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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-KR-4 Operable Unit, Boreholes C7684, C7688, and C7695

Michael Lindberg

March 2011



Pacific Northwest
NATIONAL LABORATORY

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M Lindberg

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Pacific Northwest National Laboratory
Richland, Washington 99352

02/24/11 13:14

To: Anna Radloff

From: Michael J. Lindberg

A handwritten signature in black ink, appearing to read 'MJL', with a stylized flourish at the end.

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

Subject: Analytical Data Report for Sediment Samples Collected From 100-KR-4 Operable Unit, Sample Delivery Group ESL090021, SAF Number F10-207

This letter contains the following information for sample delivery group ESL090021

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

Introduction

Between December 17, 2010 and February 17, 2011 sediment samples were received from 100-KR-4 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 could not be met. All applicable hold times were started from the time of preparation and not the time of sampling.

Preparation Blank (PB):

No discrepancies noted.

Duplicate (DUP):

No discrepancies noted.

Laboratory Control Samples (LCS):

LCS Recovery for Chromium, Hexavalent (78.9%) was outside acceptance limits (80-120) in 1B23010-BS2 for Hexavalent Chromium/Soil

The LCS does not meet the control limits in the ESL QA Plan but meets the accuracy requirements of 70-130 % as specified in the statement of work. Sample results associated with this batch are below the EQL. There should be no impact to the data as reported.

Post Spike (PS):

No discrepancies noted.

Matrix Spike (MS):

Matrix Spike Recovery for Chromium, Hexavalent (68.9%) was outside acceptance limits (75-125) in 1B23010-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-KR Remedial Optimization Wells

HEIS No.	Laboratory ID	Matrix	Date Collected	Date Received
B27HR3	1101001-01	SOIL	12/16/10 13:40	12/17/10 13:00
B27HR5	1101001-02	SOIL	12/16/10 14:50	12/17/10 13:00
B27HR7	1101001-03	SOIL	12/23/10 14:05	1/3/11 14:20
B27HR6	1101001-04	SOIL	12/21/10 13:15	1/5/11 14:00
B27LP4	1101001-05	SOIL	1/22/11 07:30	1/24/11 13:30
B27LP7	1101001-06	SOIL	1/26/11 09:15	1/28/11 13:00
B27LP8	1101001-07	SOIL	1/27/11 14:40	1/28/11 13:00
B28FL5	1101001-08	SOIL	1/28/11 13:52	2/1/11 13:25
B28FL7	1101001-09	SOIL	1/31/11 11:25	2/1/11 13:25
B28FL8	1101001-10	SOIL	2/3/11 12:50	2/7/11 13:00
B28FL9	1101001-11	SOIL	2/4/11 11:20	2/7/11 13:00

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

Metals 1:1 DI Water Extract by ICPMS

Metals 1:2.5 DI Water Extract by ICPMS

Metals 1:5 DI Water Extract by ICPMS

Metals Acid Extract by ICPMS

Moisture Content

Hexavalent Chromium by Colorimetric Determination

Metals 1:1 Water Extract by ICPOES

Metals 1:2.5 Water Extract by ICPOES

Metals 1:5 Water Extract by ICPOES

Metals Acid Extract by ICPOES

SAMPLES ANALYZED IN THIS REPORT

HEIS No.	Laboratory ID	Matrix	Date Collected	Date Received
B27HR3	1101001-01	SOIL	12/16/10 13:40	12/17/10 13:00
B27HR5	1101001-02	SOIL	12/16/10 14:50	12/17/10 13:00
B27HR7	1101001-03	SOIL	12/23/10 14:05	1/3/11 14:20
B27HR6	1101001-04	SOIL	12/21/10 13:15	1/5/11 14:00
B27LP4	1101001-05	SOIL	1/22/11 07:30	1/24/11 13:30
B27LP7	1101001-06	SOIL	1/26/11 09:15	1/28/11 13:00
B27LP8	1101001-07	SOIL	1/27/11 14:40	1/28/11 13:00
B28FL5	1101001-08	SOIL	1/28/11 13:52	2/1/11 13:25
B28FL7	1101001-09	SOIL	1/31/11 11:25	2/1/11 13:25
B28FL8	1101001-10	SOIL	2/3/11 12:50	2/7/11 13:00
B28FL9	1101001-11	SOIL	2/4/11 11:20	2/7/11 13:00

Wet Chemistry

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1101001-01	B27HR3	2.00E1	N/A	2/10/11	1B07007
1101001-02	B27HR5	1.67E1	N/A	2/10/11	1B07007
1101001-03	B27HR7	2.47E1	N/A	2/10/11	1B07007
1101001-04	B27HR6	2.50E1	N/A	2/10/11	1B07007
1101001-05	B27LP4	2.20E1	N/A	2/10/11	1B07007
1101001-06	B27LP7	2.17E1	N/A	2/10/11	1B07007
1101001-07	B27LP8	2.46E1	N/A	2/10/11	1B07007
1101001-08	B28FL5	1.89E1	N/A	2/10/11	1B07007
1101001-09	B28FL7	1.83E1	N/A	2/10/11	1B07007
1101001-10	B28FL8	2.71E1	N/A	2/10/11	1B07007
1101001-11	B28FL9	2.49E1	N/A	2/10/11	1B07007

Hexavalent Chromium/Soil

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1101001-01	B27HR3	<5.94E-1	5.94E-1	2/22/11	1B23010
1101001-02	B27HR5	<5.80E-1	5.80E-1	2/22/11	1B23010
1101001-03	B27HR7	<6.30E-1	6.30E-1	2/22/11	1B23010
1101001-04	B27HR6	<6.26E-1	6.26E-1	2/22/11	1B23010
1101001-05	B27LP4	<6.05E-1	6.05E-1	2/22/11	1B23010
1101001-06	B27LP7	<6.15E-1	6.15E-1	2/22/11	1B23010
1101001-07	B27LP8	<6.23E-1	6.23E-1	2/22/11	1B23010
1101001-08	B28FL5	<5.90E-1	5.90E-1	2/22/11	1B23010
1101001-09	B28FL7	<5.87E-1	5.87E-1	2/22/11	1B23010
1101001-10	B28FL8	<6.39E-1	6.39E-1	2/22/11	1B23010
1101001-11	B28FL9	<6.24E-1	6.24E-1	2/22/11	1B23010

Hexavalent Chromium/1:1 Water Extract

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1101001-01	B27HR3	<4.00E-2	4.00E-2	2/18/11	1B17013
1101001-02	B27HR5	<4.16E-2	4.16E-2	2/18/11	1B17013
1101001-03	B27HR7	<3.84E-2	3.84E-2	2/18/11	1B17013
1101001-04	B27HR6	<3.75E-2	3.75E-2	2/18/11	1B17013
1101001-05	B27LP4	<3.91E-2	3.91E-2	2/18/11	1B17013
1101001-06	B27LP7	<3.91E-2	3.91E-2	2/18/11	1B17013
1101001-07	B27LP8	<3.77E-2	3.77E-2	2/18/11	1B17013
1101001-08	B28FL5	<4.05E-2	4.05E-2	2/18/11	1B17013
1101001-09	B28FL7	<4.08E-2	4.08E-2	2/18/11	1B17013
1101001-10	B28FL8	<3.66E-2	3.66E-2	2/18/11	1B17013
1101001-11	B28FL9	<3.75E-2	3.75E-2	2/18/11	1B17013

Hexavalent Chromium/1:2.5 Water Extract

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1101001-01	B27HR3	<1.15E-1	1.15E-1	2/18/11	1B17012
1101001-02	B27HR5	<1.21E-1	1.21E-1	2/18/11	1B17012
1101001-03	B27HR7	<1.13E-1	1.13E-1	2/18/11	1B17012
1101001-04	B27HR6	<1.12E-1	1.12E-1	2/18/11	1B17012
1101001-05	B27LP4	<1.14E-1	1.14E-1	2/18/11	1B17012
1101001-06	B27LP7	<1.14E-1	1.14E-1	2/18/11	1B17012
1101001-07	B27LP8	<1.20E-1	1.20E-1	2/18/11	1B17012
1101001-08	B28FL5	<1.15E-1	1.15E-1	2/18/11	1B17012
1101001-09	B28FL7	<1.16E-1	1.16E-1	2/18/11	1B17012
1101001-10	B28FL8	<1.11E-1	1.11E-1	2/18/11	1B17012
1101001-11	B28FL9	<1.13E-1	1.13E-1	2/18/11	1B17012

Hexavalent Chromium/1:5 Water Extract

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1101001-01	B27HR3	<2.39E-1	2.39E-1	2/18/11	1B17014
1101001-02	B27HR5	<2.41E-1	2.41E-1	2/18/11	1B17014
1101001-03	B27HR7	<2.38E-1	2.38E-1	2/18/11	1B17014
1101001-04	B27HR6	<2.37E-1	2.37E-1	2/18/11	1B17014
1101001-05	B27LP4	<2.45E-1	2.45E-1	2/18/11	1B17014
1101001-06	B27LP7	<2.34E-1	2.34E-1	2/18/11	1B17014
1101001-07	B27LP8	<2.37E-1	2.37E-1	2/18/11	1B17014
1101001-08	B28FL5	<2.41E-1	2.41E-1	2/18/11	1B17014
1101001-09	B28FL7	<2.41E-1	2.41E-1	2/18/11	1B17014
1101001-10	B28FL8	<2.36E-1	2.36E-1	2/18/11	1B17014
1101001-11	B28FL9	<2.41E-1	2.41E-1	2/18/11	1B17014

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No. 7440-39-3	B27HR3 Barium	Lab ID: 1101001-01					
		<8.25E-2	ug/g dry	8.25E-2	2/21/11	1B17009	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27HR5 Barium	Lab ID: 1101001-02					
		<8.25E-2	ug/g dry	8.25E-2	2/21/11	1B17009	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27HR7 Barium	Lab ID: 1101001-03					
		<8.38E-2	ug/g dry	8.38E-2	2/21/11	1B17009	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27HR6 Barium	Lab ID: 1101001-04					
		<8.26E-2	ug/g dry	8.26E-2	2/21/11	1B17009	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27LP4 Barium	Lab ID: 1101001-05					
		<8.27E-2	ug/g dry	8.27E-2	2/21/11	1B17009	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27LP7 Barium	Lab ID: 1101001-06					
		<8.25E-2	ug/g dry	8.25E-2	2/21/11	1B17009	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27LP8 Barium	Lab ID: 1101001-07					
		<8.25E-2	ug/g dry	8.25E-2	2/21/11	1B17009	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28FL5 Barium	Lab ID: 1101001-08					
		<8.25E-2	ug/g dry	8.25E-2	2/21/11	1B17009	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28FL7 Barium	Lab ID: 1101001-09					
		<8.25E-2	ug/g dry	8.25E-2	2/21/11	1B17009	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28FL8 Barium	Lab ID: 1101001-10					
		<8.28E-2	ug/g dry	8.28E-2	2/21/11	1B17009	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28FL9 Barium	Lab ID: 1101001-11					
		<8.25E-2	ug/g dry	8.25E-2	2/21/11	1B17009	PNNL-AGG-ICP-AES

Total Metals by PNNL-AGG-ICP-AES/1:2.5 Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No. 7440-39-3	B27HR3 Barium	Lab ID: 1101001-01					
		<2.06E-1	ug/g dry	2.06E-1	2/21/11	1B17010	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27HR5 Barium	Lab ID: 1101001-02					
		<2.14E-1	ug/g dry	2.14E-1	2/21/11	1B17010	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27HR7 Barium	Lab ID: 1101001-03					
		<2.06E-1	ug/g dry	2.06E-1	2/21/11	1B17010	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27HR6 Barium	Lab ID: 1101001-04					
		<2.06E-1	ug/g dry	2.06E-1	2/21/11	1B17010	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27LP4 Barium	Lab ID: 1101001-05					
		<2.06E-1	ug/g dry	2.06E-1	2/21/11	1B17010	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27LP7 Barium	Lab ID: 1101001-06					
		<2.06E-1	ug/g dry	2.06E-1	2/21/11	1B17010	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27LP8 Barium	Lab ID: 1101001-07					
		<2.18E-1	ug/g dry	2.18E-1	2/21/11	1B17010	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28FL5 Barium	Lab ID: 1101001-08					
		<2.06E-1	ug/g dry	2.06E-1	2/21/11	1B17010	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28FL7 Barium	Lab ID: 1101001-09					
		<2.06E-1	ug/g dry	2.06E-1	2/21/11	1B17010	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28FL8 Barium	Lab ID: 1101001-10					
		<2.06E-1	ug/g dry	2.06E-1	2/21/11	1B17010	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28FL9 Barium	Lab ID: 1101001-11					
		<2.06E-1	ug/g dry	2.06E-1	2/21/11	1B17010	PNNL-AGG-ICP-AES

Total Metals by PNNL-AGG-ICP-AES/1:5 Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No. 7440-39-3	B27HR3 Barium	Lab ID: 1101001-01					
		<4.12E-1	ug/g dry	4.12E-1	2/21/11	1B17011	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27HR5 Barium	Lab ID: 1101001-02					
		<4.11E-1	ug/g dry	4.11E-1	2/21/11	1B17011	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27HR7 Barium	Lab ID: 1101001-03					
		<4.13E-1	ug/g dry	4.13E-1	2/21/11	1B17011	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27HR6 Barium	Lab ID: 1101001-04					
		<4.12E-1	ug/g dry	4.12E-1	2/21/11	1B17011	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27LP4 Barium	Lab ID: 1101001-05					
		<4.23E-1	ug/g dry	4.23E-1	2/21/11	1B17011	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27LP7 Barium	Lab ID: 1101001-06					
		<4.04E-1	ug/g dry	4.04E-1	2/21/11	1B17011	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27LP8 Barium	Lab ID: 1101001-07					
		<4.11E-1	ug/g dry	4.11E-1	2/21/11	1B17011	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28FL5 Barium	Lab ID: 1101001-08					
		<4.13E-1	ug/g dry	4.13E-1	2/21/11	1B17011	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28FL7 Barium	Lab ID: 1101001-09					
		<4.12E-1	ug/g dry	4.12E-1	2/21/11	1B17011	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28FL8 Barium	Lab ID: 1101001-10					
		<4.13E-1	ug/g dry	4.13E-1	2/21/11	1B17011	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28FL9 Barium	Lab ID: 1101001-11					
		<4.19E-1	ug/g dry	4.19E-1	2/21/11	1B17011	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	B27HR3 Barium	Lab ID: 1101001-01 6.15E1	1101001-01 ug/g dry	1.73E0	2/14/11	1B14001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27HR5 Barium	Lab ID: 1101001-02 2.98E1	1101001-02 ug/g dry	1.71E0	2/14/11	1B14001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27HR7 Barium	Lab ID: 1101001-03 7.98E1	1101001-03 ug/g dry	1.76E0	2/14/11	1B14001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27HR6 Barium	Lab ID: 1101001-04 4.14E1	1101001-04 ug/g dry	1.81E0	2/14/11	1B14001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27LP4 Barium	Lab ID: 1101001-05 6.66E1	1101001-05 ug/g dry	1.76E0	2/14/11	1B14001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27LP7 Barium	Lab ID: 1101001-06 1.03E2	1101001-06 ug/g dry	2.28E0	2/14/11	1B14001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27LP8 Barium	Lab ID: 1101001-07 6.31E1	1101001-07 ug/g dry	1.77E0	2/14/11	1B14001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28FL5 Barium	Lab ID: 1101001-08 4.38E1	1101001-08 ug/g dry	1.68E0	2/14/11	1B14001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28FL7 Barium	Lab ID: 1101001-09 3.94E1	1101001-09 ug/g dry	1.71E0	2/14/11	1B14001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28FL8 Barium	Lab ID: 1101001-10 4.27E1	1101001-10 ug/g dry	1.83E0	2/14/11	1B14001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B28FL9 Barium	Lab ID: 1101001-11 7.62E1	1101001-11 ug/g dry	1.75E0	2/14/11	1B14001	PNNL-AGG-ICP-AES

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B27HR3	Lab ID: 1101001-01					
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	2/17/11	1B17004	PNNL-AGG-415
7440-38-2	Arsenic	1.02E-2	ug/g dry	2.83E-3	2/17/11	1B17004	PNNL-AGG-415
14687-58-2	Selenium	<7.91E-3	ug/g dry	7.91E-3	2/17/11	1B17004	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	2/17/11	1B17004	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	2/17/11	1B17004	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	2/17/11	1B17004	PNNL-AGG-415
HEIS No.	B27HR5	Lab ID: 1101001-02					
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	2/17/11	1B17004	PNNL-AGG-415
7440-38-2	Arsenic	1.16E-2	ug/g dry	2.83E-3	2/17/11	1B17004	PNNL-AGG-415
14687-58-2	Selenium	<7.91E-3	ug/g dry	7.91E-3	2/17/11	1B17004	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	2/17/11	1B17004	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	2/17/11	1B17004	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	2/17/11	1B17004	PNNL-AGG-415
HEIS No.	B27HR7	Lab ID: 1101001-03					
14092-98-9	Chromium	<3.50E-3	ug/g dry	3.50E-3	2/17/11	1B17004	PNNL-AGG-415
7440-38-2	Arsenic	8.18E-3	ug/g dry	2.88E-3	2/17/11	1B17004	PNNL-AGG-415
14687-58-2	Selenium	<8.04E-3	ug/g dry	8.04E-3	2/17/11	1B17004	PNNL-AGG-415
14378-37-1	Silver	<3.18E-3	ug/g dry	3.18E-3	2/17/11	1B17004	PNNL-AGG-415
14336-64-2	Cadmium	<5.82E-4	ug/g dry	5.82E-4	2/17/11	1B17004	PNNL-AGG-415
13966-28-4	Lead	<1.18E-3	ug/g dry	1.18E-3	2/17/11	1B17004	PNNL-AGG-415
HEIS No.	B27HR6	Lab ID: 1101001-04					
14092-98-9	Chromium	<3.45E-3	ug/g dry	3.45E-3	2/17/11	1B17004	PNNL-AGG-415
7440-38-2	Arsenic	6.85E-3	ug/g dry	2.84E-3	2/17/11	1B17004	PNNL-AGG-415
14687-58-2	Selenium	<7.92E-3	ug/g dry	7.92E-3	2/17/11	1B17004	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	2/17/11	1B17004	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	2/17/11	1B17004	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	2/17/11	1B17004	PNNL-AGG-415
HEIS No.	B27LP4	Lab ID: 1101001-05					
14092-98-9	Chromium	<3.45E-3	ug/g dry	3.45E-3	2/17/11	1B17004	PNNL-AGG-415
7440-38-2	Arsenic	9.35E-3	ug/g dry	2.84E-3	2/17/11	1B17004	PNNL-AGG-415
14687-58-2	Selenium	<7.93E-3	ug/g dry	7.93E-3	2/17/11	1B17004	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	2/17/11	1B17004	PNNL-AGG-415
14336-64-2	Cadmium	<5.74E-4	ug/g dry	5.74E-4	2/17/11	1B17004	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	2/17/11	1B17004	PNNL-AGG-415
HEIS No.	B27LP7	Lab ID: 1101001-06					
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	2/17/11	1B17004	PNNL-AGG-415
7440-38-2	Arsenic	5.04E-3	ug/g dry	2.84E-3	2/17/11	1B17004	PNNL-AGG-415
14687-58-2	Selenium	<7.92E-3	ug/g dry	7.92E-3	2/17/11	1B17004	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	2/17/11	1B17004	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	2/17/11	1B17004	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	2/17/11	1B17004	PNNL-AGG-415
HEIS No.	B27LP8	Lab ID: 1101001-07					
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	2/17/11	1B17004	PNNL-AGG-415
7440-38-2	Arsenic	7.72E-3	ug/g dry	2.83E-3	2/17/11	1B17004	PNNL-AGG-415
14687-58-2	Selenium	<7.91E-3	ug/g dry	7.91E-3	2/17/11	1B17004	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	2/17/11	1B17004	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	2/17/11	1B17004	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	2/17/11	1B17004	PNNL-AGG-415

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B28FL5	Lab ID: 1101001-08					
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	2/17/11	1B17004	PNNL-AGG-415
7440-38-2	Arsenic	1.08E-2	ug/g dry	2.83E-3	2/17/11	1B17004	PNNL-AGG-415
14687-58-2	Selenium	<7.91E-3	ug/g dry	7.91E-3	2/17/11	1B17004	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	2/17/11	1B17004	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	2/17/11	1B17004	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	2/17/11	1B17004	PNNL-AGG-415
HEIS No.	B28FL7	Lab ID: 1101001-09					
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	2/17/11	1B17004	PNNL-AGG-415
7440-38-2	Arsenic	1.37E-2	ug/g dry	2.84E-3	2/17/11	1B17004	PNNL-AGG-415
14687-58-2	Selenium	<7.92E-3	ug/g dry	7.92E-3	2/17/11	1B17004	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	2/17/11	1B17004	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	2/17/11	1B17004	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	2/17/11	1B17004	PNNL-AGG-415
HEIS No.	B28FL8	Lab ID: 1101001-10					
14092-98-9	Chromium	<3.46E-3	ug/g dry	3.46E-3	2/17/11	1B17004	PNNL-AGG-415
7440-38-2	Arsenic	6.70E-3	ug/g dry	2.85E-3	2/17/11	1B17004	PNNL-AGG-415
14687-58-2	Selenium	<7.94E-3	ug/g dry	7.94E-3	2/17/11	1B17004	PNNL-AGG-415
14378-37-1	Silver	<3.14E-3	ug/g dry	3.14E-3	2/17/11	1B17004	PNNL-AGG-415
14336-64-2	Cadmium	<5.75E-4	ug/g dry	5.75E-4	2/17/11	1B17004	PNNL-AGG-415
13966-28-4	Lead	<1.17E-3	ug/g dry	1.17E-3	2/17/11	1B17004	PNNL-AGG-415
HEIS No.	B28FL9	Lab ID: 1101001-11					
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	2/17/11	1B17004	PNNL-AGG-415
7440-38-2	Arsenic	6.36E-3	ug/g dry	2.84E-3	2/17/11	1B17004	PNNL-AGG-415
14687-58-2	Selenium	<7.91E-3	ug/g dry	7.91E-3	2/17/11	1B17004	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	2/17/11	1B17004	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	2/17/11	1B17004	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	2/17/11	1B17004	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/1:2.5 Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B27HR3	Lab ID: 1101001-01					
14092-98-9	Chromium	<8.62E-3	ug/g dry	8.62E-3	2/17/11	1B17005	PNNL-AGG-415
7440-38-2	Arsenic	1.95E-2	ug/g dry	7.10E-3	2/17/11	1B17005	PNNL-AGG-415
14687-58-2	Selenium	<1.98E-2	ug/g dry	1.98E-2	2/17/11	1B17005	PNNL-AGG-415
14378-37-1	Silver	<7.83E-3	ug/g dry	7.83E-3	2/17/11	1B17005	PNNL-AGG-415
14336-64-2	Cadmium	<1.43E-3	ug/g dry	1.43E-3	2/17/11	1B17005	PNNL-AGG-415
13966-28-4	Lead	<2.91E-3	ug/g dry	2.91E-3	2/17/11	1B17005	PNNL-AGG-415
HEIS No.	B27HR5	Lab ID: 1101001-02					
14092-98-9	Chromium	<8.92E-3	ug/g dry	8.92E-3	2/17/11	1B17005	PNNL-AGG-415
7440-38-2	Arsenic	2.35E-2	ug/g dry	7.35E-3	2/17/11	1B17005	PNNL-AGG-415
14687-58-2	Selenium	<2.05E-2	ug/g dry	2.05E-2	2/17/11	1B17005	PNNL-AGG-415
14378-37-1	Silver	<8.10E-3	ug/g dry	8.10E-3	2/17/11	1B17005	PNNL-AGG-415
14336-64-2	Cadmium	<1.48E-3	ug/g dry	1.48E-3	2/17/11	1B17005	PNNL-AGG-415
13966-28-4	Lead	<3.01E-3	ug/g dry	3.01E-3	2/17/11	1B17005	PNNL-AGG-415
HEIS No.	B27HR7	Lab ID: 1101001-03					
14092-98-9	Chromium	<8.61E-3	ug/g dry	8.61E-3	2/17/11	1B17005	PNNL-AGG-415
7440-38-2	Arsenic	1.68E-2	ug/g dry	7.09E-3	2/17/11	1B17005	PNNL-AGG-415
14687-58-2	Selenium	<1.98E-2	ug/g dry	1.98E-2	2/17/11	1B17005	PNNL-AGG-415
14378-37-1	Silver	<7.82E-3	ug/g dry	7.82E-3	2/17/11	1B17005	PNNL-AGG-415
14336-64-2	Cadmium	<1.43E-3	ug/g dry	1.43E-3	2/17/11	1B17005	PNNL-AGG-415
13966-28-4	Lead	<2.91E-3	ug/g dry	2.91E-3	2/17/11	1B17005	PNNL-AGG-415
HEIS No.	B27HR6	Lab ID: 1101001-04					
14092-98-9	Chromium	<8.61E-3	ug/g dry	8.61E-3	2/17/11	1B17005	PNNL-AGG-415
7440-38-2	Arsenic	1.57E-2	ug/g dry	7.09E-3	2/17/11	1B17005	PNNL-AGG-415
14687-58-2	Selenium	<1.98E-2	ug/g dry	1.98E-2	2/17/11	1B17005	PNNL-AGG-415
14378-37-1	Silver	<7.82E-3	ug/g dry	7.82E-3	2/17/11	1B17005	PNNL-AGG-415
14336-64-2	Cadmium	<1.43E-3	ug/g dry	1.43E-3	2/17/11	1B17005	PNNL-AGG-415
13966-28-4	Lead	<2.90E-3	ug/g dry	2.90E-3	2/17/11	1B17005	PNNL-AGG-415
HEIS No.	B27LP4	Lab ID: 1101001-05					
14092-98-9	Chromium	<8.61E-3	ug/g dry	8.61E-3	2/17/11	1B17005	PNNL-AGG-415
7440-38-2	Arsenic	2.21E-2	ug/g dry	7.09E-3	2/17/11	1B17005	PNNL-AGG-415
14687-58-2	Selenium	<1.98E-2	ug/g dry	1.98E-2	2/17/11	1B17005	PNNL-AGG-415
14378-37-1	Silver	<7.82E-3	ug/g dry	7.82E-3	2/17/11	1B17005	PNNL-AGG-415
14336-64-2	Cadmium	<1.43E-3	ug/g dry	1.43E-3	2/17/11	1B17005	PNNL-AGG-415
13966-28-4	Lead	<2.90E-3	ug/g dry	2.90E-3	2/17/11	1B17005	PNNL-AGG-415
HEIS No.	B27LP7	Lab ID: 1101001-06					
14092-98-9	Chromium	<8.60E-3	ug/g dry	8.60E-3	2/17/11	1B17005	PNNL-AGG-415
7440-38-2	Arsenic	1.10E-2	ug/g dry	7.08E-3	2/17/11	1B17005	PNNL-AGG-415
14687-58-2	Selenium	<1.98E-2	ug/g dry	1.98E-2	2/17/11	1B17005	PNNL-AGG-415
14378-37-1	Silver	<7.81E-3	ug/g dry	7.81E-3	2/17/11	1B17005	PNNL-AGG-415
14336-64-2	Cadmium	<1.43E-3	ug/g dry	1.43E-3	2/17/11	1B17005	PNNL-AGG-415
13966-28-4	Lead	<2.90E-3	ug/g dry	2.90E-3	2/17/11	1B17005	PNNL-AGG-415
HEIS No.	B27LP8	Lab ID: 1101001-07					
14092-98-9	Chromium	<9.09E-3	ug/g dry	9.09E-3	2/17/11	1B17005	PNNL-AGG-415
7440-38-2	Arsenic	1.81E-2	ug/g dry	7.49E-3	2/17/11	1B17005	PNNL-AGG-415
14687-58-2	Selenium	<2.09E-2	ug/g dry	2.09E-2	2/17/11	1B17005	PNNL-AGG-415
14378-37-1	Silver	<8.26E-3	ug/g dry	8.26E-3	2/17/11	1B17005	PNNL-AGG-415
14336-64-2	Cadmium	<1.51E-3	ug/g dry	1.51E-3	2/17/11	1B17005	PNNL-AGG-415
13966-28-4	Lead	<3.07E-3	ug/g dry	3.07E-3	2/17/11	1B17005	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/1:2.5 Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B28FL5	Lab ID: 1101001-08					
14092-98-9	Chromium	<8.60E-3	ug/g dry	8.60E-3	2/17/11	1B17005	PNNL-AGG-415
7440-38-2	Arsenic	2.98E-2	ug/g dry	7.08E-3	2/17/11	1B17005	PNNL-AGG-415
14687-58-2	Selenium	<1.98E-2	ug/g dry	1.98E-2	2/17/11	1B17005	PNNL-AGG-415
14378-37-1	Silver	<7.81E-3	ug/g dry	7.81E-3	2/17/11	1B17005	PNNL-AGG-415
14336-64-2	Cadmium	<1.43E-3	ug/g dry	1.43E-3	2/17/11	1B17005	PNNL-AGG-415
13966-28-4	Lead	<2.90E-3	ug/g dry	2.90E-3	2/17/11	1B17005	PNNL-AGG-415
HEIS No.	B28FL7	Lab ID: 1101001-09					
14092-98-9	Chromium	<8.59E-3	ug/g dry	8.59E-3	2/17/11	1B17005	PNNL-AGG-415
7440-38-2	Arsenic	2.57E-2	ug/g dry	7.07E-3	2/17/11	1B17005	PNNL-AGG-415
14687-58-2	Selenium	<1.97E-2	ug/g dry	1.97E-2	2/17/11	1B17005	PNNL-AGG-415
14378-37-1	Silver	<7.80E-3	ug/g dry	7.80E-3	2/17/11	1B17005	PNNL-AGG-415
14336-64-2	Cadmium	<1.43E-3	ug/g dry	1.43E-3	2/17/11	1B17005	PNNL-AGG-415
13966-28-4	Lead	<2.90E-3	ug/g dry	2.90E-3	2/17/11	1B17005	PNNL-AGG-415
HEIS No.	B28FL8	Lab ID: 1101001-10					
14092-98-9	Chromium	<8.61E-3	ug/g dry	8.61E-3	2/17/11	1B17005	PNNL-AGG-415
7440-38-2	Arsenic	1.72E-2	ug/g dry	7.09E-3	2/17/11	1B17005	PNNL-AGG-415
14687-58-2	Selenium	<1.98E-2	ug/g dry	1.98E-2	2/17/11	1B17005	PNNL-AGG-415
14378-37-1	Silver	<7.81E-3	ug/g dry	7.81E-3	2/17/11	1B17005	PNNL-AGG-415
14336-64-2	Cadmium	<1.43E-3	ug/g dry	1.43E-3	2/17/11	1B17005	PNNL-AGG-415
13966-28-4	Lead	<2.90E-3	ug/g dry	2.90E-3	2/17/11	1B17005	PNNL-AGG-415
HEIS No.	B28FL9	Lab ID: 1101001-11					
14092-98-9	Chromium	<8.61E-3	ug/g dry	8.61E-3	2/17/11	1B17005	PNNL-AGG-415
7440-38-2	Arsenic	1.58E-2	ug/g dry	7.09E-3	2/17/11	1B17005	PNNL-AGG-415
14687-58-2	Selenium	<1.98E-2	ug/g dry	1.98E-2	2/17/11	1B17005	PNNL-AGG-415
14378-37-1	Silver	<7.82E-3	ug/g dry	7.82E-3	2/17/11	1B17005	PNNL-AGG-415
14336-64-2	Cadmium	<1.43E-3	ug/g dry	1.43E-3	2/17/11	1B17005	PNNL-AGG-415
13966-28-4	Lead	<2.90E-3	ug/g dry	2.90E-3	2/17/11	1B17005	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/1:5 Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B27HR3	Lab ID: 1101001-01					
14092-98-9	Chromium	<1.72E-2	ug/g dry	1.72E-2	2/17/11	1B17006	PNNL-AGG-415
7440-38-2	Arsenic	2.89E-2	ug/g dry	1.41E-2	2/17/11	1B17006	PNNL-AGG-415
14687-58-2	Selenium	<3.95E-2	ug/g dry	3.95E-2	2/17/11	1B17006	PNNL-AGG-415
14378-37-1	Silver	<1.56E-2	ug/g dry	1.56E-2	2/17/11	1B17006	PNNL-AGG-415
14336-64-2	Cadmium	<2.86E-3	ug/g dry	2.86E-3	2/17/11	1B17006	PNNL-AGG-415
13966-28-4	Lead	<5.80E-3	ug/g dry	5.80E-3	2/17/11	1B17006	PNNL-AGG-415
HEIS No.	B27HR5	Lab ID: 1101001-02					
14092-98-9	Chromium	<1.72E-2	ug/g dry	1.72E-2	2/17/11	1B17006	PNNL-AGG-415
7440-38-2	Arsenic	3.21E-2	ug/g dry	1.41E-2	2/17/11	1B17006	PNNL-AGG-415
14687-58-2	Selenium	<3.94E-2	ug/g dry	3.94E-2	2/17/11	1B17006	PNNL-AGG-415
14378-37-1	Silver	<1.56E-2	ug/g dry	1.56E-2	2/17/11	1B17006	PNNL-AGG-415
14336-64-2	Cadmium	<2.85E-3	ug/g dry	2.85E-3	2/17/11	1B17006	PNNL-AGG-415
13966-28-4	Lead	<5.79E-3	ug/g dry	5.79E-3	2/17/11	1B17006	PNNL-AGG-415
HEIS No.	B27HR7	Lab ID: 1101001-03					
14092-98-9	Chromium	<1.72E-2	ug/g dry	1.72E-2	2/17/11	1B17006	PNNL-AGG-415
7440-38-2	Arsenic	3.03E-2	ug/g dry	1.42E-2	2/17/11	1B17006	PNNL-AGG-415
14687-58-2	Selenium	<3.96E-2	ug/g dry	3.96E-2	2/17/11	1B17006	PNNL-AGG-415
14378-37-1	Silver	<1.57E-2	ug/g dry	1.57E-2	2/17/11	1B17006	PNNL-AGG-415
14336-64-2	Cadmium	<2.87E-3	ug/g dry	2.87E-3	2/17/11	1B17006	PNNL-AGG-415
13966-28-4	Lead	<5.81E-3	ug/g dry	5.81E-3	2/17/11	1B17006	PNNL-AGG-415
HEIS No.	B27HR6	Lab ID: 1101001-04					
14092-98-9	Chromium	<1.72E-2	ug/g dry	1.72E-2	2/17/11	1B17006	PNNL-AGG-415
7440-38-2	Arsenic	2.65E-2	ug/g dry	1.41E-2	2/17/11	1B17006	PNNL-AGG-415
14687-58-2	Selenium	<3.95E-2	ug/g dry	3.95E-2	2/17/11	1B17006	PNNL-AGG-415
14378-37-1	Silver	<1.56E-2	ug/g dry	1.56E-2	2/17/11	1B17006	PNNL-AGG-415
14336-64-2	Cadmium	<2.86E-3	ug/g dry	2.86E-3	2/17/11	1B17006	PNNL-AGG-415
13966-28-4	Lead	<5.80E-3	ug/g dry	5.80E-3	2/17/11	1B17006	PNNL-AGG-415
HEIS No.	B27LP4	Lab ID: 1101001-05					
14092-98-9	Chromium	<1.76E-2	ug/g dry	1.76E-2	2/17/11	1B17006	PNNL-AGG-415
7440-38-2	Arsenic	2.41E-2	ug/g dry	1.45E-2	2/17/11	1B17006	PNNL-AGG-415
14687-58-2	Selenium	<4.05E-2	ug/g dry	4.05E-2	2/17/11	1B17006	PNNL-AGG-415
14378-37-1	Silver	<1.60E-2	ug/g dry	1.60E-2	2/17/11	1B17006	PNNL-AGG-415
14336-64-2	Cadmium	<2.93E-3	ug/g dry	2.93E-3	2/17/11	1B17006	PNNL-AGG-415
13966-28-4	Lead	3.14E-2	ug/g dry	5.95E-3	2/17/11	1B17006	PNNL-AGG-415
HEIS No.	B27LP7	Lab ID: 1101001-06					
14092-98-9	Chromium	<1.68E-2	ug/g dry	1.68E-2	2/17/11	1B17006	PNNL-AGG-415
7440-38-2	Arsenic	1.46E-2	ug/g dry	1.39E-2	2/17/11	1B17006	PNNL-AGG-415
14687-58-2	Selenium	<3.87E-2	ug/g dry	3.87E-2	2/17/11	1B17006	PNNL-AGG-415
14378-37-1	Silver	<1.53E-2	ug/g dry	1.53E-2	2/17/11	1B17006	PNNL-AGG-415
14336-64-2	Cadmium	<2.80E-3	ug/g dry	2.80E-3	2/17/11	1B17006	PNNL-AGG-415
13966-28-4	Lead	<5.68E-3	ug/g dry	5.68E-3	2/17/11	1B17006	PNNL-AGG-415
HEIS No.	B27LP8	Lab ID: 1101001-07					
14092-98-9	Chromium	<1.72E-2	ug/g dry	1.72E-2	2/17/11	1B17006	PNNL-AGG-415
7440-38-2	Arsenic	2.47E-2	ug/g dry	1.41E-2	2/17/11	1B17006	PNNL-AGG-415
14687-58-2	Selenium	<3.95E-2	ug/g dry	3.95E-2	2/17/11	1B17006	PNNL-AGG-415
14378-37-1	Silver	<1.56E-2	ug/g dry	1.56E-2	2/17/11	1B17006	PNNL-AGG-415
14336-64-2	Cadmium	<2.86E-3	ug/g dry	2.86E-3	2/17/11	1B17006	PNNL-AGG-415
13966-28-4	Lead	<5.79E-3	ug/g dry	5.79E-3	2/17/11	1B17006	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/1:5 Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B28FL5	Lab ID: 1101001-08					
14092-98-9	Chromium	<1.72E-2	ug/g dry	1.72E-2	2/17/11	1B17006	PNNL-AGG-415
7440-38-2	Arsenic	4.67E-2	ug/g dry	1.42E-2	2/17/11	1B17006	PNNL-AGG-415
14687-58-2	Selenium	<3.96E-2	ug/g dry	3.96E-2	2/17/11	1B17006	PNNL-AGG-415
14378-37-1	Silver	<1.56E-2	ug/g dry	1.56E-2	2/17/11	1B17006	PNNL-AGG-415
14336-64-2	Cadmium	<2.86E-3	ug/g dry	2.86E-3	2/17/11	1B17006	PNNL-AGG-415
13966-28-4	Lead	<5.81E-3	ug/g dry	5.81E-3	2/17/11	1B17006	PNNL-AGG-415
HEIS No.	B28FL7	Lab ID: 1101001-09					
14092-98-9	Chromium	<1.72E-2	ug/g dry	1.72E-2	2/17/11	1B17006	PNNL-AGG-415
7440-38-2	Arsenic	5.31E-2	ug/g dry	1.42E-2	2/17/11	1B17006	PNNL-AGG-415
14687-58-2	Selenium	<3.96E-2	ug/g dry	3.96E-2	2/17/11	1B17006	PNNL-AGG-415
14378-37-1	Silver	<1.56E-2	ug/g dry	1.56E-2	2/17/11	1B17006	PNNL-AGG-415
14336-64-2	Cadmium	<2.86E-3	ug/g dry	2.86E-3	2/17/11	1B17006	PNNL-AGG-415
13966-28-4	Lead	<5.81E-3	ug/g dry	5.81E-3	2/17/11	1B17006	PNNL-AGG-415
HEIS No.	B28FL8	Lab ID: 1101001-10					
14092-98-9	Chromium	<1.72E-2	ug/g dry	1.72E-2	2/17/11	1B17006	PNNL-AGG-415
7440-38-2	Arsenic	2.87E-2	ug/g dry	1.42E-2	2/17/11	1B17006	PNNL-AGG-415
14687-58-2	Selenium	<3.96E-2	ug/g dry	3.96E-2	2/17/11	1B17006	PNNL-AGG-415
14378-37-1	Silver	<1.56E-2	ug/g dry	1.56E-2	2/17/11	1B17006	PNNL-AGG-415
14336-64-2	Cadmium	<2.86E-3	ug/g dry	2.86E-3	2/17/11	1B17006	PNNL-AGG-415
13966-28-4	Lead	<5.81E-3	ug/g dry	5.81E-3	2/17/11	1B17006	PNNL-AGG-415
HEIS No.	B28FL9	Lab ID: 1101001-11					
14092-98-9	Chromium	<1.75E-2	ug/g dry	1.75E-2	2/17/11	1B17006	PNNL-AGG-415
7440-38-2	Arsenic	2.72E-2	ug/g dry	1.44E-2	2/17/11	1B17006	PNNL-AGG-415
14687-58-2	Selenium	<4.02E-2	ug/g dry	4.02E-2	2/17/11	1B17006	PNNL-AGG-415
14378-37-1	Silver	<1.59E-2	ug/g dry	1.59E-2	2/17/11	1B17006	PNNL-AGG-415
14336-64-2	Cadmium	<2.91E-3	ug/g dry	2.91E-3	2/17/11	1B17006	PNNL-AGG-415
13966-28-4	Lead	<5.90E-3	ug/g dry	5.90E-3	2/17/11	1B17006	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B27HR3	Lab ID: 1101001-01					
14092-98-9	Chromium	2.18E1	ug/g dry	7.92E-1	2/15/11	1B15004	PNNL-AGG-415
7440-38-2	Arsenic	1.02E0	ug/g dry	3.45E-1	2/15/11	1B15004	PNNL-AGG-415
14687-58-2	Selenium	<6.67E-1	ug/g dry	6.67E-1	2/15/11	1B15004	PNNL-AGG-415
14378-37-1	Silver	1.18E-1	ug/g dry	2.16E-2	2/15/11	1B15004	PNNL-AGG-415
14336-64-2	Cadmium	<5.69E-2	ug/g dry	5.69E-2	2/15/11	1B15004	PNNL-AGG-415
13966-28-4	Lead	6.19E0	ug/g dry	2.16E-1	2/15/11	1B15004	PNNL-AGG-415
HEIS No.	B27HR5	Lab ID: 1101001-02					
14092-98-9	Chromium	1.09E1	ug/g dry	7.84E-1	2/15/11	1B15004	PNNL-AGG-415
7440-38-2	Arsenic	1.00E0	ug/g dry	3.41E-1	2/15/11	1B15004	PNNL-AGG-415
14687-58-2	Selenium	<6.60E-1	ug/g dry	6.60E-1	2/15/11	1B15004	PNNL-AGG-415
14378-37-1	Silver	2.86E-2	ug/g dry	2.13E-2	2/15/11	1B15004	PNNL-AGG-415
14336-64-2	Cadmium	<5.63E-2	ug/g dry	5.63E-2	2/15/11	1B15004	PNNL-AGG-415
13966-28-4	Lead	3.45E0	ug/g dry	2.14E-1	2/15/11	1B15004	PNNL-AGG-415
HEIS No.	B27HR7	Lab ID: 1101001-03					
14092-98-9	Chromium	1.59E1	ug/g dry	8.03E-1	2/15/11	1B15004	PNNL-AGG-415
7440-38-2	Arsenic	8.41E0	ug/g dry	3.50E-1	2/15/11	1B15004	PNNL-AGG-415
14687-58-2	Selenium	<6.76E-1	ug/g dry	6.76E-1	2/15/11	1B15004	PNNL-AGG-415
14378-37-1	Silver	4.93E-2	ug/g dry	2.19E-2	2/15/11	1B15004	PNNL-AGG-415
14336-64-2	Cadmium	1.18E-1	ug/g dry	5.77E-2	2/15/11	1B15004	PNNL-AGG-415
13966-28-4	Lead	9.03E0	ug/g dry	2.19E-1	2/15/11	1B15004	PNNL-AGG-415
HEIS No.	B27HR6	Lab ID: 1101001-04					
14092-98-9	Chromium	1.12E1	ug/g dry	8.27E-1	2/15/11	1B15004	PNNL-AGG-415
7440-38-2	Arsenic	1.24E0	ug/g dry	3.60E-1	2/15/11	1B15004	PNNL-AGG-415
14687-58-2	Selenium	<6.96E-1	ug/g dry	6.96E-1	2/15/11	1B15004	PNNL-AGG-415
14378-37-1	Silver	3.44E-2	ug/g dry	2.25E-2	2/15/11	1B15004	PNNL-AGG-415
14336-64-2	Cadmium	<5.95E-2	ug/g dry	5.95E-2	2/15/11	1B15004	PNNL-AGG-415
13966-28-4	Lead	3.57E0	ug/g dry	2.25E-1	2/15/11	1B15004	PNNL-AGG-415
HEIS No.	B27LP4	Lab ID: 1101001-05					
14092-98-9	Chromium	1.87E1	ug/g dry	8.06E-1	2/15/11	1B15004	PNNL-AGG-415
7440-38-2	Arsenic	4.81E0	ug/g dry	3.51E-1	2/15/11	1B15004	PNNL-AGG-415
14687-58-2	Selenium	<6.78E-1	ug/g dry	6.78E-1	2/15/11	1B15004	PNNL-AGG-415
14378-37-1	Silver	7.84E-2	ug/g dry	2.19E-2	2/15/11	1B15004	PNNL-AGG-415
14336-64-2	Cadmium	7.96E-2	ug/g dry	5.79E-2	2/15/11	1B15004	PNNL-AGG-415
13966-28-4	Lead	8.58E0	ug/g dry	2.20E-1	2/15/11	1B15004	PNNL-AGG-415
HEIS No.	B27LP7	Lab ID: 1101001-06					
14092-98-9	Chromium	2.69E1	ug/g dry	1.04E0	2/15/11	1B15004	PNNL-AGG-415
7440-38-2	Arsenic	2.54E0	ug/g dry	4.54E-1	2/15/11	1B15004	PNNL-AGG-415
14687-58-2	Selenium	<8.79E-1	ug/g dry	8.79E-1	2/15/11	1B15004	PNNL-AGG-415
14378-37-1	Silver	9.40E-2	ug/g dry	2.84E-2	2/15/11	1B15004	PNNL-AGG-415
14336-64-2	Cadmium	2.17E-1	ug/g dry	7.50E-2	2/15/11	1B15004	PNNL-AGG-415
13966-28-4	Lead	7.19E0	ug/g dry	2.84E-1	2/15/11	1B15004	PNNL-AGG-415
HEIS No.	B27LP8	Lab ID: 1101001-07					
14092-98-9	Chromium	1.14E1	ug/g dry	8.11E-1	2/15/11	1B15004	PNNL-AGG-415
7440-38-2	Arsenic	2.23E0	ug/g dry	3.53E-1	2/15/11	1B15004	PNNL-AGG-415
14687-58-2	Selenium	<6.83E-1	ug/g dry	6.83E-1	2/15/11	1B15004	PNNL-AGG-415
14378-37-1	Silver	5.47E-2	ug/g dry	2.21E-2	2/15/11	1B15004	PNNL-AGG-415
14336-64-2	Cadmium	1.02E-1	ug/g dry	5.83E-2	2/15/11	1B15004	PNNL-AGG-415
13966-28-4	Lead	7.30E-1	ug/g dry	2.21E-1	2/15/11	1B15004	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B28FL5	Lab ID: 1101001-08					
14092-98-9	Chromium	1.32E1	ug/g dry	7.66E-1	2/15/11	1B15004	PNNL-AGG-415
7440-38-2	Arsenic	2.67E0	ug/g dry	3.33E-1	2/15/11	1B15004	PNNL-AGG-415
14687-58-2	Selenium	<6.45E-1	ug/g dry	6.45E-1	2/15/11	1B15004	PNNL-AGG-415
14378-37-1	Silver	5.18E-2	ug/g dry	2.09E-2	2/15/11	1B15004	PNNL-AGG-415
14336-64-2	Cadmium	<5.51E-2	ug/g dry	5.51E-2	2/15/11	1B15004	PNNL-AGG-415
13966-28-4	Lead	4.66E0	ug/g dry	2.09E-1	2/15/11	1B15004	PNNL-AGG-415
HEIS No.	B28FL7	Lab ID: 1101001-09					
14092-98-9	Chromium	1.28E1	ug/g dry	7.83E-1	2/15/11	1B15004	PNNL-AGG-415
7440-38-2	Arsenic	2.07E0	ug/g dry	3.41E-1	2/15/11	1B15004	PNNL-AGG-415
14687-58-2	Selenium	<6.59E-1	ug/g dry	6.59E-1	2/15/11	1B15004	PNNL-AGG-415
14378-37-1	Silver	3.59E-2	ug/g dry	2.13E-2	2/15/11	1B15004	PNNL-AGG-415
14336-64-2	Cadmium	<5.63E-2	ug/g dry	5.63E-2	2/15/11	1B15004	PNNL-AGG-415
13966-28-4	Lead	3.43E0	ug/g dry	2.13E-1	2/15/11	1B15004	PNNL-AGG-415
HEIS No.	B28FL8	Lab ID: 1101001-10					
14092-98-9	Chromium	1.03E1	ug/g dry	8.37E-1	2/15/11	1B15004	PNNL-AGG-415
7440-38-2	Arsenic	1.71E0	ug/g dry	3.64E-1	2/15/11	1B15004	PNNL-AGG-415
14687-58-2	Selenium	<7.04E-1	ug/g dry	7.04E-1	2/15/11	1B15004	PNNL-AGG-415
14378-37-1	Silver	4.46E-2	ug/g dry	2.28E-2	2/15/11	1B15004	PNNL-AGG-415
14336-64-2	Cadmium	8.46E-2	ug/g dry	6.02E-2	2/15/11	1B15004	PNNL-AGG-415
13966-28-4	Lead	3.09E0	ug/g dry	2.28E-1	2/15/11	1B15004	PNNL-AGG-415
HEIS No.	B28FL9	Lab ID: 1101001-11					
14092-98-9	Chromium	1.33E1	ug/g dry	7.99E-1	2/15/11	1B15004	PNNL-AGG-415
7440-38-2	Arsenic	4.57E0	ug/g dry	3.48E-1	2/15/11	1B15004	PNNL-AGG-415
14687-58-2	Selenium	<6.72E-1	ug/g dry	6.72E-1	2/15/11	1B15004	PNNL-AGG-415
14378-37-1	Silver	5.43E-2	ug/g dry	2.18E-2	2/15/11	1B15004	PNNL-AGG-415
14336-64-2	Cadmium	1.04E-1	ug/g dry	5.74E-2	2/15/11	1B15004	PNNL-AGG-415
13966-28-4	Lead	6.33E0	ug/g dry	2.18E-1	2/15/11	1B15004	PNNL-AGG-415

Equilibrium Kd 1:1 Calculations

1101001-01		B27HR3		1101001-02		B27HR5		1101001-03		B27HR7	
Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)
Arsenic	9.93E-02	Arsenic	8.56E-02	Arsenic	8.56E-02	Arsenic	8.56E-02	Arsenic	1.04E+00	Arsenic	1.04E+00
Barium	ND	Barium	ND	Barium	ND	Barium	ND	Barium	ND	Barium	ND
Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND
Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND
Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND
Lead	ND	Lead	ND	Lead	ND	Lead	ND	Lead	ND	Lead	ND
Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND
Silver	ND	Silver	ND	Silver	ND	Silver	ND	Silver	ND	Silver	ND

1101001-04		B27HR6		1101001-05		B27LP4		1101001-06		B27LP7	
Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)
Arsenic	1.80E-01	Arsenic	5.15E-01	Arsenic	5.15E-01	Arsenic	5.15E-01	Arsenic	5.03E-01	Arsenic	5.03E-01
Barium	ND	Barium	ND	Barium	ND	Barium	ND	Barium	ND	Barium	ND
Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND
Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND
Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND
Lead	ND	Lead	ND	Lead	ND	Lead	ND	Lead	ND	Lead	ND
Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND
Silver	ND	Silver	ND	Silver	ND	Silver	ND	Silver	ND	Silver	ND

1101001-07		B27LP8		1101001-08		B28FL5		1101001-09		B28FL7	
Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)
Arsenic	2.88E-01	Arsenic	2.47E-01	Arsenic	2.47E-01	Arsenic	2.47E-01	Arsenic	1.50E-01	Arsenic	1.50E-01
Barium	ND	Barium	ND	Barium	ND	Barium	ND	Barium	ND	Barium	ND
Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND
Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND
Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND
Lead	ND	Lead	ND	Lead	ND	Lead	ND	Lead	ND	Lead	ND
Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND
Silver	ND	Silver	ND	Silver	ND	Silver	ND	Silver	ND	Silver	ND

1101001-10		B28FL8		1101001-11		B28FL9	
Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)
Arsenic	2.55E-01	Arsenic	7.17E-01	Arsenic	7.17E-01	Arsenic	7.17E-01
Barium	ND	Barium	ND	Barium	ND	Barium	ND
Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND
Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND
Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND
Lead	ND	Lead	ND	Lead	ND	Lead	ND
Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND
Silver	ND	Silver	ND	Silver	ND	Silver	ND

Equilibrium Kd 1:2.5 Calculations

1101001-01		B27HR3		1101001-02		B27HR5		1101001-03		B27HR7	
Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)
Arsenic	1.29E-01	Arsenic	1.08E-01	Arsenic	1.08E-01	Arsenic	1.08E-01	Arsenic	1.25E+00	Arsenic	1.25E+00
Barium	ND	Barium	ND	Barium	ND	Barium	ND	Barium	ND	Barium	ND
Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND
Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND
Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND
Lead	ND	Lead	ND	Lead	ND	Lead	ND	Lead	ND	Lead	ND
Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND
Silver	ND	Silver	ND	Silver	ND	Silver	ND	Silver	ND	Silver	ND

1101001-04		B27HR6		1101001-05		B27LP4		1101001-06		B27LP7	
Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)
Arsenic	1.95E-01	Arsenic	5.41E-01	Arsenic	5.41E-01	Arsenic	5.41E-01	Arsenic	5.73E-01	Arsenic	5.73E-01
Barium	ND	Barium	ND	Barium	ND	Barium	ND	Barium	ND	Barium	ND
Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND
Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND
Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND
Lead	ND	Lead	ND	Lead	ND	Lead	ND	Lead	ND	Lead	ND
Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND
Silver	ND	Silver	ND	Silver	ND	Silver	ND	Silver	ND	Silver	ND

1101001-07		B27LP8		1101001-08		B28FL5		1101001-09		B28FL7	
Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)
Arsenic	3.23E-01	Arsenic	2.22E-01	Arsenic	2.22E-01	Arsenic	2.22E-01	Arsenic	1.98E-01	Arsenic	1.98E-01
Barium	ND	Barium	ND	Barium	ND	Barium	ND	Barium	ND	Barium	ND
Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND
Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND
Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND
Lead	ND	Lead	ND	Lead	ND	Lead	ND	Lead	ND	Lead	ND
Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND
Silver	ND	Silver	ND	Silver	ND	Silver	ND	Silver	ND	Silver	ND

1101001-10		B28FL8		1101001-11		B28FL9	
Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)
Arsenic	2.46E-01	Arsenic	7.22E-01	Arsenic	7.22E-01	Arsenic	7.22E-01
Barium	ND	Barium	ND	Barium	ND	Barium	ND
Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND
Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND
Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND
Lead	ND	Lead	ND	Lead	ND	Lead	ND
Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND
Silver	ND	Silver	ND	Silver	ND	Silver	ND

Equilibrium Kd 1:5 Calculations

1101001-01		B27HR3		1101001-02		B27HR5		1101001-03		B27HR7	
Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)
Arsenic	1.71E-01	Arsenic	1.50E-01	Arsenic	1.50E-01	Arsenic	1.50E-01	Arsenic	1.38E+00	Arsenic	1.38E+00
Barium	ND	Barium	ND	Barium	ND	Barium	ND	Barium	ND	Barium	ND
Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND
Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND
Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND
Lead	ND	Lead	ND	Lead	ND	Lead	ND	Lead	ND	Lead	ND
Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND
Silver	ND	Silver	ND	Silver	ND	Silver	ND	Silver	ND	Silver	ND

1101001-04		B27HR6		1101001-05		B27LP4		1101001-06		B27LP7	
Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)
Arsenic	2.29E-01	Arsenic	1.02	Arsenic	1.02	Arsenic	1.02	Arsenic	8.46E-01	Arsenic	8.46E-01
Barium	ND	Barium	ND	Barium	ND	Barium	ND	Barium	ND	Barium	ND
Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND
Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND
Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND
Lead	ND	Lead	1.39E+00	Lead	1.39E+00	Lead	1.39E+00	Lead	ND	Lead	ND
Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND
Silver	ND	Silver	ND	Silver	ND	Silver	ND	Silver	ND	Silver	ND

1101001-07		B27LP8		1101001-08		B28FL5		1101001-09		B28FL7	
Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)
Arsenic	4.46E-01	Arsenic	4.46E-01	Arsenic	2.81E-01	Arsenic	2.81E-01	Arsenic	1.90E-01	Arsenic	1.90E-01
Barium	ND	Barium	ND	Barium	ND	Barium	ND	Barium	ND	Barium	ND
Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND
Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND
Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND
Lead	ND	Lead	ND	Lead	ND	Lead	ND	Lead	ND	Lead	ND
Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND
Silver	ND	Silver	ND	Silver	ND	Silver	ND	Silver	ND	Silver	ND

1101001-10		B28FL8		1101001-11		B28FL9	
Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)
Arsenic	2.94E-01	Arsenic	2.94E-01	Arsenic	8.46E-01	Arsenic	8.46E-01
Barium	ND	Barium	ND	Barium	ND	Barium	ND
Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND
Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND	Chromium (Total)	ND
Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND	Chromium, Hexavalent	ND
Lead	ND	Lead	ND	Lead	ND	Lead	ND
Selenium	ND	Selenium	ND	Selenium	ND	Selenium	ND
Silver	ND	Silver	ND	Silver	ND	Silver	ND

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 1B23010 - Hexavalent Chromium Digest										
Blank (1B23010-BLK1)				Prepared & Analyzed: 02/22/11						
Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g wet							
LCS (1B23010-BS1)				Prepared & Analyzed: 02/22/11						
Chromium, Hexavalent	4.11E-1	N/A	ug/mL	5.01E-1		82.1	80-120			
LCS (1B23010-BS2)				Prepared & Analyzed: 02/22/11						
Chromium, Hexavalent	3.95E-1	5.00E-2	ug/g wet	5.01E-1		78.9	80-120			
Duplicate (1B23010-DUP1)				Source: 1101001-08			Prepared & Analyzed: 02/22/11			
Chromium, Hexavalent	<5.90E-1	5.90E-1	ug/g dry		ND				20	
Matrix Spike (1B23010-MS1)				Source: 1101001-04			Prepared & Analyzed: 02/22/11			
Chromium, Hexavalent	3.45E-1	6.24E-1	ug/g dry	5.00E-1	1.00E-3	68.7	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 1B17013 - 1:1 Water Extract (Cr6)										
Blank (1B17013-BLK1)					Prepared: 02/17/11 Analyzed: 02/18/11					
Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g wet							
LCS (1B17013-BS1)					Prepared: 02/17/11 Analyzed: 02/18/11					
Chromium, Hexavalent	4.75E-1	5.00E-2	ug/g wet	5.01E-1		94.9	70-130			
Duplicate (1B17013-DUP1)					Source: 1101001-08 Prepared: 02/17/11 Analyzed: 02/18/11					
Chromium, Hexavalent	<4.05E-2	4.05E-2	ug/g dry		ND				20	
Post Spike (1B17013-PS1)					Source: 1101001-04 Prepared: 02/17/11 Analyzed: 02/18/11					
Chromium, Hexavalent	4.26E-1	N/A	ug/mL	5.00E-1	1.40E-2	82.3	75-125			

Hexavalent Chromium/1:2.5 Water Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1B17012 - 1:2.5 Water Extract (Cr6)										
Blank (1B17012-BLK1)					Prepared: 02/17/11 Analyzed: 02/18/11					
Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g wet							
LCS (1B17012-BS1)					Prepared: 02/17/11 Analyzed: 02/18/11					
Chromium, Hexavalent	4.78E-1	5.00E-2	ug/g wet	5.01E-1		95.5	70-130			
Duplicate (1B17012-DUP1)					Source: 1101001-08 Prepared: 02/17/11 Analyzed: 02/18/11					
Chromium, Hexavalent	<1.16E-1	1.16E-1	ug/g dry		ND				20	
Post Spike (1B17012-PS1)					Source: 1101001-04 Prepared: 02/17/11 Analyzed: 02/18/11					
Chromium, Hexavalent	4.69E-1	N/A	ug/mL	5.00E-1	1.40E-2	90.9	75-125			

Hexavalent Chromium/1:5 Water Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1B17014 - 1:5 Water Extract (Cr6)										
Blank (1B17014-BLK1)					Prepared: 02/17/11 Analyzed: 02/18/11					
Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g wet							
LCS (1B17014-BS1)					Prepared: 02/17/11 Analyzed: 02/18/11					
Chromium, Hexavalent	4.81E-1	5.00E-2	ug/g wet	5.01E-1		96.1	70-130			
Duplicate (1B17014-DUP1)					Source: 1101001-08 Prepared: 02/17/11 Analyzed: 02/18/11					
Chromium, Hexavalent	<2.42E-1	2.42E-1	ug/g dry		ND				20	
Post Spike (1B17014-PS1)					Source: 1101001-04 Prepared: 02/17/11 Analyzed: 02/18/11					
Chromium, Hexavalent	4.86E-1	N/A	ug/mL	5.00E-1	1.10E-2	94.9	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 1B17009 - 1:1 Water Extract (ICP/ICPMS)										
Blank (1B17009-BLK1)					Prepared: 02/17/11		Analyzed: 02/21/11			
Barium	<8.25E-2	8.25E-2	ug/g wet							
LCS (1B17009-BS1)					Prepared: 02/17/11		Analyzed: 02/21/11			
Barium	4.45E0	8.25E-2	ug/g wet	5.00E0		89.0	80-120			
Duplicate (1B17009-DUP1)					Prepared: 02/17/11		Analyzed: 02/21/11			
		Source: 1101001-08								
Barium	<8.25E-2	8.25E-2	ug/g dry		ND				35	
Post Spike (1B17009-PS1)					Prepared: 02/17/11		Analyzed: 02/21/11			
		Source: 1101001-08								
Barium	2.40E2	N/A	ug/L	2.50E2	1.13E0	95.4	75-125			

Total Metals by PNNL-AGG-ICP-AES/1:2.5 Water Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1B17010 - 1:2.5 Water Extract (ICP/ICPMS)										
Blank (1B17010-BLK1)					Prepared: 02/17/11		Analyzed: 02/21/11			
Barium	<8.25E-2	8.25E-2	ug/g wet							
LCS (1B17010-BS1)					Prepared: 02/17/11		Analyzed: 02/21/11			
Barium	4.12E0	7.83E-2	ug/g wet	5.00E0		82.5	80-120			
Duplicate (1B17010-DUP1)					Prepared: 02/17/11		Analyzed: 02/21/11			
		Source: 1101001-08								
Barium	<2.06E-1	2.06E-1	ug/g dry		ND				35	
Post Spike (1B17010-PS1)					Prepared: 02/17/11		Analyzed: 02/21/11			
Barium	2.52E2	N/A	ug/L	2.50E2	2.31E-1	101	75-125			

Total Metals by PNNL-AGG-ICP-AES/1:5 Water Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1B17011 - 1:5 Water Extract (ICP/ICPMS)										
Blank (1B17011-BLK1)					Prepared: 02/17/11		Analyzed: 02/21/11			
Barium	<8.25E-2	8.25E-2	ug/g wet							
LCS (1B17011-BS1)					Prepared: 02/17/11		Analyzed: 02/21/11			
Barium	4.61E0	8.25E-2	ug/g wet	5.00E0		92.2	80-120			
Duplicate (1B17011-DUP1)					Prepared: 02/17/11		Analyzed: 02/21/11			
		Source: 1101001-08								
Barium	<4.15E-1	4.15E-1	ug/g dry		ND				35	
Post Spike (1B17011-PS1)					Prepared: 02/17/11		Analyzed: 02/21/11			
		Source: 1101001-08								
Barium	2.54E2	N/A	ug/L	2.50E2	1.50E-1	102	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 1B14001 - ASTM D 5198 (ICP/ICPMS)										
Blank (1B14001-BLK1)					Prepared: 02/09/11		Analyzed: 02/14/11			
Barium	<4.12E-1	4.12E-1	ug/g wet							
LCS (1B14001-BS1)					Prepared: 02/09/11		Analyzed: 02/14/11			
Barium	5.39E0	4.12E-2	ug/g wet	5.77E0		93.5	80-120			
Duplicate (1B14001-DUP1)					Prepared: 02/09/11		Analyzed: 02/14/11			
		Source: 1101001-08								
Barium	4.44E1	1.73E0	ug/g dry		4.38E1			1.24	35	
Post Spike (1B14001-PS1)					Prepared & Analyzed: 02/14/11					
Barium	4.66E2	N/A	ug/L	2.50E2	2.16E2	100	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 1B17004 - 1:1 Water Extract (ICP/ICPMS)

Blank (1B17004-BLK1)

Prepared & Analyzed: 02/17/11

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 (1B17004-BS1)

Prepared & Analyzed: 02/17/11

Chromium	4.84E0	3.44E-1	ug/g wet	5.00E0		96.9	80-120			
Arsenic	5.24E0	2.84E-1	"	5.00E0		105	80-120			
Selenium	4.99E0	7.92E-1	"	5.00E0		99.9	80-120			
Silver	4.90E0	3.13E-1	"	5.00E0		98.1	80-120			
Cadmium	4.78E0	5.73E-2	"	5.00E0		95.7	80-120			
Lead	4.85E0	1.16E-1	"	5.00E0		97.2	80-120			

Duplicate (1B17004-DUP1)

Source: 1101001-08

Prepared & Analyzed: 02/17/11

Chromium	<3.44E-3	3.44E-3	ug/g dry		ND					35
Arsenic	1.01E-2	2.83E-3	"		1.08E-2			6.11		35
Selenium	<7.91E-3	7.91E-3	"		ND					35
Silver	<3.12E-3	3.12E-3	"		ND					35
Cadmium	<5.73E-4	5.73E-4	"		ND					35
Lead	<1.16E-3	1.16E-3	"		ND					35

Post Spike (1B17004-PS1)

Source: 1101001-11

Prepared & Analyzed: 02/17/11

Chromium	4.98E0	N/A	ug/L	5.00E0	4.68E-2	98.6	75-125			
Arsenic	6.25E0	N/A	"	5.00E0	1.27E0	99.5	75-125			
Selenium	5.39E0	N/A	"	5.00E0	ND	112	75-125			
Silver	4.87E0	N/A	"	5.00E0	ND	97.4	75-125			
Cadmium	4.99E0	N/A	"	5.00E0	ND	99.9	75-125			
Lead	4.93E0	N/A	"	5.00E0	1.79E-3	98.6	75-125			

RCRA Metals By PNNL-AGG-415/1:2.5 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 1B17005 - 1:2.5 Water Extract (ICP/ICPMS)

Blank (1B17005-BLK1)

Prepared & Analyzed: 02/17/11

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 (1B17005-BS1)

Prepared & Analyzed: 02/17/11

Chromium	4.42E0	3.27E-1	ug/g wet	5.00E0		88.4	80-120			
Arsenic	4.78E0	2.69E-1	"	5.00E0		95.8	80-120			
Selenium	4.68E0	7.51E-1	"	5.00E0		93.8	80-120			
Silver	4.28E0	2.97E-1	"	5.00E0		85.8	80-120			
Cadmium	4.24E0	5.44E-2	"	5.00E0		84.9	80-120			
Lead	4.20E0	1.10E-1	"	5.00E0		84.0	80-120			

Duplicate (1B17005-DUP1)

Source: 1101001-08

Prepared & Analyzed: 02/17/11

Chromium	<8.61E-3	8.61E-3	ug/g dry		ND					35
Arsenic	3.23E-2	7.09E-3	"		2.98E-2			8.04		35
Selenium	<1.98E-2	1.98E-2	"		ND					35
Silver	<7.82E-3	7.82E-3	"		ND					35
Cadmium	<1.43E-3	1.43E-3	"		ND					35
Lead	<2.91E-3	2.91E-3	"		ND					35

Post Spike (1B17005-PS1)

Source: 1101001-11

Prepared & Analyzed: 02/17/11

Chromium	5.01E0	N/A	ug/L	5.00E0	4.12E-2	99.5	75-125			
Arsenic	6.05E0	N/A	"	5.00E0	1.26E0	95.7	75-125			
Selenium	5.17E0	N/A	"	5.00E0	2.58E-1	98.3	75-125			
Silver	4.87E0	N/A	"	5.00E0	ND	97.4	75-125			
Cadmium	4.91E0	N/A	"	5.00E0	ND	98.4	75-125			
Lead	4.97E0	N/A	"	5.00E0	1.06E-2	99.2	75-125			

RCRA Metals By PNNL-AGG-415/1:5 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 1B17006 - 1:5 Water Extract (ICP/ICPMS)

Blank (1B17006-BLK1)

Prepared & Analyzed: 02/17/11

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 (1B17006-BS1)

Prepared & Analyzed: 02/17/11

Chromium	4.93E0	3.44E-1	ug/g wet	5.00E0		98.8	80-120			
Arsenic	4.72E0	2.84E-1	"	5.00E0		94.4	80-120			
Selenium	4.81E0	7.92E-1	"	5.00E0		96.4	80-120			
Silver	5.07E0	3.13E-1	"	5.00E0		102	80-120			
Cadmium	4.92E0	5.73E-2	"	5.00E0		98.5	80-120			
Lead	4.85E0	1.16E-1	"	5.00E0		97.2	80-120			

Duplicate (1B17006-DUP1)

Source: 1101001-08

Prepared & Analyzed: 02/17/11

Chromium	<1.73E-2	1.73E-2	ug/g dry		ND					35
Arsenic	5.11E-2	1.43E-2	"		4.67E-2			9.04		35
Selenium	<3.98E-2	3.98E-2	"		ND					35
Silver	<1.57E-2	1.57E-2	"		ND					35
Cadmium	<2.88E-3	2.88E-3	"		ND					35
Lead	<5.85E-3	5.85E-3	"		ND					35

Post Spike (1B17006-PS1)

Source: 1101001-11

Prepared & Analyzed: 02/17/11

Chromium	5.03E0	N/A	ug/L	5.00E0	1.48E-2	100	75-125			
Arsenic	5.85E0	N/A	"	5.00E0	1.07E0	95.4	75-125			
Selenium	5.08E0	N/A	"	5.00E0	1.95E-2	101	75-125			
Silver	5.01E0	N/A	"	5.00E0	6.97E-4	100	75-125			
Cadmium	5.01E0	N/A	"	5.00E0	ND	101	75-125			
Lead	4.97E0	N/A	"	5.00E0	2.12E-3	99.4	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 1B15004 - ASTM D 5198 (ICP/ICPMS)

Blank (1B15004-BLK1)

Prepared & Analyzed: 02/15/11

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 (1B15004-BS1)

Prepared & Analyzed: 02/15/11

Chromium	5.43E0	9.42E-1	ug/g wet	5.77E0		94.1	80-120			
Arsenic	5.41E0	4.10E-1	"	5.77E0		93.8	80-120			
Selenium	5.17E0	7.93E-1	"	5.77E0		89.7	80-120			
Silver	5.57E0	2.56E-2	"	5.77E0		96.6	80-120			
Cadmium	5.40E0	6.77E-2	"	5.77E0		93.6	80-120			
Lead	5.54E0	2.57E-1	"	5.77E0		96.0	80-120			

Duplicate (1B15004-DUP1)

Source: 1101001-08

Prepared & Analyzed: 02/15/11

Chromium	1.51E1	7.90E-1	ug/g dry		1.32E1			13.3	35	
Arsenic	2.35E0	3.44E-1	"		2.67E0			12.9	35	
Selenium	<6.65E-1	6.65E-1	"		ND				35	
Silver	5.88E-2	2.15E-2	"		5.18E-2			12.7	35	
Cadmium	<5.68E-2	5.68E-2	"		ND				35	
Lead	4.65E0	2.15E-1	"		4.66E0			0.173	35	

Post Spike (1B15004-PS1)


Source: 1101001-11

Prepared & Analyzed: 02/15/11

Chromium	3.54E1	N/A	ug/L	5.00E0	3.12E1	83.8	75-125			
Arsenic	1.49E1	N/A	"	5.00E0	1.08E1	83.1	75-125			
Selenium	4.65E0	N/A	"	5.00E0	4.32E-1	84.4	75-125			
Silver	4.58E0	N/A	"	5.00E0	1.28E-1	89	75-125			
Cadmium	4.97E0	N/A	"	5.00E0	2.46E-1	94.6	75-125			
Lead	1.89E1	N/A	"	5.00E0	1.49E1	79.9	75-125			

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-207-046	PAGE 1 OF 1
COLLECTOR D. L. Webb		COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR RADLOFF, AW	PRICE CODE 8N	Data Turnaround
SAMPLING LOCATION C7695 (199-K-195); I-048		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-KR-4 Soils		SAF NO. F10-207	AIR QUALITY <input type="checkbox"/>	30 Days/30 Days
ICE CHEST NO. N/A		FIELD LOGBOOK NO. HNFN-583-3/24	ACTUAL SAMPLE DEPTH 178.6' - 181.1'	COA 300082ES10	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	Split Spoon Liner	
		NO. OF CONTAINER(S)	1	
		VOLUME	1000g	
		SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	KD - Batch;
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B27HR3	SOIL	12-16-10	1340	X


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 #13569 
D. Webb	12-16-10/1600	MC 413 SSU-R1	12-16-10/1600	
MO-413 SSU-R1	Dec 17 2010 0700	T.A. Wallace	DEC 17 2010 0700	
T.A. Wallace	DEC 17 2010 1300	Igor Kudryakov	DEC 17 2010 1300	

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

SDG# ESLO90021

CH2Mhill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-207-052	PAGE 1 OF 1
COLLECTOR <i>D. L. Webb</i>	COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR RADLOFF, AW		PRICE CODE 8N	Data Turnaround 30 Days/30 Days
SAMPLING LOCATION C7695 (199-K-195); I-049	PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-KR-4 Soils		SAF NO. F10-207	AIR QUALITY <input type="checkbox"/>		
ICE CHEST NO. <i>N/A</i>	FIELD LOGBOOK NO. <i>HNFV-583-3/24</i>	ACTUAL SAMPLE DEPTH <i>180.0' - 182.5'</i>	COA 300082ES10	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	Split Spoon Liner	
		NO. OF CONTAINER(S)	1	
		VOLUME	1000g	
		SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	KD - Batch;
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B27HR5	SOIL	12-16-10	1450	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM <i>D. Webb</i>	DATE/TIME <i>12-16-10 1600</i>	RECEIVED BY/STORED IN <i>MO 413 SSU-R1</i>	DATE/TIME <i>12-16-10 1600</i>	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. <i>BRM # 13564</i>  ORIGINAL
RELINQUISHED BY/REMOVED FROM MO-413 SSU-R*	DATE/TIME <i>DEC 17 2010 0700</i>	RECEIVED BY/STORED IN T.A. Wallace	DATE/TIME <i>DEC 17 2010 0700</i>	
RELINQUISHED BY/REMOVED FROM T.A. Wallace	DATE/TIME <i>DEC 17 2010 1300</i>	RECEIVED BY/STORED IN Igor Kudnyakov	DATE/TIME <i>DEC 17 2010 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	
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			F10-207-056	PAGE 1 OF 1
COLLECTOR <i>Webb, Emerson</i>		COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR RADLOFF, AW	PRICE CODE 8N	DATA
SAMPLING LOCATION C7695 (199-K-195); I-051		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-KR-4 Soils		SAF NO. F10-207	AIR QUALITY <input type="checkbox"/>	Data Turnaround 30 Days/30 Days
ICE CHEST NO. <i>10 12/21/20</i> <i>Free</i>		FIELD LOGBOOK NO. <i>HNF-N-583-3 / 26</i>	ACTUAL SAMPLE DEPTH <i>228.0' - 230.5'</i>	COA 300082ES10	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	Split Spoon Liner	
		NO. OF CONTAINER(S)	1	
		VOLUME	1000g	
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	KD - Batch;	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B27HR7	SOIL	12/21/10	1405	✓


CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM <i>Adam Emerson</i>	DATE/TIME 12/27/10 1545	RECEIVED BY/STORED IN MO-413 SSU-R1	DATE/TIME 12/27/10 1545	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. BRM # 13564 ORIGINAL
RELINQUISHED BY/REMOVED FROM SSU R1	DATE/TIME 1-3-11 1055	RECEIVED BY/STORED IN <i>Pablo</i>	DATE/TIME 1-3-11 1055	
RELINQUISHED BY/REMOVED FROM <i>Pablo</i>	DATE/TIME 1-3-11 1420	RECEIVED BY/STORED IN <i>Igor Kudryakov</i>	DATE/TIME 1-3-11 1420	
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# ESL090021

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-207-054	PAGE 1 OF 1
COLLECTOR D. WEBB		COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR RADLOFF, AW	PRICE CODE 8N	Data Turnaround 30 Days/30 Days
SAMPLING LOCATION C7695 (199-K-195); I-050		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-KR-4 Soils		SAF NO. F10-207	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.		FIELD LOGBOOK NO. HNFN-583-3/25	ACTUAL SAMPLE DEPTH 203.0' - 205.5'	COA 300082ES10	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	Split Spoon Liner	
		NO. OF CONTAINER(S)	1	
		VOLUME	1000g	
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	KD - Batch;	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B27HR6	SOIL	12-21-10	1315	X


CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM D. Webb	DATE/TIME 12-21-10/1450	RECEIVED BY/STORED IN NO 413 SS4-R4	DATE/TIME 12-21-10/1450	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. BRM# 13564  ORIGINAL	
RELINQUISHED BY/REMOVED FROM SS4-R4	DATE/TIME 1-5-11 1300	RECEIVED BY/STORED IN MAWA MALDIA	DATE/TIME 1-5-11 1300		
RELINQUISHED BY/REMOVED FROM MAWA MALDIA	DATE/TIME 1-5-11 14:00	RECEIVED BY/STORED IN Angar Kutnyakov	DATE/TIME 1-5-11 1400		
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# ESLO90021

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-207-067	PAGE 1 OF 1
COLLECTOR <i>Bates, Young</i>		COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N	DATA TURNAROUND <i>15.45 Days / 15.15 Days</i>
SAMPLING LOCATION C7684 (199-K-184); I-042		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-KR-4 Soils		SAF NO. F10-207	AIR QUALITY <input type="checkbox"/>	<i>KS 1/17/11</i>
ICE CHEST NO. <i>N/A</i>		FIELD LOGBOOK NO. <i>HAF-543-3 page 50</i>	ACTUAL SAMPLE DEPTH <i>163" 0"</i>	COA 300082ES10	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	Split Spoon Liner	
		NO. OF CONTAINER(S)	1	
		VOLUME	1000g	
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	KD - Batch;	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B27LP4	SOIL	1-22-11	0730	<i>✓</i>


CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM <i>David Taylor</i>	DATE/TIME <i>1-22-11 1520</i>	RECEIVED BY/STORED IN SSU-R1	DATE/TIME <i>1/22/11 1520</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>JAN 24 2011 1100</i>	RECEIVED BY/STORED IN T.A. Wallace	DATE/TIME <i>JAN 24 2011 1100</i>		
RELINQUISHED BY/REMOVED FROM T.A. Wallace	DATE/TIME <i>13:30 JAN 24 2011</i>	RECEIVED BY/STORED IN CH2M	DATE/TIME <i>13:36 JAN 24 2011</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

SDG # ESL090021

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-207-070	PAGE 1 OF 1
COLLECTOR <i>Bates, Southern</i>	COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR RADLOFF, AW		PRICE CODE 8N	DATA TURNAROUND 15 Days / 15 Days VS 1/7/11
SAMPLING LOCATION C7684 (199-K-184); I-044	PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-KR-4 Soils		SAF NO. F10-207	AIR QUALITY <input type="checkbox"/>		
ICE CHEST NO. <i>N/A</i>	FIELD LOGBOOK NO. <i>HAF-N-583-3 page 53</i>	ACTUAL SAMPLE DEPTH <i>186'.9"</i>	COA 300082ES10	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	Split Spoon Liner	
		NO. OF CONTAINER(S)	1	
		VOLUME	1000g	
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	KD - Batch;	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B27LP7	SOIL	1-26-11	0915	—


CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM <i>Dale Bates</i>	DATE/TIME <i>1-26-11 1030</i>	RECEIVED BY/STORED IN <i>MCHB SSURL</i>	DATE/TIME <i>1-26-11 1030</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 <i>SSU-RI</i>	DATE/TIME <i>1/28/11 1200</i>	RECEIVED BY/STORED IN <i>Thomas Wallace</i>	DATE/TIME <i>1/28/11 1200</i>		
RELINQUISHED BY/REMOVED FROM <i>Thomas Wallace</i>	DATE/TIME <i>1/28/11 1300</i>	RECEIVED BY/STORED IN <i>Igor Kudryakov</i>	DATE/TIME <i>1-28-11 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		
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# ESL090021

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-207-071	PAGE 1 OF 1
COLLECTOR <i>Bates, Southern</i>		COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR RADLOFF, AW	PRICE CODE 8N	DATA TURNAROUND 15.25 Days / 15 Days <i>KS 1/17/11</i>
SAMPLING LOCATION C7684 (199-K-184); I-045		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-KR-4 Soils		SAF NO. F10-207	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. <i>N/A</i>		FIELD LOGBOOK NO. <i>HuF-N-583-3 page 54</i>	ACTUAL SAMPLE DEPTH <i>213.6"</i>	COA 300082ES10	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	Split Spoon Liner	
		NO. OF CONTAINER(S)	1	
		VOLUME	1000g	
		SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	KD - Batch;
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B27LP8	SOIL	<i>1-27-11</i>	<i>1440</i>	

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM <i>Dale Bates</i>	DATE/TIME <i>1-27-11 1550</i>	RECEIVED BY/STORED IN <i>M0413 SSURI</i>	DATE/TIME <i>1-27-11 1550</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 <i>SSU-R1</i>	DATE/TIME <i>1/28/11 1200</i>	RECEIVED BY/STORED IN <i>Thomas Walker Tank</i>	DATE/TIME <i>1/28/11 1200</i>		
RELINQUISHED BY/REMOVED FROM <i>Thomas Walker Tank</i>	DATE/TIME <i>1/28/11 1300</i>	RECEIVED BY/STORED IN <i>Igor Kudryakov</i>	DATE/TIME <i>1-28-11 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		
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			F10-207-079	PAGE 1 OF 1
COLLECTOR <i>Emerson</i>	COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR RADLOFF, AW		PRICE CODE 8N	Data Turnaround 15 30 Days / 30 Days -15 1/17/11
SAMPLING LOCATION C7688 (199-K-188); I-054	PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-KR-4 Soils		SAF NO. F10-207	AIR QUALITY <input type="checkbox"/>		
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N- 583-3/55	ACTUAL SAMPLE DEPTH 181.7-184.2 ft.	COA 300082ES10	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	Split Spoon Liner	
		NO. OF CONTAINER(S)	1	
		VOLUME	1000g	
		SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	KD - Batch;
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B28FL5	SOIL	1/28/11	1352	✓


CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM <i>Adam Emerson</i>	DATE/TIME 1/28/11 1510	RECEIVED BY/STORED IN MO413 SSUR1	DATE/TIME 1/28/11 1510	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. **HOLD SAMPLE** LABORATORY WILL BE CONTACTED REGARDING WHETHER TO ANALYZE. BRM # 13564
RELINQUISHED BY/REMOVED FROM MO-413 SSUR1	DATE/TIME FEB 01 2011 1000	RECEIVED BY/STORED IN M.A. White	DATE/TIME FEB 01 2011 1000	
RELINQUISHED BY/REMOVED FROM M.A. White	DATE/TIME FEB 01 2011 1325	RECEIVED BY/STORED IN I. Kutyavskiy	DATE/TIME FEB 01 2011 1325	
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

SDG# ESL090021


CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-207-081	PAGE 1 OF 1
COLLECTOR Farris, Bates		COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR RADLOFF, AW	PRICE CODE 8N Data Turnaround	
SAMPLING LOCATION C7688 (199-K-188); I-056		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-KR-4 Soils		SAF NO. F10-207	AIR QUALITY <input type="checkbox"/> 15, 20 Days / 20 Days 15	
ICE CHEST NO.		FIELD LOGBOOK NO. HNF-N-583-3 / 56	ACTUAL SAMPLE DEPTH 185.4' - 191.9'	COA 300082ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE KS 1/17/11	
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	Split Spoon Liner			
		NO. OF CONTAINER(S)	1			
		VOLUME	1000g			
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	KD - Batch;			
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B28FL7	SOIL	1-31-11	1125	✓		

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM Calvin Farris / Calvin Jones	DATE/TIME 1-31-11 10:00	RECEIVED BY/STORED IN MMD-413 SSU-R 1	DATE/TIME 1-31-11 1250	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.	
RELINQUISHED BY/REMOVED FROM MO-413 SSU-R1	DATE/TIME FEB 01 2011 1000	RECEIVED BY/STORED IN M. A. White / M. A. White	DATE/TIME FEB 01 2011 1000	**HOLD SAMPLE** LABORATORY WILL BE CONTACTED REGARDING WHETHER TO ANALYZE.	
RELINQUISHED BY/REMOVED FROM M. A. White / M. A. White	DATE/TIME FEB 01 2011 13 25	RECEIVED BY/STORED IN I. Kutnyakov / I. Kutnyakov	DATE/TIME FEB 01 2011 13 25	BRM # 13564	
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

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F10-207-082	PAGE 1 OF 1
COLLECTOR <i>Emerson</i>	COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR RADLOFF, AW	PRICE CODE 8N	Data Turnaround
SAMPLING LOCATION C7688 (199-K-188); I-057	PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-KR-4 Soils		SAF NO. F10-207	AIR QUALITY <input type="checkbox"/>	15 30 Days / 30 Days -FS
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-585-1/45	ACTUAL SAMPLE DEPTH 209.4 - 211.9 ft	COA 300082ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE VS 1/17	
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	Split Spoon Liner	
		NO. OF CONTAINER(S)	1	
		VOLUME	1000g	
		SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	KD - Batch;
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B28FL8	SOIL	2/3/11	1250	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM <i>Adam Emerson</i>	DATE/TIME 2/3/11/1400	RECEIVED BY/STORED IN MO413 SSUR	DATE/TIME 2/3/11/1400	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. **HOLD SAMPLE** LABORATORY WILL BE CONTACTED REGARDING WHETHER TO ANALYZE. BRM# 13564 
RELINQUISHED BY/REMOVED FROM MO-413 SSU-R1	DATE/TIME FEB 07 2011 1000	RECEIVED BY/STORED IN M. A. White	DATE/TIME FEB 07 2011 1000	
RELINQUISHED BY/REMOVED FROM M.A. White	DATE/TIME FEB 07 2011 1300	RECEIVED BY/STORED IN Igor Kutuzov	DATE/TIME FEB 07 2011 1300	
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# ESL090021

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-207-083	PAGE 1 OF 1
COLLECTOR <i>Emerson</i>	COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR RADLOFF, AW		PRICE CODE 8N	Data Turnaround
SAMPLING LOCATION C7688 (199-K-188); I-058	PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-KR-4 Soils		SAF NO. F10-207	AIR QUALITY <input type="checkbox"/>	15 30 Days / 30 Days 15	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-583-3/57	ACTUAL SAMPLE DEPTH 232.5 - 235 ft	COA 300082ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE 15 1/17/11		
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	Split Spoon Liner	
		NO. OF CONTAINER(S)	1	
		VOLUME	1000g	
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	KD - Batch;	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B28FL9	SOIL	2/4/11	1120	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM <i>Adam Emerson</i>	DATE/TIME 2/4/11 1230	RECEIVED BY/STORED IN MO-413 SSU-R1	DATE/TIME 2-4-11/1230	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.	
RELINQUISHED BY/REMOVED FROM MO-413 SSU-R1	DATE/TIME FEB 07 2011 1000	RECEIVED BY/STORED IN M. A. White	DATE/TIME FEB 07 2011 1000	**HOLD SAMPLE** LABORATORY WILL BE CONTACTED REGARDING WHETHER TO ANALYZE.	
RELINQUISHED BY/REMOVED FROM M. A. White	DATE/TIME FEB 07 2011 13 00	RECEIVED BY/STORED IN <i>Igor Kudnyakov</i>	DATE/TIME FEB 07 2011 13 00	BRM # 13564	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	ORIGINAL	
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