3	ug/g dry	6.88E-3	3/06/12	2C06003	PNNL-AGG-415
7440-38-2	Arsenic	<5.67E-3	ug/g dry	5.67E-3	3/06/12	2C06003	PNNL-AGG-415
14687-58-2	Selenium	<1.58E-2	ug/g dry	1.58E-2	3/06/12	2C06003	PNNL-AGG-415
14378-37-1	Silver	<6.25E-3	ug/g dry	6.25E-3	3/06/12	2C06003	PNNL-AGG-415
14336-64-2	Cadmium	<1.15E-3	ug/g dry	1.15E-3	3/06/12	2C06003	PNNL-AGG-415
13966-28-4	Lead	<2.32E-3	ug/g dry	2.32E-3	3/06/12	2C06003	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B28JK2	Lab ID: 1011025-01					
14092-98-9	Chromium	1.64E1	ug/g dry	6.48E-1	5/31/11	1E06004	PNNL-AGG-415
7440-38-2	Arsenic	1.68E0	ug/g dry	3.76E-1	6/15/11	1E06004	PNNL-AGG-415
14687-58-2	Selenium	<7.27E-1	ug/g dry	7.27E-1	6/14/11	1E06004	PNNL-AGG-415
14378-37-1	Silver	<1.18E-3	ug/g dry	1.18E-3	5/31/11	1E06004	PNNL-AGG-415
14336-64-2	Cadmium	<3.10E-3	ug/g dry	3.10E-3	5/31/11	1E06004	PNNL-AGG-415
13966-28-4	Lead	4.19E0	ug/g dry	1.77E-1	5/31/11	1E06004	PNNL-AGG-415
HEIS No.	B27C24	Lab ID: 1011025-02					
14092-98-9	Chromium	1.17E1	ug/g dry	6.46E-1	5/31/11	1E06004	PNNL-AGG-415
7440-38-2	Arsenic	1.50E0	ug/g dry	3.75E-1	6/15/11	1E06004	PNNL-AGG-415
14687-58-2	Selenium	<7.25E-1	ug/g dry	7.25E-1	6/14/11	1E06004	PNNL-AGG-415
14378-37-1	Silver	<1.17E-3	ug/g dry	1.17E-3	5/31/11	1E06004	PNNL-AGG-415
14336-64-2	Cadmium	<3.09E-3	ug/g dry	3.09E-3	5/31/11	1E06004	PNNL-AGG-415
13966-28-4	Lead	4.23E0	ug/g dry	1.76E-1	5/31/11	1E06004	PNNL-AGG-415
HEIS No.	B28KF6	Lab ID: 1011025-03					
14092-98-9	Chromium	1.17E1	ug/g dry	6.28E-1	5/31/11	1E06004	PNNL-AGG-415
7440-38-2	Arsenic	1.14E0	ug/g dry	3.64E-1	6/15/11	1E06004	PNNL-AGG-415
14687-58-2	Selenium	<7.05E-1	ug/g dry	7.05E-1	6/14/11	1E06004	PNNL-AGG-415
14378-37-1	Silver	<1.14E-3	ug/g dry	1.14E-3	5/31/11	1E06004	PNNL-AGG-415
14336-64-2	Cadmium	<3.01E-3	ug/g dry	3.01E-3	5/31/11	1E06004	PNNL-AGG-415
13966-28-4	Lead	3.74E0	ug/g dry	1.71E-1	5/31/11	1E06004	PNNL-AGG-415
HEIS No.	B28KW9	Lab ID: 1011025-04					
14092-98-9	Chromium	1.18E1	ug/g dry	6.02E-1	5/31/11	1E06004	PNNL-AGG-415
7440-38-2	Arsenic	1.06E0	ug/g dry	3.50E-1	6/15/11	1E06004	PNNL-AGG-415
14687-58-2	Selenium	<6.76E-1	ug/g dry	6.76E-1	6/14/11	1E06004	PNNL-AGG-415
14378-37-1	Silver	<1.09E-3	ug/g dry	1.09E-3	5/31/11	1E06004	PNNL-AGG-415
14336-64-2	Cadmium	<2.89E-3	ug/g dry	2.89E-3	5/31/11	1E06004	PNNL-AGG-415
13966-28-4	Lead	4.22E0	ug/g dry	1.64E-1	5/31/11	1E06004	PNNL-AGG-415
HEIS No.	B28N30	Lab ID: 1011025-05					
14092-98-9	Chromium	2.10E1	ug/g dry	6.60E-1	5/31/11	1E06004	PNNL-AGG-415
7440-38-2	Arsenic	5.78E-1	ug/g dry	3.83E-1	6/15/11	1E06004	PNNL-AGG-415
14687-58-2	Selenium	<7.41E-1	ug/g dry	7.41E-1	6/14/11	1E06004	PNNL-AGG-415
14378-37-1	Silver	<1.20E-3	ug/g dry	1.20E-3	5/31/11	1E06004	PNNL-AGG-415
14336-64-2	Cadmium	<3.16E-3	ug/g dry	3.16E-3	5/31/11	1E06004	PNNL-AGG-415
13966-28-4	Lead	5.60E0	ug/g dry	1.80E-1	5/31/11	1E06004	PNNL-AGG-415
HEIS No.	B273M1	Lab ID: 1011025-07					
14092-98-9	Chromium	5.44E0	ug/g dry	5.59E-1	5/31/11	1E06004	PNNL-AGG-415
7440-38-2	Arsenic	5.34E-1	ug/g dry	3.25E-1	6/15/11	1E06004	PNNL-AGG-415
14687-58-2	Selenium	<6.27E-1	ug/g dry	6.27E-1	6/14/11	1E06004	PNNL-AGG-415
14378-37-1	Silver	<1.02E-3	ug/g dry	1.02E-3	5/31/11	1E06004	PNNL-AGG-415
14336-64-2	Cadmium	<2.68E-3	ug/g dry	2.68E-3	5/31/11	1E06004	PNNL-AGG-415
13966-28-4	Lead	1.33E0	ug/g dry	1.52E-1	5/31/11	1E06004	PNNL-AGG-415
HEIS No.	B27C13	Lab ID: 1011025-08					
14092-98-9	Chromium	1.35E1	ug/g dry	5.69E-1	5/31/11	1E06004	PNNL-AGG-415
7440-38-2	Arsenic	1.49E1	ug/g dry	3.30E-1	6/15/11	1E06004	PNNL-AGG-415
14687-58-2	Selenium	<6.38E-1	ug/g dry	6.38E-1	6/14/11	1E06004	PNNL-AGG-415
14378-37-1	Silver	<1.03E-3	ug/g dry	1.03E-3	5/31/11	1E06004	PNNL-AGG-415
14336-64-2	Cadmium	<2.73E-3	ug/g dry	2.73E-3	5/31/11	1E06004	PNNL-AGG-415
13966-28-4	Lead	4.40E0	ug/g dry	1.55E-1	5/31/11	1E06004	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B29M71	Lab ID: 1011025-09					
14092-98-9	Chromium	8.77E0	ug/g dry	5.82E-1	5/31/11	1E06004	PNNL-AGG-415
7440-38-2	Arsenic	3.51E0	ug/g dry	3.38E-1	6/15/11	1E06004	PNNL-AGG-415
14687-58-2	Selenium	<4.90E-1	ug/g dry	4.90E-1	5/31/11	1E06004	PNNL-AGG-415
14378-37-1	Silver	<1.06E-3	ug/g dry	1.06E-3	5/31/11	1E06004	PNNL-AGG-415
14336-64-2	Cadmium	<2.79E-3	ug/g dry	2.79E-3	5/31/11	1E06004	PNNL-AGG-415
13966-28-4	Lead	2.32E0	ug/g dry	1.59E-1	5/31/11	1E06004	PNNL-AGG-415
HEIS No.	B28YW2	Lab ID: 1011025-10					
14092-98-9	Chromium	1.01E1	ug/g dry	6.37E-1	5/31/11	1E06004	PNNL-AGG-415
7440-38-2	Arsenic	1.13E0	ug/g dry	3.70E-1	6/15/11	1E06004	PNNL-AGG-415
14687-58-2	Selenium	<5.36E-1	ug/g dry	5.36E-1	5/31/11	1E06004	PNNL-AGG-415
14378-37-1	Silver	<1.16E-3	ug/g dry	1.16E-3	5/31/11	1E06004	PNNL-AGG-415
14336-64-2	Cadmium	<3.05E-3	ug/g dry	3.05E-3	5/31/11	1E06004	PNNL-AGG-415
13966-28-4	Lead	5.36E0	ug/g dry	1.74E-1	5/31/11	1E06004	PNNL-AGG-415
HEIS No.	B28CP2	Lab ID: 1011025-11					
14092-98-9	Chromium	2.10E1	ug/g dry	5.55E-1	5/31/11	1E06004	PNNL-AGG-415
7440-38-2	Arsenic	8.18E-1	ug/g dry	3.22E-1	6/15/11	1E06004	PNNL-AGG-415
14687-58-2	Selenium	<4.67E-1	ug/g dry	4.67E-1	5/31/11	1E06004	PNNL-AGG-415
14378-37-1	Silver	<1.01E-3	ug/g dry	1.01E-3	5/31/11	1E06004	PNNL-AGG-415
14336-64-2	Cadmium	<2.66E-3	ug/g dry	2.66E-3	5/31/11	1E06004	PNNL-AGG-415
13966-28-4	Lead	1.42E0	ug/g dry	1.51E-1	5/31/11	1E06004	PNNL-AGG-415
HEIS No.	B29C20	Lab ID: 1011025-13					
14092-98-9	Chromium	5.57E0	ug/g dry	6.11E-1	5/31/11	1E06004	PNNL-AGG-415
7440-38-2	Arsenic	9.68E-1	ug/g dry	3.55E-1	6/15/11	1E06004	PNNL-AGG-415
14687-58-2	Selenium	<5.14E-1	ug/g dry	5.14E-1	5/31/11	1E06004	PNNL-AGG-415
14378-37-1	Silver	<1.11E-3	ug/g dry	1.11E-3	5/31/11	1E06004	PNNL-AGG-415
14336-64-2	Cadmium	<2.93E-3	ug/g dry	2.93E-3	5/31/11	1E06004	PNNL-AGG-415
13966-28-4	Lead	1.38E0	ug/g dry	1.67E-1	5/31/11	1E06004	PNNL-AGG-415
HEIS No.	B29P71	Lab ID: 1011025-17					
14092-98-9	Chromium	1.74E1	ug/g dry	6.04E-1	5/31/11	1E06004	PNNL-AGG-415
7440-38-2	Arsenic	1.07E0	ug/g dry	3.51E-1	6/15/11	1E06004	PNNL-AGG-415
14687-58-2	Selenium	<5.09E-1	ug/g dry	5.09E-1	5/31/11	1E06004	PNNL-AGG-415
14378-37-1	Silver	<1.10E-3	ug/g dry	1.10E-3	5/31/11	1E06004	PNNL-AGG-415
14336-64-2	Cadmium	<2.90E-3	ug/g dry	2.90E-3	5/31/11	1E06004	PNNL-AGG-415
13966-28-4	Lead	4.77E0	ug/g dry	1.65E-1	5/31/11	1E06004	PNNL-AGG-415
HEIS No.	B29HN7	Lab ID: 1011025-21					
14092-98-9	Chromium	8.20E0	ug/g dry	5.71E-1	5/31/11	1E06004	PNNL-AGG-415
7440-38-2	Arsenic	7.11E-1	ug/g dry	3.31E-1	6/15/11	1E06004	PNNL-AGG-415
14687-58-2	Selenium	<4.80E-1	ug/g dry	4.80E-1	5/31/11	1E06004	PNNL-AGG-415
14378-37-1	Silver	<1.04E-3	ug/g dry	1.04E-3	5/31/11	1E06004	PNNL-AGG-415
14336-64-2	Cadmium	<2.74E-3	ug/g dry	2.74E-3	5/31/11	1E06004	PNNL-AGG-415
13966-28-4	Lead	1.99E0	ug/g dry	1.56E-1	5/31/11	1E06004	PNNL-AGG-415
HEIS No.	B2B4H0	Lab ID: 1011025-29					
14092-98-9	Chromium	5.75E0	ug/g dry	5.70E-1	5/31/11	1E06004	PNNL-AGG-415
7440-38-2	Arsenic	8.45E-1	ug/g dry	3.31E-1	6/15/11	1E06004	PNNL-AGG-415
14687-58-2	Selenium	<4.80E-1	ug/g dry	4.80E-1	5/31/11	1E06004	PNNL-AGG-415
14378-37-1	Silver	<1.04E-3	ug/g dry	1.04E-3	5/31/11	1E06004	PNNL-AGG-415
14336-64-2	Cadmium	<2.73E-3	ug/g dry	2.73E-3	5/31/11	1E06004	PNNL-AGG-415
13966-28-4	Lead	1.36E0	ug/g dry	1.55E-1	5/31/11	1E06004	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B2C647	Lab ID:		1011025-33			
14092-98-9	Chromium	1.15E1	ug/g dry	5.93E-1	5/31/11	1E06004	PNNL-AGG-415
7440-38-2	Arsenic	8.73E-1	ug/g dry	3.44E-1	6/15/11	1E06004	PNNL-AGG-415
14687-58-2	Selenium	<4.99E-1	ug/g dry	4.99E-1	5/31/11	1E06004	PNNL-AGG-415
14378-37-1	Silver	<1.08E-3	ug/g dry	1.08E-3	5/31/11	1E06004	PNNL-AGG-415
14336-64-2	Cadmium	<2.84E-3	ug/g dry	2.84E-3	5/31/11	1E06004	PNNL-AGG-415
13966-28-4	Lead	2.87E0	ug/g dry	1.62E-1	5/31/11	1E06004	PNNL-AGG-415
HEIS No.	B2H4X7	Lab ID:		1201003-01			
14092-98-9	Chromium	1.01E1	ug/g dry	7.52E-1	3/06/12	2C06004	PNNL-AGG-415
7440-38-2	Arsenic	1.02E0	ug/g dry	3.27E-1	3/13/12	2C06004	PNNL-AGG-415
14687-58-2	Selenium	<6.33E-1	ug/g dry	6.33E-1	3/06/12	2C06004	PNNL-AGG-415
14378-37-1	Silver	5.46E-2	ug/g dry	2.05E-2	3/30/12	2C06004	PNNL-AGG-415
14336-64-2	Cadmium	<5.40E-2	ug/g dry	5.40E-2	3/06/12	2C06004	PNNL-AGG-415
13966-28-4	Lead	1.77E0	ug/g dry	2.05E-1	3/06/12	2C06004	PNNL-AGG-415

Equilibrium Kd 1:1 Calculations

1011025-01		B28JK2	
Analyte	Kd (L/g)		
Arsenic	ND		
Barium	ND		
Cadmium	ND		
Chromium	ND		
Chromium, Hexavalent	ND		
Lead	ND		
Selenium	ND		
Silver	ND		
Uranium 238	0.334714		

1011025-02		B27C24	
Analyte	Kd (L/g)		
Arsenic	0.183729		
Barium	ND		
Cadmium	ND		
Chromium	ND		
Chromium, Hexavalent	ND		
Lead	ND		
Selenium	ND		
Silver	ND		
Uranium 238	0.733884		

1011025-03		B28KF6	
Analyte	Kd (L/g)		
Arsenic	0.193208		
Barium	ND		
Cadmium	ND		
Chromium	0.935		
Chromium, Hexavalent	ND		
Lead	ND		
Selenium	ND		
Silver	ND		
Uranium 238	0.236569		

1011025-04		B28KW9	
Analyte	Kd (L/g)		
Arsenic	ND		
Barium	ND		
Cadmium	ND		
Chromium	ND		
Chromium, Hexavalent	ND		
Lead	ND		
Selenium	ND		
Silver	ND		
Uranium 238	7.965667		

1011025-05		B28N30	
Analyte	Kd (L/g)		
Arsenic	0.095656		
Barium	ND		
Cadmium	ND		
Chromium	ND		
Chromium, Hexavalent	ND		
Lead	ND		
Selenium	ND		
Silver	ND		
Uranium 238	ND		

1011025-07		B273M1	
Analyte	Kd (L/g)		
Arsenic	ND		
Barium	ND		
Cadmium	ND		
Chromium	ND		
Chromium, Hexavalent	ND		
Lead	ND		
Selenium	ND		
Silver	ND		
Uranium 238	0.556576		

1011025-08		B27C13	
Analyte	Kd (L/g)		
Arsenic	1.946712		
Barium	ND		
Cadmium	ND		
Chromium	ND		
Chromium, Hexavalent	ND		
Lead	ND		
Selenium	ND		
Silver	ND		
Uranium 238	0.326236		

1011025-09		B29M71	
Analyte	Kd (L/g)		
Arsenic	0.523664		
Barium	ND		
Cadmium	ND		
Chromium	ND		
Chromium, Hexavalent	ND		
Lead	ND		
Selenium	ND		
Silver	ND		
Uranium 238	0.239549		

1011025-10		B28YW2	
Analyte	Kd (L/g)		
Arsenic	0.094763		
Barium	ND		
Cadmium	ND		
Chromium	ND		
Chromium, Hexavalent	ND		
Lead	ND		
Selenium	ND		
Silver	ND		
Uranium 238	ND		

1011025-11		B28CP2	
Analyte	Kd (L/g)		
Arsenic	ND		
Barium	ND		
Cadmium	ND		
Chromium	ND		
Chromium, Hexavalent	ND		
Lead	ND		
Selenium	ND		
Silver	ND		
Uranium 238	0.756576		

1011025-13		B29C20	
Analyte	Kd (L/g)		
Arsenic	ND		
Barium	ND		
Cadmium	ND		
Chromium	ND		
Chromium, Hexavalent	ND		
Lead	ND		
Selenium	ND		
Silver	ND		
Uranium 238	0.503975		

1011025-17		B29P71	
Analyte	Kd (L/g)		
Arsenic	0.120041		
Barium	ND		
Cadmium	ND		
Chromium	0.465488		
Chromium, Hexavalent	ND		
Lead	ND		
Selenium	ND		
Silver	ND		
Uranium 238	0.556937		

1011025-21		B29HN7	
Analyte	Kd (L/g)		
Arsenic	ND		
Barium	ND		
Cadmium	ND		
Chromium	1.506353		
Chromium, Hexavalent	ND		
Lead	ND		
Selenium	ND		
Silver	ND		
Uranium 238	0.241138		

1011025-29		B2B4H0	
Analyte	Kd (L/g)		
Arsenic	ND		
Barium	ND		
Cadmium	ND		
Chromium	ND		
Chromium, Hexavalent	ND		
Lead	ND		
Selenium	ND		
Silver	ND		
Uranium 238	0.799738		

1011025-33		B2C647	
Analyte	Kd (L/g)		
Arsenic	0.150826		
Barium	ND		
Cadmium	ND		
Chromium	ND		
Chromium, Hexavalent	ND		
Lead	ND		
Selenium	ND		
Silver	ND		
Uranium 238	0.423272		

Equilibrium Kd 1:1 Calculations

1201003-01

B2H4X7

Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium	ND
Chromium, Hexavalent	ND
Lead	ND
Selenium	ND
Silver	ND
Uranium 238	0.235053

Wet Chemistry - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 2B14001 - Moisture Prep

Duplicate (2B14001-DUP1)	Source: 1201003-01		Prepared: 02/14/12		Analyzed: 02/20/12				
Moisture Content	1.23E1	N/A	% by Weight	1.33E1			7.42	35	

Hexavalent Chromium/Soil - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1E23001 - Hexavalent Chromium Digest										
Blank (1E23001-BLK1) Prepared & Analyzed: 05/20/11										
Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g wet							
LCS (1E23001-BS1) Prepared & Analyzed: 05/20/11										
Chromium, Hexavalent	4.10E-1	5.00E-2	ug/g wet	5.01E-1		81.9	80-120			
Duplicate (1E23001-DUP1) Source: 1011025-04 Prepared & Analyzed: 05/20/11										
Chromium, Hexavalent	<6.09E-1	6.09E-1	ug/g dry		ND				20	
Matrix Spike (1E23001-MS1) Source: 1011025-04 Prepared & Analyzed: 05/20/11										
Chromium, Hexavalent	2.44E-1	6.14E-1	ug/g dry	5.00E-1	3.00E-3	48.2	75-125			
Batch 2B22010 - Hexavalent Chromium Digest										
Blank (2B22010-BLK1) Prepared & Analyzed: 02/22/12										
Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g wet							
LCS (2B22010-BS1) Prepared & Analyzed: 02/22/12										
Chromium, Hexavalent	4.55E-1	5.00E-2	ug/g wet	5.00E-1		91.0	80-120			
Duplicate (2B22010-DUP1) Source: 1201003-01 Prepared & Analyzed: 02/22/12										
Chromium, Hexavalent	<5.66E-1	5.66E-1	ug/g dry		ND				20	
Matrix Spike (2B22010-MS1) Source: 1201003-01 Prepared & Analyzed: 02/22/12										
Chromium, Hexavalent	2.51E-1	5.66E-1	ug/g dry	5.00E-1	2.00E-3	49.8	75-125			

Hexavalent Chromium/1:1 Water Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1E05001 - 1:1 Water Extract (Cr6)										
Blank (1E05001-BLK1) Prepared & Analyzed: 05/05/11										
Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g wet							
LCS (1E05001-BS1) Prepared & Analyzed: 05/05/11										
Chromium, Hexavalent	5.05E-1	5.00E-2	ug/g wet	5.01E-1		101	70-130			
Duplicate (1E05001-DUP1) Source: 1011025-04 Prepared & Analyzed: 05/05/11										
Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g dry			ND			20	
Post Spike (1E05001-PS1) Source: 1011025-04 Prepared & Analyzed: 05/05/11										
Chromium, Hexavalent	5.25E-1	N/A	ug/mL	5.00E-1	2.00E-2	101	75-125			
Batch 2B22009 - 1:1 Water Extract (Cr6)										
Blank (2B22009-BLK1) Prepared & Analyzed: 02/22/12										
Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g wet							
LCS (2B22009-BS1) Prepared & Analyzed: 02/22/12										
Chromium, Hexavalent	4.95E-1	5.00E-2	ug/g wet	5.00E-1		99.0	70-130			
Duplicate (2B22009-DUP1) Source: 1201003-01 Prepared & Analyzed: 02/22/12										
Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g dry			ND			35	
Post Spike (2B22009-PS1) Source: 1201003-01 Prepared & Analyzed: 02/22/12										
Chromium, Hexavalent	5.34E-1	N/A	ug/mL	5.00E-1	ND	108	75-125			

Total Metals by PNNL-AGG-ICP-AES/1:1 Water Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1E09001 - 1:1 Water Extract (ICP/ICPMS)										
Blank (1E09001-BLK1)				Prepared: 05/04/11 Analyzed: 05/09/11						
Barium	<1.24E-1	1.24E-1	ug/g wet							
LCS (1E09001-BS1)				Prepared: 05/04/11 Analyzed: 05/09/11						
Barium	4.94E0	1.24E-1	ug/g wet	4.99E0		98.9	80-120			
Duplicate (1E09001-DUP1)				Source: 1011025-04		Prepared: 05/04/11 Analyzed: 05/09/11				
Barium	<1.24E-1	1.24E-1	ug/g dry		ND					35
Post Spike (1E09001-PS1)				Source: 1011025-04		Prepared & Analyzed: 05/09/11				
Barium	2.51E2	N/A	ug/L	2.50E2	3.20E0	99.1	75-125			
Batch 2C06001 - 1:1 Water Extract (ICP/ICPMS)										
Blank (2C06001-BLK1)				Prepared: 02/20/12 Analyzed: 03/07/12						
Barium	<1.24E-1	1.24E-1	ug/g wet							
LCS (2C06001-BS1)				Prepared: 02/20/12 Analyzed: 03/07/12						
Barium	5.02E0	1.24E-1	ug/g wet	5.27E0		95.3	80-120			
Duplicate (2C06001-DUP1)				Source: 1201003-01		Prepared: 02/20/12 Analyzed: 03/07/12				
Barium	<1.24E-1	1.24E-1	ug/g dry		ND					35
Post Spike (2C06001-PS1)				Source: 1201003-01		Prepared: 03/06/12 Analyzed: 03/07/12				
Barium	2.63E2	N/A	ug/L	2.50E2	6.02E0	103	75-125			

Total Metals by PNNL-AGG-ICP-AES/Acid Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1E09002 - ASTM D 5198 (ICP/ICPMS)										
Blank (1E09002-BLK1)					Prepared: 05/04/11		Analyzed: 05/09/11			
Barium	<4.12E-1	4.12E-1	ug/g wet							
LCS (1E09002-BS1)					Prepared: 05/04/11		Analyzed: 05/09/11			
Barium	5.68E0	4.12E-2	ug/g wet	5.80E0		97.8	80-120			
Duplicate (1E09002-DUP1)					Source: 1011025-04		Prepared: 05/04/11		Analyzed: 05/09/11	
Barium	4.73E1	1.75E0	ug/g dry		4.95E1			4.53	35	
Post Spike (1E09002-PS1)					Source: 1011025-04		Prepared & Analyzed: 05/09/11			
Barium	4.88E2	N/A	ug/L	2.50E2	2.32E2	103	75-125			
Batch 2C06002 - ASTM D 5198 (ICP/ICPMS)										
Blank (2C06002-BLK1)					Prepared: 02/20/12		Analyzed: 03/07/12			
Barium	<4.12E-2	4.12E-2	ug/g wet							
LCS (2C06002-BS1)					Prepared: 02/20/12		Analyzed: 03/07/12			
Barium	5.82E0	4.12E-2	ug/g wet	5.82E0		100	80-120			
Duplicate (2C06002-DUP1)					Source: 1201003-01		Prepared: 02/20/12		Analyzed: 03/07/12	
Barium	3.24E1	1.60E0	ug/g dry		3.03E1			6.49	35	
Post Spike (2C06002-PS1)					Source: 1201003-01		Prepared: 03/06/12		Analyzed: 03/07/12	
Barium	3.89E2	N/A	ug/L	2.50E2	1.52E2	94.7	75-125			

Radionuclides by ICP-MS/Acid Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1E05004 - ASTM D 5198 (ICP/ICPMS)										
Blank (1E05004-BLK1) Prepared & Analyzed: 05/05/11										
Uranium 238	<1.00E-2	1.00E-2	ug/g wet							
Duplicate (1E05004-DUP1) Source: 1011025-04 Prepared & Analyzed: 05/05/11										
Uranium 238	6.99E-1	4.24E-2	ug/g dry		7.17E-1			2.45	35	
Post Spike (1E05004-PS1) Source: 1011025-33 Prepared & Analyzed: 05/05/11										
Uranium 238	1.98E0	N/A	ug/L	1.00E0	1.04E0	93.8	75-125			
Batch 2B24004 - ASTM D 5198 (ICP/ICPMS)										
Blank (2B24004-BLK1) Prepared & Analyzed: 02/24/12										
Uranium 238	<1.00E-2	1.00E-2	ug/g wet							
LCS (2B24004-BS1) Prepared & Analyzed: 02/24/12										
Uranium 238	<5.00E-2	5.00E-2	ug/g wet				80-120			
Duplicate (2B24004-DUP1) Source: 1201003-01 Prepared & Analyzed: 02/24/12										
Uranium 238	2.17E-1	3.89E-2	ug/g dry		2.87E-1			27.8	35	
Post Spike (2B24004-PS1) Source: 1201003-01 Prepared & Analyzed: 02/24/12										
Uranium 238	1.71E0	N/A	ug/L	1.00E0	7.19E-1	99.3	75-125			

Radionuclides by ICP-MS/1:1 Water Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1E05003 - 1:1 Water Extract (ICP/ICPMS)										
Blank (1E05003-BLK1) Prepared: 05/05/11 Analyzed: 05/06/11										
Uranium 238	<8.00E-5	8.00E-5	ug/g wet							
Duplicate (1E05003-DUP1) Source: 1011025-04 Prepared: 05/05/11 Analyzed: 05/06/11										
Uranium 238	1.33E-4	8.00E-5	ug/g dry		9.00E-5			38.9	35	
Post Spike (1E05003-PS1) Source: 1011025-33 Prepared: 05/05/11 Analyzed: 05/06/11										
Uranium 238	1.21E0	N/A	ug/L	1.00E0	1.89E-1	102	75-125			
Batch 2B24003 - 1:1 Water Extract (ICP/ICPMS)										
Blank (2B24003-BLK1) Prepared & Analyzed: 02/24/12										
Uranium 238	<1.60E-4	1.60E-4	ug/g wet							
LCS (2B24003-BS1) Prepared & Analyzed: 02/24/12										
Uranium 238	<4.80E-3	4.80E-3	ug/g wet				80-120			
Duplicate (2B24003-DUP1) Source: 1201003-01 Prepared & Analyzed: 02/24/12										
Uranium 238	1.85E-4	1.60E-4	ug/g dry		1.62E-4			13.1	35	
Post Spike (2B24003-PS1) Source: 1201003-01 Prepared & Analyzed: 02/24/12										
Uranium 238	1.04E0	N/A	ug/L	1.00E0	1.62E-2	102	75-125			

RCRA Metals By PNNL-AGG-415/1:1 Water Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1E06003 - 1:1 Water Extract (ICP/ICPMS)

Blank (1E06003-BLK1)

Prepared: 05/06/11 Analyzed: 05/31/11

Chromium	<3.44E-3	3.44E-3	ug/g wet							
Arsenic	<2.84E-3	2.84E-3	"							
Selenium	<7.92E-3	7.92E-3	"							
Silver	<3.13E-3	3.13E-3	"							
Cadmium	<5.73E-4	5.73E-4	"							
Lead	<1.16E-3	1.16E-3	"							

LCS (1E06003-BS1)

Prepared: 05/06/11 Analyzed: 05/31/11

Chromium	4.97E0	3.44E-1	ug/g wet	4.99E0		99.6	80-120			
Arsenic	4.79E0	2.84E-1	"	4.99E0		95.9	80-120			
Selenium	4.98E0	7.92E-1	"	4.99E0		99.7	80-120			
Silver	4.66E0	3.13E-1	"	4.99E0		93.3	80-120			
Cadmium	4.63E0	5.73E-2	"	4.99E0		92.7	80-120			
Lead	4.71E0	1.16E-1	"	4.99E0		94.3	80-120			

Duplicate (1E06003-DUP1)

Source: 1011025-04

Prepared: 05/06/11 Analyzed: 05/31/11

Chromium	<3.44E-3	3.44E-3	ug/g dry		ND					35
Arsenic	<2.83E-3	2.83E-3	"		ND					35
Selenium	<7.91E-3	7.91E-3	"		ND					35
Silver	<3.13E-3	3.13E-3	"		ND					35
Cadmium	<5.73E-4	5.73E-4	"		ND					35
Lead	<1.16E-3	1.16E-3	"		ND					35

Post Spike (1E06003-PS1)

Source: 1011025-33

Prepared: 05/06/11 Analyzed: 05/31/11

Chromium	5.14E0	N/A	ug/L	5.00E0	1.40E-1	99.9	75-125			
Arsenic	6.36E0	N/A	"	5.00E0	1.05E0	106	75-125			
Selenium	5.30E0	N/A	"	5.00E0	2.82E-1	100	75-125			
Silver	4.77E0	N/A	"	5.00E0	1.18E-3	95.4	75-125			
Cadmium	5.11E0	N/A	"	5.00E0	1.18E-2	102	75-125			
Lead	5.01E0	N/A	"	5.00E0	1.62E-2	99.8	75-125			

RCRA Metals By PNNL-AGG-415/1:1 Water Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2C06003 - 1:1 Water Extract (ICP/ICPMS)

Blank (2C06003-BLK1)

Prepared & Analyzed: 03/06/12

Chromium	<6.89E-3	6.89E-3	ug/g wet							
Arsenic	<5.67E-3	5.67E-3	"							
Selenium	<1.58E-2	1.58E-2	"							
Silver	<6.26E-3	6.26E-3	"							
Cadmium	<1.15E-3	1.15E-3	"							
Lead	<2.32E-3	2.32E-3	"							

LCS (2C06003-BS1)

Prepared & Analyzed: 03/06/12

Chromium	5.19E0	3.44E-1	ug/g wet	5.27E0		98.6	80-120			
Arsenic	5.16E0	2.84E-1	"	5.27E0		98.0	80-120			
Selenium	5.11E0	7.92E-1	"	5.27E0		97.0	80-120			
Silver	5.00E0	3.13E-1	"	5.27E0		95.0	80-120			
Cadmium	5.01E0	5.73E-2	"	5.27E0		95.2	80-120			
Lead	5.05E0	1.16E-1	"	5.27E0		95.9	80-120			

Duplicate (2C06003-DUP1)

Source: 1201003-01

Prepared & Analyzed: 03/06/12

Chromium	<6.88E-3	6.88E-3	ug/g dry		ND					35
Arsenic	<5.67E-3	5.67E-3	"		ND					35
Selenium	<1.58E-2	1.58E-2	"		ND					35
Silver	<6.25E-3	6.25E-3	"		ND					35
Cadmium	<1.15E-3	1.15E-3	"		ND					35
Lead	<2.32E-3	2.32E-3	"		ND					35

Post Spike (2C06003-PS1)

Source: 1201003-01

Prepared & Analyzed: 03/06/12

Chromium	5.41E0	N/A	ug/L	5.00E0	1.97E-1	104	75-125			
Arsenic	5.43E0	N/A	"	5.00E0	3.59E-1	101	75-125			
Selenium	5.03E0	N/A	"	5.00E0	ND	103	75-125			
Silver	5.01E0	N/A	"	5.00E0	1.48E-2	99.9	75-125			
Cadmium	4.98E0	N/A	"	5.00E0	3.79E-3	99.6	75-125			
Lead	5.03E0	N/A	"	5.00E0	ND	102	75-125			

RCRA Metals By PNNL-AGG-415/Acid Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1E06004 - ASTM D 5198 (ICP/ICPMS)

Blank (1E06004-BLK1)

Prepared: 05/06/11 Analyzed: 05/31/11

Chromium	<1.41E-1	1.41E-1	ug/g wet							
Arsenic	<8.20E-2	8.20E-2	"							
Selenium	<1.19E-1	1.19E-1	"							
Silver	<3.85E-3	3.85E-3	"							
Cadmium	<1.02E-2	1.02E-2	"							
Lead	<3.85E-2	3.85E-2	"							

LCS (1E06004-BS1)

Prepared: 05/06/11 Analyzed: 05/31/11

Chromium	6.04E0	9.42E-1	ug/g wet	5.80E0		104	80-120			
Arsenic	5.60E0	4.10E-1	"	5.80E0		96.4	80-120			
Selenium	5.43E0	7.93E-1	"	5.80E0		93.5	80-120			
Silver	5.66E0	2.56E-2	"	5.80E0		97.5	80-120			
Cadmium	5.72E0	6.77E-2	"	5.80E0		98.6	80-120			
Lead	5.81E0	2.57E-1	"	5.80E0		100	80-120			

Duplicate (1E06004-DUP1)

Source: 1011025-04

Prepared: 05/06/11 Analyzed: 05/31/11

Chromium	1.13E1	5.98E-1	ug/g dry		1.18E1			4.60	35	
Arsenic	9.82E-1	3.47E-1	"		1.06E0			8.02	35	
Selenium	<6.71E-1	6.71E-1	"		ND				35	
Silver	6.13E-2	1.63E-2	"		ND				35	
Cadmium	6.10E-2	4.30E-2	"		ND				35	
Lead	3.93E0	1.63E-1	"		4.22E0			7.05	35	

Post Spike (1E06004-PS1)

Source: 1011025-33

Prepared: 05/06/11 Analyzed: 05/31/11

Chromium	4.15E1	N/A	ug/L	5.00E0	3.65E1	101	75-125			
Arsenic	6.88E0	N/A	"	3.75E0	2.08E0	128	75-125			
Selenium	5.44E0	N/A	"	5.00E0	7.72E-2	107	75-125			
Silver	4.66E0	N/A	"	5.00E0	1.18E-3	93.1	75-125			
Cadmium	4.98E0	N/A	"	5.00E0	1.18E-2	99.4	75-125			
Lead	1.36E1	N/A	"	5.00E0	9.13E0	89.4	75-125			

RCRA Metals By PNNL-AGG-415/Acid Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2C06004 - ASTM D 5198 (ICP/ICPMS)

Blank (2C06004-BLK1)

Prepared & Analyzed: 03/06/12

Chromium	<1.88E-1	1.88E-1	ug/g wet							
Arsenic	<8.20E-2	8.20E-2	"							
Selenium	<1.59E-1	1.59E-1	"							
Silver	<5.13E-3	5.13E-3	"							
Cadmium	<1.35E-2	1.35E-2	"							
Lead	<5.13E-2	5.13E-2	"							

LCS (2C06004-BS1)

Prepared & Analyzed: 03/06/12

Chromium	5.86E0	9.42E-1	ug/g wet	5.82E0		101	80-120			
Arsenic	5.92E0	4.10E-1	"	5.82E0		102	80-120			
Selenium	5.53E0	7.93E-1	"	5.82E0		94.9	80-120			
Silver	5.29E0	2.56E-2	"	5.82E0		90.9	80-120			
Cadmium	5.71E0	6.77E-2	"	5.82E0		98.1	80-120			
Lead	5.73E0	2.57E-1	"	5.82E0		98.4	80-120			

Duplicate (2C06004-DUP1)

Source: 1201003-01

Prepared & Analyzed: 03/06/12

Chromium	1.05E1	7.33E-1	ug/g dry		1.01E1			4.61	35	
Arsenic	7.84E-1	3.19E-1	"		1.02E0			26.4	35	
Selenium	<6.17E-1	6.17E-1	"		ND				35	
Silver	2.68E-2	2.00E-2	"		5.46E-2			68.2	35	
Cadmium	<5.27E-2	5.27E-2	"		ND				35	
Lead	1.80E0	2.00E-1	"		1.77E0			1.71	35	

Post Spike (2C06004-PS1)

Source: 1201003-01

Prepared & Analyzed: 03/06/12

Chromium	3.03E1	N/A	ug/L	5.00E0	2.52E1	102	75-125			
Arsenic	7.13E0	N/A	"	5.00E0	2.56E0	91.4	75-125			
Selenium	5.20E0	N/A	"	5.00E0	ND	107	75-125			
Silver	4.22E0	N/A	"	5.00E0	1.37E-1	81.7	75-125			
Cadmium	4.86E0	N/A	"	5.00E0	5.01E-2	96.1	75-125			
Lead	9.16E0	N/A	"	5.00E0	4.43E0	94.7	75-125			

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-214-016	PAGE 1 OF 1
COLLECTOR Garcia, Chamberlain		COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7620 (199-D3-5); I-020		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-HR-3 - Sediment		SAF NO. F10-214	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.		FIELD LOGBOOK NO. HNF-N-4918 pg 147	ACTUAL SAMPLE DEPTH 103.0 - 105.1 ft	COA 300110ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	
SHIPPED TO Environmental Sciences Laboratory		OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None	
		HOLDING TIME	6 Months	
		TYPE OF CONTAINER	G/P	
		NO. OF CONTAINER(S)	1	
		VOLUME	1000mL	
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	KD - Batch (No CAS);	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B273M1	SOIL	11-19-10	1015	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM J. Garcia	DATE/TIME 11/19/10 1215	RECEIVED BY/STORED IN SSU-R1	DATE/TIME NOV 19 2010 1215	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. <input type="checkbox"/> The CACN for all analytical work at WSCF laboratory is 401642ES20. BRM # 13564 ORIGINAL	
RELINQUISHED BY/REMOVED FROM SSU-R1	DATE/TIME DEC 02 2010 0730	RECEIVED BY/STORED IN M. A. White	DATE/TIME DEC 02 2010 0730		
RELINQUISHED BY/REMOVED FROM M. A. White	DATE/TIME DEC 02 2010 1400	RECEIVED BY/STORED IN Igor Kutyrevskiy	DATE/TIME DEC 02 2010 9105		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-214-019	PAGE 1 OF 1
COLLECTOR <i>ROMO, KAUER, ZUNKER</i>		COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7621 (199-D5-133); I-022		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-HR-3 - Sediment		SAF NO. F10-214	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.		FIELD LOGBOOK NO. HNF-N-585-12 P936	ACTUAL SAMPLE DEPTH 102.5 - 105.0 FT	COA 300110ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory		OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		


MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION		None
		HOLDING TIME		6 Months
		TYPE OF CONTAINER		G/P
		NO. OF CONTAINER(S)		1
		VOLUME		1000mL
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS		
		KD - Batch (No CAS);		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B27C13	SOIL	12-1-10	1103	/

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM <i>Ed Kauer</i>	DATE/TIME 12-1-10 1205	RECEIVED BY/STORED IN <i>SSU-R1</i>	DATE/TIME 12-1-10 1205	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. BRM # 13564	
RELINQUISHED BY/REMOVED FROM <i>SSU-R1</i>	DATE/TIME DEC 02 2010 0730	RECEIVED BY/STORED IN <i>M. A. White</i>	DATE/TIME DEC 02 2010 0730		
RELINQUISHED BY/REMOVED FROM <i>M. A. White</i>	DATE/TIME DEC 02 2010 9:05	RECEIVED BY/STORED IN <i>Igor Kudryakov</i>	DATE/TIME DEC 02 2010 9:05		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-214-100	PAGE 1 OF 1
COLLECTOR <i>Romo Kauer, Zunker</i>		COMPANY CONTACT RADLOFF, AW	TELEPHONE NO. 376-4554	PROJECT COORDINATOR RADLOFF, AW	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7621 (199-D5-133); I-022 DUP		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-HR-3 - Sediment		SAF NO. F10-214	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.		FIELD LOGBOOK NO. HNF-N-585-12	ACTUAL SAMPLE DEPTH <i>P936 102.5 - 105.0 FT</i>	COA 300110ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory		OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		


MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None	
		HOLDING TIME	6 Months	
		TYPE OF CONTAINER	G/P	
		NO. OF CONTAINER(S)	1	
		VOLUME	1000mL	
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	KD - Batch (No CAS);	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B29M71	SOIL	12-1-10	1103	/

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM <i>Ed Kauer</i>	DATE/TIME 12-1-10	RECEIVED BY/STORED IN SSU-R1	DATE/TIME 12-1-10	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. BR M # 13564 
RELINQUISHED BY/REMOVED FROM SSU-R1	DATE/TIME 12-2-10	RECEIVED BY/STORED IN <i>M. White</i>	DATE/TIME 12-2-10	
RELINQUISHED BY/REMOVED FROM <i>M. White</i>	DATE/TIME 12-2-10	RECEIVED BY/STORED IN <i>Igor Kudryakov</i>	DATE/TIME 12-2-10	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-214-021	PAGE 1 OF 1
COLLECTOR <i>Makker</i>	COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR RADLOFF, AW		PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7629 (199-D6-3); Bottom unconfined aquifer; I-018	PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-HR-3 - Sediment		SAF NO. F10-214	AIR QUALITY <input type="checkbox"/>		
ICE CHEST NO. <i>N/A</i>	FIELD LOGBOOK NO. <i>HNF-11-585 (10929)</i>	ACTUAL SAMPLE DEPTH <i>58.8'</i>	COA 300110ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE		
SHIPPED TO Environmental Sciences Laboratory	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A				

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None	
		HOLDING TIME	6 Months	
		TYPE OF CONTAINER	G/P	
		NO. OF CONTAINER(S)	1	
		VOLUME	1000ml <i>Handwritten mark</i>	
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	KD - Batch (No CAS);	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B27C24	SOIL	<i>11/9/10</i>	<i>0925</i>	

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM <i>D. Smith</i>	DATE/TIME <i>11/9/10-1130</i>	RECEIVED BY/STORED IN <i>M0413 SSUR #</i>	DATE/TIME <i>11/9/10-1130</i>	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. <i>BRM # 13564</i> 	
RELINQUISHED BY/REMOVED FROM SSU-R1	DATE/TIME <i>NOV 11 2010 0700</i>	RECEIVED BY/STORED IN <i>DW Brotherton</i>	DATE/TIME <i>NOV 11 2010 0700</i>		
RELINQUISHED BY/REMOVED FROM <i>cm Douglas</i>	DATE/TIME <i>NOV 11 2010 1330</i>	RECEIVED BY/STORED IN <i>D. Smith</i>	DATE/TIME <i>NOV 11 2010 1330</i>		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-214-032	PAGE 1 OF 1
COLLECTOR <i>Romo, Kayser, Billingsley</i>		COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7626 (199-D6-3); I-018		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-HR-3 - Sediment		SAF NO. F10-214	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N- 576-3	ACTUAL SAMPLE DEPTH 54.9 - 56.9 FT	COA 300110ES10	METHOD OF SHIPMENT FEDERAL EXPRESS		
SHIPPED TO Environmental Sciences Laboratory		OFFSITE PROPERTY NO. SEE PTR	BILL OF LADING/AIR BILL NO. SEE PTR			

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None	
		HOLDING TIME	6 Months	
		TYPE OF CONTAINER	<i>SPLIT SPOON LIME 2</i>	
		NO. OF CONTAINER(S)	1	
		VOLUME	1000mL	
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	KD - Batch (No CAS);	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B28JK2	SOIL	<i>11-3/10</i>	<i>1020</i>	<i>/</i>

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM <i>Rob Romo, Robert Romo</i>	DATE/TIME <i>11-3-10 1330</i>	RECEIVED BY/STORED IN SSU-R2	DATE/TIME <i>NOV 03 2010 1330</i>	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. <input type="checkbox"/> The CACN for all analytical work at WSCF laboratory is 401642ES20. <i>BRM #13564</i>
RELINQUISHED BY/REMOVED FROM SSU-R2	DATE/TIME <i>NOV 04 2010 1030</i>	RECEIVED BY/STORED IN <i>Mahita Mahita</i>	DATE/TIME <i>NOV 04 2010 1030</i>	
RELINQUISHED BY/REMOVED FROM <i>Mahita Mahita</i>	DATE/TIME <i>NOV 04 2010 14:30</i>	RECEIVED BY/STORED IN <i>Ben Williams Ben Williams</i>	DATE/TIME <i>NOV 04 2010 14:30</i>	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	


 ORIGINAL

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

5DB# ESL090020

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-214-036	PAGE 1 OF 1
COLLECTOR <i>Garcia Aguilar, Ramirez</i>		COMPANY CONTACT RADLOFF, A	TELEPHONE NO. 376-4554	PROJECT COORDINATOR RADLOFF, AW	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7628 (199-D6-3); I-018		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-HR-3 - Sediment		SAF NO. F10-214	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. <i>N/A</i>		FIELD LOGBOOK NO. <i>HNF-N-585-12 P3 22</i>	ACTUAL SAMPLE DEPTH <i>to 11/5/10 520-60.5-630'</i>	COA 300110ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory		OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		


MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION		None
		HOLDING TIME		6 Months
		TYPE OF CONTAINER		G/P
		NO. OF CONTAINER(S)		1
		VOLUME		1000mL
SPECIAL HANDLING AND/OR STORAGE RADSCREEN TIE TO: <i>MUM 9/24/10</i>		SAMPLE ANALYSIS		KD - Batch (No CAS);
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B28KF6	SOIL	<i>11/5/10</i>	<i>1454</i>	<i>✓</i>

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM <i>J. Garcia</i>	DATE/TIME <i>11/5/10 1600</i>	RECEIVED BY/STORED IN <i>MO-413 SSU-R1</i>	DATE/TIME <i>11/5/10 1600</i>	** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium. <input type="checkbox"/> ** The laboratory is to achieve a detection limit of 0.25 pCi/g for Technetium. <input type="checkbox"/> <i>BRM # 13564</i> 
RELINQUISHED BY/REMOVED FROM SSU-R1	DATE/TIME <i>NOV 11 2010 0710</i>	RECEIVED BY/STORED IN <i>Am Aguilar Cm Cglh</i>	DATE/TIME <i>NOV 11 2010 0710</i>	
RELINQUISHED BY/REMOVED FROM <i>Am Aguilar Cm Cglh</i>	DATE/TIME <i>NOV 11 2010 1330</i>	RECEIVED BY/STORED IN <i>D Smith</i>	DATE/TIME <i>NOV 11 2010 1330</i>	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-214-038	PAGE 1 OF 1
COLLECTOR GARCIA, YOUNG		COMPANY CONTACT RADLOFF, AW	TELEPHONE NO. 376-4554	PROJECT COORDINATOR RADLOFF, AW	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7630 (199-H1-7); I-016		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-HR-3 - Sediment			SAF NO. F10-214	AIR QUALITY <input type="checkbox"/>
ICE CHEST NO. N/A		FIELD LOGBOOK NO. HNF-N-5763 pg 127	ACTUAL SAMPLE DEPTH 32.0-34.5 ft	COA 300110ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory		OFFSITE PROPERTY NO. N/A			BILL OF LADING/AIR BILL NO. N/A	

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None
		HOLDING TIME	6 Months
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	1000mL
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	KD - Batch (No CAS);
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B28KW9	SOIL	11/2/10	1215


CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. <input type="checkbox"/> The CACN for all analytical work at WSCF laboratory is 401642ES20. BRM # 13564 
J. Garcia	11/2/10 1330	SSU-R4	11/2/10 1330	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
SSU-R4	11-16-10 0700	cm Aquiler emlgah	11-16-10 0700	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
cm Aquiler emlgah	11-16-10 8:40	Igor Kudryakov	11-16-10 8:40	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

SDG # ESL090020

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-214-049	PAGE 1 OF 1
COLLECTOR <i>MORLEY</i>		COMPANY CONTACT RADLOFF, AW	TELEPHONE NO. 376-4554	PROJECT COORDINATOR RADLOFF, AW	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7627 (199-H3-7); I-017		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-HR-3 - Sediment		SAF NO. F10-214	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. <i>N/A</i>		FIELD LOGBOOK NO. <i>HWFA-585 12 (P127)</i>	ACTUAL SAMPLE DEPTH <i>53.6 1</i>	COA 300110ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory		OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION		None
		HOLDING TIME		6 Months
		TYPE OF CONTAINER		G/P
		NO. OF CONTAINER(S)		1
		VOLUME		1000mL
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS		
		KD - Batch (No CAS);		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B28N30	SOIL	<i>11/11/10</i>	<i>1130</i>	<i>-</i>

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. <i>DA. 11-11-10</i> BRM # 13564 
<i>S. Morley</i>	<i>11/11/10 1418</i>	<i>Mo 413 S. Morley</i>	<i>11/11/10 1418</i>	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
<i>SSU-R4</i>	<i>11-16-10 0700</i>	<i>cm Aguilar cm Cogh</i>	<i>11-16-10 0700</i>	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
<i>cm Aguilar cm Cogh</i>	<i>11-16-10 8:40</i>	<i>Igor Kutyayev</i>	<i>11-16-10 8:40</i>	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
		<i>Igor Kutyayev</i>		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-214-056	PAGE 1 OF 1
COLLECTOR GARCIA, ANDERSON		COMPANY CONTACT RADLOFF, AW	TELEPHONE NO. 376-4554	PROJECT COORDINATOR RADLOFF, AW	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7623 (199-D6-3); I-021		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-HR-3 - Sediment		SAF NO. F10-214	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. N/A		FIELD LOGBOOK NO. HNF-N-491-8 1152	ACTUAL SAMPLE DEPTH 106 104	COA 300110ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory		OFFSITE PROPERTY NO. N/A	DA 12.3.10	BILL OF LADING/AIR BILL NO. N/A		

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION		None
		HOLDING TIME		6 Months
		TYPE OF CONTAINER		G/P
		NO. OF CONTAINER(S)		1
		VOLUME		1000mL
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS		
		KD - Batch (No CAS);		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B28YW2	SOIL	12.3.10	0835	—

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.	
DAVE ANDERSON / Dan	12.3.10 / 1115	SSU-R1	DEC 03 2010 / 1115	BRM # 13564	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
SSU-R1	DEC 06 2010 / 1200	M.A. White	DEC 06 2010 / 1200		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
M.A. White	DEC 06 2010 / 13:20	Igor Kutny	DEC 06 2010 / 13:20		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

 ORIGINAL

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME


CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-214-029	PAGE 1 OF 1
COLLECTOR <i>Romo, Kauer, Billingsley</i>		COMPANY CONTACT ANNA RADLOFF	TELEPHONE NO. 376-4554	PROJECT COORDINATOR RADLOFF, AW	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7622 (199-D5-133); I-027		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-HR-3 - Sediment		SAF NO. F10-214	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. <i>N/A</i>		FIELD LOGBOOK NO. <i>HNF-N 585-12 Pgs 51</i>	ACTUAL SAMPLE DEPTH <i>103.2 - 105.0</i>	COA 300110ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE ORIGINAL	
SHIPPED TO Environmental Sciences Laboratory		OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None
		HOLDING TIME	6 Months
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	<i>500</i> 1000mL <i>KS 1/19/11</i>
SPECIAL HANDLING AND/OR STORAGE RADSCREEN TIE TO: B28CP2 <i>KS 1/14/11</i>		SAMPLE ANALYSIS KD - Batch (No CAS);	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B28CP2	SOIL	1-14-11	0850

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM <i>Rob Romo, Roberto Romo</i>	DATE/TIME 1-14-11 1300	RECEIVED BY/STORED IN <i>MO-413 SSU-R1</i>	DATE/TIME 1-14-11 1300	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. <input type="checkbox"/> The CACN for all analytical work at WSCF laboratory is 401642ES20. <i>BRM # 13564</i>	
RELINQUISHED BY/REMOVED FROM <i>SSU-R1</i>	DATE/TIME JAN 19 2011 0940	RECEIVED BY/STORED IN <i>JR. Aguilar</i>	DATE/TIME JAN 19 2011 0940		
RELINQUISHED BY/REMOVED FROM <i>JR. Aguilar</i>	DATE/TIME JAN 19 2011 1340	RECEIVED BY/STORED IN <i>Bea Williams</i>	DATE/TIME 1/19/11 1340		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
LABORATORY SECTION	RECEIVED BY	TITLE		DATE/TIME	
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY		DATE/TIME	

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-214-059	PAGE 1 OF 1
COLLECTOR <i>Christina Garcia</i>		COMPANY CONTACT RADLOFF, AW	TELEPHONE NO. 376-4554	PROJECT COORDINATOR RADLOFF, AW	PRICE CODE 8N	Data Turnaround 30 Days/30 Days
SAMPLING LOCATION C7639 (199-H3-9); I-017		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-HR-3 - Sediment		SAF NO. F10-214	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. <i>N/A</i>		FIELD LOGBOOK NO. <i>PS</i> HNF-N <i>491-14 PL 9</i>	ACTUAL SAMPLE DEPTH <i>46.0 - 48.5 FT</i>	COA 300110ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory		OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None
		HOLDING TIME	6 Months
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	1000mL
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	KD - Batch (No CAS);
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B29C20	SOIL	1/22/11	0818

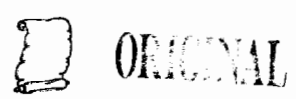
CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM <i>E. Christman</i>	DATE/TIME 1/22/11 1315	RECEIVED BY/STORED IN SSU R1	DATE/TIME 1/22/11 1315	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. <input type="checkbox"/> The CACN for all analytical work at WSCF laboratory is 401642ES20. BRM# 13564 
RELINQUISHED BY/REMOVED FROM SSU-R1	DATE/TIME JAN 24 2011 1100	RECEIVED BY/STORED IN T.A. Wallace	DATE/TIME JAN 24 2011 1100	
RELINQUISHED BY/REMOVED FROM T.A. Wallace	DATE/TIME JAN 24 2011 13:30	RECEIVED BY/STORED IN Igor Kutnyakov	DATE/TIME JAN 24 2011 13:30	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

SDG# ESL090020

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-214-115	PAGE 1 OF 1
COLLECTOR <i>Billingsley, Garcia, Christian</i>		COMPANY CONTACT RADLOFF, AW	TELEPHONE NO. 376-4554	PROJECT COORDINATOR RADLOFF, AW	PRICE CODE 8N	DATA TURNAROUND
SAMPLING LOCATION C7624 (199-D5-134); I-024		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-HR-3 - Sediment		SAF NO. F10-214	PRICE CODE 7 H DATA TURNAROUND 30 DAYS/30 DAYS	
ICE CHEST NO. <i>N/A</i>		FIELD LOGBOOK NO. <i>HNF-N-491-13 P613</i>	ACTUAL SAMPLE DEPTH <i>107.3'-109.8'</i>	COA 300110ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory		OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		


MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None	
		HOLDING TIME	6 Months	
		TYPE OF CONTAINER	G/P	
		NO. OF CONTAINER(S)	1	
		VOLUME	1000mL	
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	KD - Batch (No CAS);	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B29P71	SOIL	1-25-11	0935	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM <i>J. Billingsley</i>	DATE/TIME 1-25-11 1355	RECEIVED BY/STORED IN <i>MD-413</i>	DATE/TIME 1-25-11 1355	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. ** ** The CACN for all analytical work at WSCF laboratory is 401642ES20. BRM # 13564 
RELINQUISHED BY/REMOVED FROM <i>MD-413 SSU-RI</i>	DATE/TIME 1/26/11 0800	RECEIVED BY/STORED IN <i>Thomas Wallace Thomas</i>	DATE/TIME 1/26/11 0800	
RELINQUISHED BY/REMOVED FROM <i>Thomas Wallace Thomas</i>	DATE/TIME 1/26/11 13:15	RECEIVED BY/STORED IN <i>Igor Kutnyakov</i>	DATE/TIME 1/26/11 13:15	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F10-214-089	PAGE 1 OF 1
COLLECTOR MORJON / RADARSON		COMPANY CONTACT RADLOFF, AW	TELEPHONE NO. 376-4554	PROJECT COORDINATOR RADLOFF, AW	PRICE CODE 8N DATA Data Turnaround 30 Days/30 Days
SAMPLING LOCATION C7631 (199-H2-1); I-014		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-HR-3 - Sediment		SAF NO. F10-214	AIR QUALITY <input type="checkbox"/>
ICE CHEST NO. N/A		FIELD LOGBOOK NO. HNF-41-491-14 (Pg 13)	ACTUAL SAMPLE DEPTH 38.1	COA 300110ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory		OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A		

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None
		HOLDING TIME	6 Months
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	1000mL
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	KD - Batch (No CAS);
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B29HN7	SOIL	2/16/11	1435


CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. <input type="checkbox"/> B R M # 13564 	
<i>Stewart Miller</i>	2/16/11 1525	<i>MD 413 SUE</i>	2/16/11 1525		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
<i>SSU-R1</i>	2-17-11 0700	<i>cm Aguilar cm Lopez</i>	2-17-11 0700		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
<i>cm Aguilar cm Lopez</i>	2-17-11 1330	<i>J. K. Johnson</i>	2/17/11 1330		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

SDG # ESL 090020

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-214-143	PAGE 1 OF 1
COLLECTOR BAILEY	COMPANY CONTACT RADLOFF, AW	TELEPHONE NO. 376-4554	PROJECT COORDINATOR RADLOFF, AW		PRICE CODE 8N	Data Turnaround 30 Days/30 Days
SAMPLING LOCATION C7640 (199-H3-10); I-015	PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-HR-3 - Sediment		SAF NO. F10-214	AIR QUALITY <input type="checkbox"/>		
ICE CHEST NO. N/A	FIELD LOGBOOK NO. HNF-N-491-14/21	ACTUAL SAMPLE DEPTH 53.1'-55.4'	COA 300110ES10	METHOD OF SHIPMENT FEDERAL EXPRESS		
SHIPPED TO Environmental Sciences Laboratory		OFFSITE PROPERTY NO. SEE PTR	BILL OF LADING/AIR BILL NO. SEE PTR			

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None	
		HOLDING TIME	6 Months	
		TYPE OF CONTAINER	G/P	
		NO. OF CONTAINER(S)	1	
		VOLUME	1000mL	
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	KD - Batch (No CAS);	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2B4H0	SOIL	3-16-11	1305	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM J. Bailey	DATE/TIME 3-16-11/1500	RECEIVED BY/STORED IN MOY 13 SSU R1	DATE/TIME 3-16-11/1500	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. BRM # 13569 	
RELINQUISHED BY/REMOVED FROM MAR 21 2011	DATE/TIME 0814	RECEIVED BY/STORED IN J.R. Aguilar	DATE/TIME MAR 21 2011		
RELINQUISHED BY/REMOVED FROM SSU R1 J.R. Aguilar	DATE/TIME MAR 21 2011	RECEIVED BY/STORED IN T. Kutyryak	DATE/TIME 1330		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-214-158	PAGE 1 OF 1
COLLECTOR <i>Kaucer, Romo, Kaucer</i>		COMPANY CONTACT RADLOFF, AW	TELEPHONE NO. 376-4554	PROJECT COORDINATOR RADLOFF, AW	PRICE CODE	PRICE CODE 5C DATA TURNAROUND 15 Days/15 Days
SAMPLING LOCATION C8375 (199-D5-143); I-034		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-HR-3 - Sediment		SAF NO. F10-214	AIR QUALITY	<input type="checkbox"/>
ICE CHEST NO. <i>N/A</i>		FIELD LOGBOOK NO. <i>HNF-N-491-13 pg 28</i>	ACTUAL SAMPLE DEPTH <i>105.2 - 107.7 FT</i>	COA 300110ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE ORIGINAL	
SHIPPED TO Environmental Sciences Laboratory		OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None	
		HOLDING TIME	6 Months	
		TYPE OF CONTAINER	G/P	
		NO. OF CONTAINER(S)	1	
		VOLUME	1000mL	
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	KD - Batch (No CAS);	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2C647	SOIL	4-14-11	1440	/

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. BRM # 13564	
<i>Rob Romo, Roberto Romo</i>	<i>4-14-11 1530</i>	<i>MO-413 554 R1</i>	<i>4-14-11 1530</i>		
<i>MO-413 554-R1</i>	<i>4-25-11 1220</i>	<i>MALDI + MALDI</i>	<i>4-25-11 1220</i>		
<i>MALDI + MALDI</i>	<i>4-25-11 13:00</i>	<i>for Kuting-ka</i>	<i>4-25-11 13:00</i>		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
LABORATORY SECTION	RECEIVED BY	TITLE		DATE/TIME	
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY		DATE/TIME	

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-214-162	PAGE 1 OF 1
COLLECTOR <i>Rust, Crow</i>	COMPANY CONTACT RADLOFF, AW	TELEPHONE NO. 376-4554	PROJECT COORDINATOR RADLOFF, AW		PRICE CODE	DATA TURNAROUND 15 DAYS / 15 DAYS 30 Days / 30 Days
SAMPLING LOCATION C8668, I-030	PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-HR-3 - Sediment		SAF NO. F10-214	AIR QUALITY	<input type="checkbox"/>	
ICE CHEST NO. <i>N/A</i>	FIELD LOGBOOK NO. <i>P5</i> <i>HNF-N-491-13 40</i>	ACTUAL SAMPLE DEPTH <i>103.8-106.3 FT</i>	COA <i>300110E510-302509ES10</i>	METHOD OF SHIPMENT FEDERAL EXPRESS		ORIGINAL
SHIPPED TO Environmental Sciences Laboratory		OFFSITE PROPERTY NO. SEE PTR	BILL OF LADING/AIR BILL NO. SEE PTR			

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None	
		HOLDING TIME	6 Months	
		TYPE OF CONTAINER	G/P	
		NO. OF CONTAINER(S)	1	
		VOLUME	1000mL	
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	KD - Batch {No CAS};	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2H4X7	SOIL	10-25-11	0930	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM <i>Steve Rust</i>	DATE/TIME <i>10-25-11</i>	RECEIVED BY/STORED IN <i>A. Steward</i>	DATE/TIME <i>10-25-11 1100</i>	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
RELINQUISHED BY/REMOVED FROM <i>A. Steward</i>	DATE/TIME <i>10-25-11 1155</i>	RECEIVED BY/STORED IN <i>SSU-1</i>	DATE/TIME <i>OCT 25 2011 1155</i>	
RELINQUISHED BY/REMOVED FROM <i>SSU-1</i>	DATE/TIME <i>10-26-11 1240</i>	RECEIVED BY/STORED IN <i>Em Aguilar</i>	DATE/TIME <i>10-26-11 1240</i>	
RELINQUISHED BY/REMOVED FROM <i>Em Aguilar</i>	DATE/TIME <i>10-26-11 1300</i>	RECEIVED BY/STORED IN <i>K. Kuthy</i>	DATE/TIME <i>10-26-11 1300</i>	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
LABORATORY SECTION	RECEIVED BY	TITLE		DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY		DATE/TIME