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Report for Batch Leach Analyses on Sediments at 100-FR-3 Operable Unit, Boreholes C7790, C7791, and C7792

Michael Lindberg

March 2011



Pacific Northwest
NATIONAL LABORATORY

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M Lindberg

March 2011

Prepared for the U.S. Department of Energy
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Pacific Northwest National Laboratory
Richland, Washington 99352

03/28/11 14:53

To: Anna Radloff

From: Michael J. Lindberg

A handwritten signature in black ink, appearing to read 'MJL', is positioned below the name 'Michael J. Lindberg'.

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

Subject: Analytical Data Report for Sediment Samples Collected From 100-FR-3 Operable Unit, Sample Delivery Group ESL090018, SAF Number F10-234

This letter contains the following information for sample delivery group ESL090018

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

Introduction

Between August 15, 2010 and December 2, 2010 sediment samples were received from the 100-FR-3 Operable Unit for geochemical studies.

Analytical Results/Methodology

The analyses for this project were performed at the 325 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):

Duplicate RPD for Arsenic (55.5%) was above the acceptance limit (35) in 0J11001-DUP1 for ICPMS-RCRA-AE
Duplicate failure may be due to sample heterogeneity. All other duplicates and QC associated with the batch were in limits. There should be no impact to sample data as reported.

Duplicate RPD for Chromium (63.6%) was above the acceptance limit (35) in 0J11001-DUP1 for ICPMS-RCRA-AE
Duplicate failure may be due to sample heterogeneity. All other duplicates and QC associated with the batch were in limits. There should be no impact to sample data as reported.

Duplicate RPD for Lead (50.3%) was above the acceptance limit (35) in 0J11001-DUP2 for ICPMS-RCRA-AE
Duplicate failure may be due to sample heterogeneity. All other duplicates and QC associated with the batch were in limits. There should be no impact to sample data as reported.

Duplicate RPD for Barium (50.1%) was above the acceptance limit (35) in 0J14004-DUP1 for ICP-OES Vadose-AE
Duplicate failure may be due to sample heterogeneity. All other duplicates and QC associated with the batch were in limits. There should be no impact to sample data as reported.

Laboratory Control Samples (LCS):

No discrepancies noted.

Post Spike (PS):

Post-Spike Recovery for Chromium, Hexavalent (153%) was outside acceptance limits (75-125) in 0J15001-PS1 for Hexavalent Chromium/WE 1:5

The high recovery for the post spike is due to a preparation error. Sample results associated with this batch are below the EQL and all other batch QC was in limits. There should be no impact to the data as reported.

Matrix Spike (MS):

No discrepancies noted.

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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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
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
Moisture Content
Strontium 90 Acid Extract by LSC
Strontium 90 1:2.5 DI Water Extract by LSC
Strontium 90 1:5 DI Water Extract by LSC
Strontium 90 Water Extract by LSC

SAMPLES ANALYZED IN THIS REPORT

HEIS No.	Laboratory ID	Matrix	Date Collected	Date Received
B274K7	1009008-01	SOIL	9/1/10 10:26	9/1/10 15:00
B273B8	1009008-02	SOIL	8/30/10 12:16	9/1/10 15:00
B27PY0	1009008-03	SOIL	8/31/10 08:57	9/1/10 15:00
B274K6	1009008-04	SOIL	8/26/10 14:00	8/30/10 14:00
B26TC1	1009008-05	SOIL	8/13/10 12:25	8/15/10 14:45
B26TC2	1009008-06	SOIL	8/16/10 10:00	8/15/10 14:45
B273B2	1009008-07	SOIL	11/11/10 08:50	11/16/10 08:40
B273B3	1009008-08	SOIL	11/15/10 08:30	11/16/10 08:40
B273B4	1009008-09	SOIL	11/15/10 08:30	11/16/10 08:40
B273B6	1009008-10	SOIL	11/29/10 09:50	12/2/10 09:05
B273B5	1009008-11	SOIL	11/22/10 11:10	12/2/10 09:05

Wet Chemistry

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1009008-01	B274K7	3.51E1	N/A	10/05/10	0I29004
1009008-02	B273B8	2.19E1	N/A	10/05/10	0I29004
1009008-03	B27PY0	1.39E1	N/A	10/05/10	0I29004
1009008-04	B274K6	2.36E1	N/A	10/05/10	0I29004
1009008-05	B26TC1	1.12E1	N/A	10/05/10	0I29004
1009008-06	B26TC2	2.49E1	N/A	10/05/10	0I29004
1009008-07	B273B2	4.73E0	N/A	12/30/10	0L27001
1009008-08	B273B3	1.97E1	N/A	12/30/10	0L27001
1009008-09	B273B4	1.15E1	N/A	12/30/10	0L27001
1009008-10	B273B6	3.81E1	N/A	12/30/10	0L27001
1009008-11	B273B5	3.08E1	N/A	12/30/10	0L27001

Hexavalent Chromium/Soil

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1009008-01	B274K7	<6.72E-1	6.72E-1	10/14/10	OJ14008
1009008-02	B273B8	<5.92E-1	5.92E-1	10/14/10	OJ14008
1009008-03	B27PY0	<5.27E-1	5.27E-1	10/14/10	OJ14008
1009008-04	B274K6	<6.11E-1	6.11E-1	10/14/10	OJ14008
1009008-05	B26TC1	<5.25E-1	5.25E-1	10/14/10	OJ14008
1009008-06	B26TC2	<5.76E-1	5.76E-1	10/14/10	OJ14008
1009008-07	B273B2	<5.22E-1	5.22E-1	1/13/11	1A14001
1009008-08	B273B3	<5.98E-1	5.98E-1	1/13/11	1A14001
1009008-09	B273B4	<5.55E-1	5.55E-1	1/13/11	1A14001
1009008-10	B273B6	<6.93E-1	6.93E-1	1/13/11	1A14001
1009008-11	B273B5	<6.54E-1	6.54E-1	1/13/11	1A14001

Hexavalent Chromium/1:1 Water Extract

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1009008-01	B274K7	<2.94E-2	2.94E-2	10/11/10	OJ11006
1009008-02	B273B8	<3.90E-2	3.90E-2	10/11/10	OJ11006
1009008-03	B27PY0	<4.37E-2	4.37E-2	10/11/10	OJ11006
1009008-04	B274K6	<3.83E-2	3.83E-2	10/11/10	OJ11006
1009008-05	B26TC1	<4.45E-2	4.45E-2	10/11/10	OJ11006
1009008-06	B26TC2	<3.97E-2	3.97E-2	10/11/10	OJ11006
1009008-07	B273B2	<4.76E-2	4.76E-2	1/07/11	1A06002
1009008-08	B273B3	<4.02E-2	4.02E-2	1/07/11	1A06002
1009008-09	B273B4	<4.43E-2	4.43E-2	1/07/11	1A06002
1009008-10	B273B6	<3.06E-2	3.06E-2	1/07/11	1A06002
1009008-11	B273B5	<3.62E-2	3.62E-2	1/07/11	1A06002

Hexavalent Chromium/1:2.5 Water Extract

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1009008-01	B274K7	<1.02E-1	1.02E-1	12/02/10	0J12002
1009008-02	B273B8	<1.14E-1	1.14E-1	12/02/10	0J12002
1009008-03	B27PY0	<1.18E-1	1.18E-1	12/02/10	0J12002
1009008-04	B274K6	<1.22E-1	1.22E-1	12/02/10	0J12002
1009008-05	B26TC1	<1.19E-1	1.19E-1	12/02/10	0J12002
1009008-06	B26TC2	<1.12E-1	1.12E-1	12/02/10	0J12002
1009008-07	B273B2	<1.21E-1	1.21E-1	1/07/11	1A07001
1009008-08	B273B3	<1.14E-1	1.14E-1	1/07/11	1A07001
1009008-09	B273B4	<1.19E-1	1.19E-1	1/07/11	1A07001
1009008-10	B273B6	<1.06E-1	1.06E-1	1/07/11	1A07001
1009008-11	B273B5	<1.10E-1	1.10E-1	1/07/11	1A07001

Hexavalent Chromium/1:5 Water Extract

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1009008-01	B274K7	<2.22E-1	2.22E-1	12/02/10	0J15001
1009008-02	B273B8	<2.36E-1	2.36E-1	12/02/10	0J15001
1009008-03	B27PY0	<2.23E-1	2.23E-1	12/02/10	0J15001
1009008-04	B274K6	<2.38E-1	2.38E-1	12/02/10	0J15001
1009008-05	B26TC1	<2.40E-1	2.40E-1	12/02/10	0J15001
1009008-06	B26TC2	<2.37E-1	2.37E-1	12/02/10	0J15001
1009008-07	B273B2	<2.48E-1	2.48E-1	1/07/11	1A07002
1009008-08	B273B3	<2.37E-1	2.37E-1	1/07/11	1A07002
1009008-09	B273B4	<2.45E-1	2.45E-1	1/07/11	1A07002
1009008-10	B273B6	<2.30E-1	2.30E-1	1/07/11	1A07002
1009008-11	B273B5	<2.29E-1	2.29E-1	1/07/11	1A07002

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No. 7440-39-3	B274K7 Barium	Lab ID: 1009008-01					
		<1.16E-1	ug/g dry	1.16E-1	10/14/10	0J14005	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B8 Barium	Lab ID: 1009008-02					
		<1.24E-1	ug/g dry	1.24E-1	10/14/10	0J14005	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27PY0 Barium	Lab ID: 1009008-03					
		<1.25E-1	ug/g dry	1.25E-1	10/14/10	0J14005	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B274K6 Barium	Lab ID: 1009008-04					
		<1.24E-1	ug/g dry	1.24E-1	10/14/10	0J14005	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B26TC1 Barium	Lab ID: 1009008-05					
		<1.24E-1	ug/g dry	1.24E-1	10/14/10	0J14005	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B26TC2 Barium	Lab ID: 1009008-06					
		<1.29E-1	ug/g dry	1.29E-1	10/14/10	0J14005	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B2 Barium	Lab ID: 1009008-07					
		<8.25E-2	ug/g dry	8.25E-2	2/01/11	1A31003	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B3 Barium	Lab ID: 1009008-08					
		<8.26E-2	ug/g dry	8.26E-2	2/01/11	1A31003	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B4 Barium	Lab ID: 1009008-09					
		<8.26E-2	ug/g dry	8.26E-2	2/01/11	1A31003	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B6 Barium	Lab ID: 1009008-10					
		<8.20E-2	ug/g dry	8.20E-2	2/01/11	1A31003	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B5 Barium	Lab ID: 1009008-11					
		<8.52E-2	ug/g dry	8.52E-2	2/01/11	1A31003	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	B274K7 Barium	Lab ID: 1009008-01					
		<2.95E-1	ug/g dry	2.95E-1	12/02/10	0J14006	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B8 Barium	Lab ID: 1009008-02					
		<3.08E-1	ug/g dry	3.08E-1	12/02/10	0J14006	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27PY0 Barium	Lab ID: 1009008-03					
		<3.10E-1	ug/g dry	3.10E-1	12/02/10	0J14006	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B274K6 Barium	Lab ID: 1009008-04					
		<3.30E-1	ug/g dry	3.30E-1	12/02/10	0J14006	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B26TC1 Barium	Lab ID: 1009008-05					
		<3.08E-1	ug/g dry	3.08E-1	12/02/10	0J14006	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B26TC2 Barium	Lab ID: 1009008-06					
		<3.07E-1	ug/g dry	3.07E-1	12/02/10	0J14006	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B2 Barium	Lab ID: 1009008-07					
		<2.04E-1	ug/g dry	2.04E-1	2/01/11	1A31004	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B3 Barium	Lab ID: 1009008-08					
		<2.05E-1	ug/g dry	2.05E-1	2/01/11	1A31004	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B4 Barium	Lab ID: 1009008-09					
		<2.05E-1	ug/g dry	2.05E-1	2/01/11	1A31004	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B6 Barium	Lab ID: 1009008-10					
		<2.06E-1	ug/g dry	2.06E-1	2/01/11	1A31004	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B5 Barium	Lab ID: 1009008-11					
		<2.06E-1	ug/g dry	2.06E-1	2/01/11	1A31004	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	B274K7 Barium	Lab ID: 1009008-01 <5.94E-1	ug/g dry	5.94E-1	12/02/10	0J14007	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B8 Barium	Lab ID: 1009008-02 <6.13E-1	ug/g dry	6.13E-1	12/02/10	0J14007	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27PY0 Barium	Lab ID: 1009008-03 <5.69E-1	ug/g dry	5.69E-1	12/02/10	0J14007	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B274K6 Barium	Lab ID: 1009008-04 <6.18E-1	ug/g dry	6.18E-1	12/02/10	0J14007	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B26TC1 Barium	Lab ID: 1009008-05 <6.09E-1	ug/g dry	6.09E-1	12/02/10	0J14007	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B26TC2 Barium	Lab ID: 1009008-06 <6.17E-1	ug/g dry	6.17E-1	12/02/10	0J14007	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B2 Barium	Lab ID: 1009008-07 <4.12E-1	ug/g dry	4.12E-1	2/01/11	1A31005	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B3 Barium	Lab ID: 1009008-08 <4.07E-1	ug/g dry	4.07E-1	2/01/11	1A31005	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B4 Barium	Lab ID: 1009008-09 <4.14E-1	ug/g dry	4.14E-1	2/01/11	1A31005	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B6 Barium	Lab ID: 1009008-10 <4.11E-1	ug/g dry	4.11E-1	2/01/11	1A31005	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B5 Barium	Lab ID: 1009008-11 <4.03E-1	ug/g dry	4.03E-1	2/01/11	1A31005	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	B274K7 Barium	Lab ID: 1009008-01 3.12E1	ug/g dry 1.91E0		10/15/10	0J14004	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B8 Barium	Lab ID: 1009008-02 2.54E1	ug/g dry 1.71E0		10/15/10	0J14004	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B27PY0 Barium	Lab ID: 1009008-03 3.33E1	ug/g dry 1.59E0		10/15/10	0J14004	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B274K6 Barium	Lab ID: 1009008-04 2.18E1	ug/g dry 1.72E0		10/15/10	0J14004	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B26TC1 Barium	Lab ID: 1009008-05 2.96E1	ug/g dry 1.55E0		10/15/10	0J14004	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B26TC2 Barium	Lab ID: 1009008-06 1.12E2	ug/g dry 1.72E0		10/15/10	0J14004	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B2 Barium	Lab ID: 1009008-07 6.53E1	ug/g dry 1.49E0		2/02/11	1B02001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B3 Barium	Lab ID: 1009008-08 5.15E1	ug/g dry 1.70E0		2/02/11	1B02001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B4 Barium	Lab ID: 1009008-09 6.17E1	ug/g dry 1.60E0		2/02/11	1B02001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B6 Barium	Lab ID: 1009008-10 1.36E3	ug/g dry 1.96E0		2/02/11	1B02001	PNNL-AGG-ICP-AES
HEIS No. 7440-39-3	B273B5 Barium	Lab ID: 1009008-11 1.03E2	ug/g dry 1.85E0		2/02/11	1B02001	PNNL-AGG-ICP-AES

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B274K7	Lab ID: 1009008-01					
14092-98-9	Chromium	<3.23E-3	ug/g dry	3.23E-3	10/11/10	0J11002	PNNL-AGG-415
7440-38-2	Arsenic	9.25E-3	ug/g dry	2.66E-3	10/11/10	0J11002	PNNL-AGG-415
14687-58-2	Selenium	1.83E-2	ug/g dry	7.43E-3	10/11/10	0J11002	PNNL-AGG-415
14378-37-1	Silver	<2.94E-3	ug/g dry	2.94E-3	10/11/10	0J11002	PNNL-AGG-415
14336-64-2	Cadmium	<5.38E-4	ug/g dry	5.38E-4	10/11/10	0J11002	PNNL-AGG-415
13966-28-4	Lead	<1.09E-3	ug/g dry	1.09E-3	10/11/10	0J11002	PNNL-AGG-415
HEIS No.	B273B8	Lab ID: 1009008-02					
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	10/11/10	0J11002	PNNL-AGG-415
7440-38-2	Arsenic	<2.83E-3	ug/g dry	2.83E-3	10/11/10	0J11002	PNNL-AGG-415
14687-58-2	Selenium	<7.90E-3	ug/g dry	7.90E-3	10/11/10	0J11002	PNNL-AGG-415
14378-37-1	Silver	<3.12E-3	ug/g dry	3.12E-3	10/11/10	0J11002	PNNL-AGG-415
14336-64-2	Cadmium	<5.72E-4	ug/g dry	5.72E-4	10/11/10	0J11002	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	10/11/10	0J11002	PNNL-AGG-415
HEIS No.	B27PY0	Lab ID: 1009008-03					
14092-98-9	Chromium	<3.49E-3	ug/g dry	3.49E-3	10/11/10	0J11002	PNNL-AGG-415
7440-38-2	Arsenic	<2.87E-3	ug/g dry	2.87E-3	10/11/10	0J11002	PNNL-AGG-415
14687-58-2	Selenium	<8.02E-3	ug/g dry	8.02E-3	10/11/10	0J11002	PNNL-AGG-415
14378-37-1	Silver	<3.17E-3	ug/g dry	3.17E-3	10/11/10	0J11002	PNNL-AGG-415
14336-64-2	Cadmium	<5.81E-4	ug/g dry	5.81E-4	10/11/10	0J11002	PNNL-AGG-415
13966-28-4	Lead	<1.18E-3	ug/g dry	1.18E-3	10/11/10	0J11002	PNNL-AGG-415
HEIS No.	B274K6	Lab ID: 1009008-04					
14092-98-9	Chromium	<3.46E-3	ug/g dry	3.46E-3	10/11/10	0J11002	PNNL-AGG-415
7440-38-2	Arsenic	<2.84E-3	ug/g dry	2.84E-3	10/11/10	0J11002	PNNL-AGG-415
14687-58-2	Selenium	<7.94E-3	ug/g dry	7.94E-3	10/11/10	0J11002	PNNL-AGG-415
14378-37-1	Silver	<3.14E-3	ug/g dry	3.14E-3	10/11/10	0J11002	PNNL-AGG-415
14336-64-2	Cadmium	<5.75E-4	ug/g dry	5.75E-4	10/11/10	0J11002	PNNL-AGG-415
13966-28-4	Lead	<1.17E-3	ug/g dry	1.17E-3	10/11/10	0J11002	PNNL-AGG-415
HEIS No.	B26TC1	Lab ID: 1009008-05					
14092-98-9	Chromium	<3.45E-3	ug/g dry	3.45E-3	10/11/10	0J11002	PNNL-AGG-415
7440-38-2	Arsenic	<2.84E-3	ug/g dry	2.84E-3	10/11/10	0J11002	PNNL-AGG-415
14687-58-2	Selenium	<7.92E-3	ug/g dry	7.92E-3	10/11/10	0J11002	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	10/11/10	0J11002	PNNL-AGG-415
14336-64-2	Cadmium	<5.74E-4	ug/g dry	5.74E-4	10/11/10	0J11002	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	10/11/10	0J11002	PNNL-AGG-415
HEIS No.	B26TC2	Lab ID: 1009008-06					
14092-98-9	Chromium	<3.59E-3	ug/g dry	3.59E-3	10/11/10	0J11002	PNNL-AGG-415
7440-38-2	Arsenic	8.86E-3	ug/g dry	2.96E-3	10/11/10	0J11002	PNNL-AGG-415
14687-58-2	Selenium	<8.25E-3	ug/g dry	8.25E-3	10/11/10	0J11002	PNNL-AGG-415
14378-37-1	Silver	<3.26E-3	ug/g dry	3.26E-3	10/11/10	0J11002	PNNL-AGG-415
14336-64-2	Cadmium	<5.97E-4	ug/g dry	5.97E-4	10/11/10	0J11002	PNNL-AGG-415
13966-28-4	Lead	<1.21E-3	ug/g dry	1.21E-3	10/11/10	0J11002	PNNL-AGG-415
HEIS No.	B273B2	Lab ID: 1009008-07					
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	1/17/11	1A17001	PNNL-AGG-415
7440-38-2	Arsenic	2.15E-2	ug/g dry	1.42E-2	1/21/11	1A17001	PNNL-AGG-415
14687-58-2	Selenium	<7.91E-3	ug/g dry	7.91E-3	1/17/11	1A17001	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	1/17/11	1A17001	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	1/17/11	1A17001	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	1/17/11	1A17001	PNNL-AGG-415

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B273B3	Lab ID: 1009008-08					
14092-98-9	Chromium	<3.45E-3	ug/g dry	3.45E-3	1/17/11	1A17001	PNNL-AGG-415
7440-38-2	Arsenic	<1.42E-2	ug/g dry	1.42E-2	1/21/11	1A17001	PNNL-AGG-415
14687-58-2	Selenium	<7.92E-3	ug/g dry	7.92E-3	1/17/11	1A17001	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	1/17/11	1A17001	PNNL-AGG-415
14336-64-2	Cadmium	<5.74E-4	ug/g dry	5.74E-4	1/17/11	1A17001	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	1/17/11	1A17001	PNNL-AGG-415
HEIS No.	B273B4	Lab ID: 1009008-09					
14092-98-9	Chromium	<3.45E-3	ug/g dry	3.45E-3	1/17/11	1A17001	PNNL-AGG-415
7440-38-2	Arsenic	2.70E-2	ug/g dry	1.42E-2	1/21/11	1A17001	PNNL-AGG-415
14687-58-2	Selenium	<7.93E-3	ug/g dry	7.93E-3	1/17/11	1A17001	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	1/17/11	1A17001	PNNL-AGG-415
14336-64-2	Cadmium	<5.74E-4	ug/g dry	5.74E-4	1/17/11	1A17001	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	1/17/11	1A17001	PNNL-AGG-415
HEIS No.	B273B6	Lab ID: 1009008-10					
14092-98-9	Chromium	2.15E-2	ug/g dry	3.42E-3	1/17/11	1A17001	PNNL-AGG-415
7440-38-2	Arsenic	3.97E-2	ug/g dry	1.41E-2	1/21/11	1A17001	PNNL-AGG-415
14687-58-2	Selenium	<7.86E-3	ug/g dry	7.86E-3	1/17/11	1A17001	PNNL-AGG-415
14378-37-1	Silver	<3.11E-3	ug/g dry	3.11E-3	1/17/11	1A17001	PNNL-AGG-415
14336-64-2	Cadmium	<5.69E-4	ug/g dry	5.69E-4	1/17/11	1A17001	PNNL-AGG-415
13966-28-4	Lead	<1.15E-3	ug/g dry	1.15E-3	1/17/11	1A17001	PNNL-AGG-415
HEIS No.	B273B5	Lab ID: 1009008-11					
14092-98-9	Chromium	<3.55E-3	ug/g dry	3.55E-3	1/17/11	1A17001	PNNL-AGG-415
7440-38-2	Arsenic	1.89E-2	ug/g dry	1.46E-2	1/21/11	1A17001	PNNL-AGG-415
14687-58-2	Selenium	<8.17E-3	ug/g dry	8.17E-3	1/17/11	1A17001	PNNL-AGG-415
14378-37-1	Silver	<3.23E-3	ug/g dry	3.23E-3	1/17/11	1A17001	PNNL-AGG-415
14336-64-2	Cadmium	<5.91E-4	ug/g dry	5.91E-4	1/17/11	1A17001	PNNL-AGG-415
13966-28-4	Lead	<1.20E-3	ug/g dry	1.20E-3	1/17/11	1A17001	PNNL-AGG-415

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B274K7	Lab ID: 1009008-01					
14092-98-9	Chromium	<8.22E-3	ug/g dry	8.22E-3	12/06/10	0J11003	PNNL-AGG-415
7440-38-2	Arsenic	8.83E-3	ug/g dry	6.77E-3	12/06/10	0J11003	PNNL-AGG-415
14687-58-2	Selenium	<1.89E-2	ug/g dry	1.89E-2	12/06/10	0J11003	PNNL-AGG-415
14378-37-1	Silver	<7.47E-3	ug/g dry	7.47E-3	12/06/10	0J11003	PNNL-AGG-415
14336-64-2	Cadmium	<1.37E-3	ug/g dry	1.37E-3	12/06/10	0J11003	PNNL-AGG-415
13966-28-4	Lead	<2.77E-3	ug/g dry	2.77E-3	12/06/10	0J11003	PNNL-AGG-415
HEIS No.	B273B8	Lab ID: 1009008-02					
14092-98-9	Chromium	<8.58E-3	ug/g dry	8.58E-3	12/06/10	0J11003	PNNL-AGG-415
7440-38-2	Arsenic	<7.07E-3	ug/g dry	7.07E-3	12/06/10	0J11003	PNNL-AGG-415
14687-58-2	Selenium	<1.97E-2	ug/g dry	1.97E-2	12/06/10	0J11003	PNNL-AGG-415
14378-37-1	Silver	<7.79E-3	ug/g dry	7.79E-3	12/06/10	0J11003	PNNL-AGG-415
14336-64-2	Cadmium	<1.43E-3	ug/g dry	1.43E-3	12/06/10	0J11003	PNNL-AGG-415
13966-28-4	Lead	<2.90E-3	ug/g dry	2.90E-3	12/06/10	0J11003	PNNL-AGG-415
HEIS No.	B27PY0	Lab ID: 1009008-03					
14092-98-9	Chromium	<8.62E-3	ug/g dry	8.62E-3	12/06/10	0J11003	PNNL-AGG-415
7440-38-2	Arsenic	<7.09E-3	ug/g dry	7.09E-3	12/06/10	0J11003	PNNL-AGG-415
14687-58-2	Selenium	<1.98E-2	ug/g dry	1.98E-2	12/06/10	0J11003	PNNL-AGG-415
14378-37-1	Silver	<7.82E-3	ug/g dry	7.82E-3	12/06/10	0J11003	PNNL-AGG-415
14336-64-2	Cadmium	<1.43E-3	ug/g dry	1.43E-3	12/06/10	0J11003	PNNL-AGG-415
13966-28-4	Lead	<2.91E-3	ug/g dry	2.91E-3	12/06/10	0J11003	PNNL-AGG-415
HEIS No.	B274K6	Lab ID: 1009008-04					
14092-98-9	Chromium	<9.20E-3	ug/g dry	9.20E-3	12/06/10	0J11003	PNNL-AGG-415
7440-38-2	Arsenic	<7.57E-3	ug/g dry	7.57E-3	12/06/10	0J11003	PNNL-AGG-415
14687-58-2	Selenium	<2.11E-2	ug/g dry	2.11E-2	12/06/10	0J11003	PNNL-AGG-415
14378-37-1	Silver	<8.35E-3	ug/g dry	8.35E-3	12/06/10	0J11003	PNNL-AGG-415
14336-64-2	Cadmium	<1.53E-3	ug/g dry	1.53E-3	12/06/10	0J11003	PNNL-AGG-415
13966-28-4	Lead	<3.10E-3	ug/g dry	3.10E-3	12/06/10	0J11003	PNNL-AGG-415
HEIS No.	B26TC1	Lab ID: 1009008-05					
14092-98-9	Chromium	<8.57E-3	ug/g dry	8.57E-3	12/06/10	0J11003	PNNL-AGG-415
7440-38-2	Arsenic	<7.06E-3	ug/g dry	7.06E-3	12/06/10	0J11003	PNNL-AGG-415
14687-58-2	Selenium	<1.97E-2	ug/g dry	1.97E-2	12/06/10	0J11003	PNNL-AGG-415
14378-37-1	Silver	<7.78E-3	ug/g dry	7.78E-3	12/06/10	0J11003	PNNL-AGG-415
14336-64-2	Cadmium	<1.43E-3	ug/g dry	1.43E-3	12/06/10	0J11003	PNNL-AGG-415
13966-28-4	Lead	<2.89E-3	ug/g dry	2.89E-3	12/06/10	0J11003	PNNL-AGG-415
HEIS No.	B26TC2	Lab ID: 1009008-06					
14092-98-9	Chromium	<8.55E-3	ug/g dry	8.55E-3	12/06/10	0J11003	PNNL-AGG-415
7440-38-2	Arsenic	1.28E-2	ug/g dry	7.04E-3	12/06/10	0J11003	PNNL-AGG-415
14687-58-2	Selenium	<1.97E-2	ug/g dry	1.97E-2	12/06/10	0J11003	PNNL-AGG-415
14378-37-1	Silver	<7.77E-3	ug/g dry	7.77E-3	12/06/10	0J11003	PNNL-AGG-415
14336-64-2	Cadmium	<1.42E-3	ug/g dry	1.42E-3	12/06/10	0J11003	PNNL-AGG-415
13966-28-4	Lead	<2.89E-3	ug/g dry	2.89E-3	12/06/10	0J11003	PNNL-AGG-415
HEIS No.	B273B2	Lab ID: 1009008-07					
14092-98-9	Chromium	<8.53E-3	ug/g dry	8.53E-3	1/17/11	1A17002	PNNL-AGG-415
7440-38-2	Arsenic	4.34E-2	ug/g dry	3.51E-2	1/21/11	1A17002	PNNL-AGG-415
14687-58-2	Selenium	<1.96E-2	ug/g dry	1.96E-2	1/17/11	1A17002	PNNL-AGG-415
14378-37-1	Silver	<7.74E-3	ug/g dry	7.74E-3	1/17/11	1A17002	PNNL-AGG-415
14336-64-2	Cadmium	<1.42E-3	ug/g dry	1.42E-3	1/17/11	1A17002	PNNL-AGG-415
13966-28-4	Lead	<2.88E-3	ug/g dry	2.88E-3	1/17/11	1A17002	PNNL-AGG-415

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B273B3	Lab ID: 1009008-08					
14092-98-9	Chromium	<8.54E-3	ug/g dry	8.54E-3	1/17/11	1A17002	PNNL-AGG-415
7440-38-2	Arsenic	3.65E-2	ug/g dry	3.52E-2	1/21/11	1A17002	PNNL-AGG-415
14687-58-2	Selenium	<1.96E-2	ug/g dry	1.96E-2	1/17/11	1A17002	PNNL-AGG-415
14378-37-1	Silver	<7.76E-3	ug/g dry	7.76E-3	1/17/11	1A17002	PNNL-AGG-415
14336-64-2	Cadmium	<1.42E-3	ug/g dry	1.42E-3	1/17/11	1A17002	PNNL-AGG-415
13966-28-4	Lead	<2.88E-3	ug/g dry	2.88E-3	1/17/11	1A17002	PNNL-AGG-415
HEIS No.	B273B4	Lab ID: 1009008-09					
14092-98-9	Chromium	<8.57E-3	ug/g dry	8.57E-3	1/17/11	1A17002	PNNL-AGG-415
7440-38-2	Arsenic	5.86E-2	ug/g dry	3.53E-2	1/21/11	1A17002	PNNL-AGG-415
14687-58-2	Selenium	<1.97E-2	ug/g dry	1.97E-2	1/17/11	1A17002	PNNL-AGG-415
14378-37-1	Silver	<7.78E-3	ug/g dry	7.78E-3	1/17/11	1A17002	PNNL-AGG-415
14336-64-2	Cadmium	<1.43E-3	ug/g dry	1.43E-3	1/17/11	1A17002	PNNL-AGG-415
13966-28-4	Lead	<2.89E-3	ug/g dry	2.89E-3	1/17/11	1A17002	PNNL-AGG-415
HEIS No.	B273B6	Lab ID: 1009008-10					
14092-98-9	Chromium	2.13E-2	ug/g dry	8.58E-3	1/17/11	1A17002	PNNL-AGG-415
7440-38-2	Arsenic	1.05E-1	ug/g dry	3.53E-2	1/21/11	1A17002	PNNL-AGG-415
14687-58-2	Selenium	<1.97E-2	ug/g dry	1.97E-2	1/17/11	1A17002	PNNL-AGG-415
14378-37-1	Silver	<7.79E-3	ug/g dry	7.79E-3	1/17/11	1A17002	PNNL-AGG-415
14336-64-2	Cadmium	<1.43E-3	ug/g dry	1.43E-3	1/17/11	1A17002	PNNL-AGG-415
13966-28-4	Lead	<2.90E-3	ug/g dry	2.90E-3	1/17/11	1A17002	PNNL-AGG-415
HEIS No.	B273B5	Lab ID: 1009008-11					
14092-98-9	Chromium	<8.61E-3	ug/g dry	8.61E-3	1/17/11	1A17002	PNNL-AGG-415
7440-38-2	Arsenic	<3.54E-2	ug/g dry	3.54E-2	1/21/11	1A17002	PNNL-AGG-415
14687-58-2	Selenium	<1.98E-2	ug/g dry	1.98E-2	1/17/11	1A17002	PNNL-AGG-415
14378-37-1	Silver	<7.81E-3	ug/g dry	7.81E-3	1/17/11	1A17002	PNNL-AGG-415
14336-64-2	Cadmium	<1.43E-3	ug/g dry	1.43E-3	1/17/11	1A17002	PNNL-AGG-415
13966-28-4	Lead	<2.90E-3	ug/g dry	2.90E-3	1/17/11	1A17002	PNNL-AGG-415

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B274K7	Lab ID: 1009008-01					
14092-98-9	Chromium	<1.65E-2	ug/g dry	1.65E-2	12/06/10	0J11004	PNNL-AGG-415
7440-38-2	Arsenic	<1.36E-2	ug/g dry	1.36E-2	12/06/10	0J11004	PNNL-AGG-415
14687-58-2	Selenium	<3.80E-2	ug/g dry	3.80E-2	12/06/10	0J11004	PNNL-AGG-415
14378-37-1	Silver	<1.50E-2	ug/g dry	1.50E-2	12/06/10	0J11004	PNNL-AGG-415
14336-64-2	Cadmium	<2.75E-3	ug/g dry	2.75E-3	12/06/10	0J11004	PNNL-AGG-415
13966-28-4	Lead	<5.58E-3	ug/g dry	5.58E-3	12/06/10	0J11004	PNNL-AGG-415
HEIS No.	B273B8	Lab ID: 1009008-02					
14092-98-9	Chromium	<1.70E-2	ug/g dry	1.70E-2	12/06/10	0J11004	PNNL-AGG-415
7440-38-2	Arsenic	<1.40E-2	ug/g dry	1.40E-2	12/06/10	0J11004	PNNL-AGG-415
14687-58-2	Selenium	<3.92E-2	ug/g dry	3.92E-2	12/06/10	0J11004	PNNL-AGG-415
14378-37-1	Silver	<1.55E-2	ug/g dry	1.55E-2	12/06/10	0J11004	PNNL-AGG-415
14336-64-2	Cadmium	<2.84E-3	ug/g dry	2.84E-3	12/06/10	0J11004	PNNL-AGG-415
13966-28-4	Lead	<5.75E-3	ug/g dry	5.75E-3	12/06/10	0J11004	PNNL-AGG-415
HEIS No.	B27PY0	Lab ID: 1009008-03					
14092-98-9	Chromium	<1.58E-2	ug/g dry	1.58E-2	12/06/10	0J11004	PNNL-AGG-415
7440-38-2	Arsenic	<1.30E-2	ug/g dry	1.30E-2	12/06/10	0J11004	PNNL-AGG-415
14687-58-2	Selenium	<3.64E-2	ug/g dry	3.64E-2	12/06/10	0J11004	PNNL-AGG-415
14378-37-1	Silver	<1.44E-2	ug/g dry	1.44E-2	12/06/10	0J11004	PNNL-AGG-415
14336-64-2	Cadmium	<2.63E-3	ug/g dry	2.63E-3	12/06/10	0J11004	PNNL-AGG-415
13966-28-4	Lead	<5.34E-3	ug/g dry	5.34E-3	12/06/10	0J11004	PNNL-AGG-415
HEIS No.	B274K6	Lab ID: 1009008-04					
14092-98-9	Chromium	<1.72E-2	ug/g dry	1.72E-2	12/06/10	0J11004	PNNL-AGG-415
7440-38-2	Arsenic	<1.42E-2	ug/g dry	1.42E-2	12/06/10	0J11004	PNNL-AGG-415
14687-58-2	Selenium	<3.95E-2	ug/g dry	3.95E-2	12/06/10	0J11004	PNNL-AGG-415
14378-37-1	Silver	<1.56E-2	ug/g dry	1.56E-2	12/06/10	0J11004	PNNL-AGG-415
14336-64-2	Cadmium	<2.86E-3	ug/g dry	2.86E-3	12/06/10	0J11004	PNNL-AGG-415
13966-28-4	Lead	<5.80E-3	ug/g dry	5.80E-3	12/06/10	0J11004	PNNL-AGG-415
HEIS No.	B26TC1	Lab ID: 1009008-05					
14092-98-9	Chromium	<1.69E-2	ug/g dry	1.69E-2	12/06/10	0J11004	PNNL-AGG-415
7440-38-2	Arsenic	<1.39E-2	ug/g dry	1.39E-2	12/06/10	0J11004	PNNL-AGG-415
14687-58-2	Selenium	<3.89E-2	ug/g dry	3.89E-2	12/06/10	0J11004	PNNL-AGG-415
14378-37-1	Silver	<1.54E-2	ug/g dry	1.54E-2	12/06/10	0J11004	PNNL-AGG-415
14336-64-2	Cadmium	<2.82E-3	ug/g dry	2.82E-3	12/06/10	0J11004	PNNL-AGG-415
13966-28-4	Lead	<5.72E-3	ug/g dry	5.72E-3	12/06/10	0J11004	PNNL-AGG-415
HEIS No.	B26TC2	Lab ID: 1009008-06					
14092-98-9	Chromium	<1.72E-2	ug/g dry	1.72E-2	12/06/10	0J11004	PNNL-AGG-415
7440-38-2	Arsenic	2.00E-2	ug/g dry	1.41E-2	12/06/10	0J11004	PNNL-AGG-415
14687-58-2	Selenium	<3.95E-2	ug/g dry	3.95E-2	12/06/10	0J11004	PNNL-AGG-415
14378-37-1	Silver	<1.56E-2	ug/g dry	1.56E-2	12/06/10	0J11004	PNNL-AGG-415
14336-64-2	Cadmium	<2.86E-3	ug/g dry	2.86E-3	12/06/10	0J11004	PNNL-AGG-415
13966-28-4	Lead	<5.80E-3	ug/g dry	5.80E-3	12/06/10	0J11004	PNNL-AGG-415
HEIS No.	B273B2	Lab ID: 1009008-07					
14092-98-9	Chromium	<1.72E-2	ug/g dry	1.72E-2	1/17/11	1A17003	PNNL-AGG-415
7440-38-2	Arsenic	<7.09E-2	ug/g dry	7.09E-2	1/21/11	1A17003	PNNL-AGG-415
14687-58-2	Selenium	<3.96E-2	ug/g dry	3.96E-2	1/17/11	1A17003	PNNL-AGG-415
14378-37-1	Silver	<1.56E-2	ug/g dry	1.56E-2	1/17/11	1A17003	PNNL-AGG-415
14336-64-2	Cadmium	<2.86E-3	ug/g dry	2.86E-3	1/17/11	1A17003	PNNL-AGG-415
13966-28-4	Lead	<5.81E-3	ug/g dry	5.81E-3	1/17/11	1A17003	PNNL-AGG-415

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B273B3	Lab ID: 1009008-08					
14092-98-9	Chromium	<1.70E-2	ug/g dry	1.70E-2	1/17/11	1A17003	PNNL-AGG-415
7440-38-2	Arsenic	<6.99E-2	ug/g dry	6.99E-2	1/21/11	1A17003	PNNL-AGG-415
14687-58-2	Selenium	<3.90E-2	ug/g dry	3.90E-2	1/17/11	1A17003	PNNL-AGG-415
14378-37-1	Silver	<1.54E-2	ug/g dry	1.54E-2	1/17/11	1A17003	PNNL-AGG-415
14336-64-2	Cadmium	<2.82E-3	ug/g dry	2.82E-3	1/17/11	1A17003	PNNL-AGG-415
13966-28-4	Lead	<5.73E-3	ug/g dry	5.73E-3	1/17/11	1A17003	PNNL-AGG-415
HEIS No.	B273B4	Lab ID: 1009008-09					
14092-98-9	Chromium	<1.73E-2	ug/g dry	1.73E-2	1/17/11	1A17003	PNNL-AGG-415
7440-38-2	Arsenic	<7.12E-2	ug/g dry	7.12E-2	1/21/11	1A17003	PNNL-AGG-415
14687-58-2	Selenium	<3.97E-2	ug/g dry	3.97E-2	1/17/11	1A17003	PNNL-AGG-415
14378-37-1	Silver	<1.57E-2	ug/g dry	1.57E-2	1/17/11	1A17003	PNNL-AGG-415
14336-64-2	Cadmium	<2.88E-3	ug/g dry	2.88E-3	1/17/11	1A17003	PNNL-AGG-415
13966-28-4	Lead	5.95E-2	ug/g dry	5.83E-3	1/17/11	1A17003	PNNL-AGG-415
HEIS No.	B273B6	Lab ID: 1009008-10					
14092-98-9	Chromium	2.20E-2	ug/g dry	1.71E-2	1/17/11	1A17003	PNNL-AGG-415
7440-38-2	Arsenic	1.65E-1	ug/g dry	7.06E-2	1/21/11	1A17003	PNNL-AGG-415
14687-58-2	Selenium	<3.94E-2	ug/g dry	3.94E-2	1/17/11	1A17003	PNNL-AGG-415
14378-37-1	Silver	<1.56E-2	ug/g dry	1.56E-2	1/17/11	1A17003	PNNL-AGG-415
14336-64-2	Cadmium	<2.85E-3	ug/g dry	2.85E-3	1/17/11	1A17003	PNNL-AGG-415
13966-28-4	Lead	<5.79E-3	ug/g dry	5.79E-3	1/17/11	1A17003	PNNL-AGG-415
HEIS No.	B273B5	Lab ID: 1009008-11					
14092-98-9	Chromium	<1.68E-2	ug/g dry	1.68E-2	1/17/11	1A17003	PNNL-AGG-415
7440-38-2	Arsenic	<6.93E-2	ug/g dry	6.93E-2	1/21/11	1A17003	PNNL-AGG-415
14687-58-2	Selenium	<3.87E-2	ug/g dry	3.87E-2	1/17/11	1A17003	PNNL-AGG-415
14378-37-1	Silver	<1.53E-2	ug/g dry	1.53E-2	1/17/11	1A17003	PNNL-AGG-415
14336-64-2	Cadmium	<2.80E-3	ug/g dry	2.80E-3	1/17/11	1A17003	PNNL-AGG-415
13966-28-4	Lead	<5.68E-3	ug/g dry	5.68E-3	1/17/11	1A17003	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B274K7	Lab ID: 1009008-01					
14092-98-9	Chromium	4.52E0	ug/g dry	4.36E-1	10/11/10	0J11001	PNNL-AGG-415
7440-38-2	Arsenic	4.56E-1	ug/g dry	1.90E-1	10/11/10	0J11001	PNNL-AGG-415
14687-58-2	Selenium	<3.67E-1	ug/g dry	3.67E-1	10/11/10	0J11001	PNNL-AGG-415
14378-37-1	Silver	6.20E-2	ug/g dry	1.19E-2	12/02/10	0J11001	PNNL-AGG-415
14336-64-2	Cadmium	<3.13E-2	ug/g dry	3.13E-2	12/02/10	0J11001	PNNL-AGG-415
13966-28-4	Lead	2.83E0	ug/g dry	1.19E-1	12/02/10	0J11001	PNNL-AGG-415
HEIS No.	B273B8	Lab ID: 1009008-02					
14092-98-9	Chromium	2.70E0	ug/g dry	3.91E-1	10/11/10	0J11001	PNNL-AGG-415
7440-38-2	Arsenic	3.92E-1	ug/g dry	1.70E-1	10/11/10	0J11001	PNNL-AGG-415
14687-58-2	Selenium	<3.29E-1	ug/g dry	3.29E-1	10/11/10	0J11001	PNNL-AGG-415
14378-37-1	Silver	2.98E-2	ug/g dry	1.06E-2	12/02/10	0J11001	PNNL-AGG-415
14336-64-2	Cadmium	<2.81E-2	ug/g dry	2.81E-2	12/02/10	0J11001	PNNL-AGG-415
13966-28-4	Lead	1.36E0	ug/g dry	1.06E-1	12/02/10	0J11001	PNNL-AGG-415
HEIS No.	B27PY0	Lab ID: 1009008-03					
14092-98-9	Chromium	2.53E0	ug/g dry	3.64E-1	10/11/10	0J11001	PNNL-AGG-415
7440-38-2	Arsenic	3.08E-1	ug/g dry	1.58E-1	10/11/10	0J11001	PNNL-AGG-415
14687-58-2	Selenium	<3.06E-1	ug/g dry	3.06E-1	10/11/10	0J11001	PNNL-AGG-415
14378-37-1	Silver	2.65E-2	ug/g dry	9.92E-3	12/02/10	0J11001	PNNL-AGG-415
14336-64-2	Cadmium	3.08E-2	ug/g dry	2.62E-2	12/02/10	0J11001	PNNL-AGG-415
13966-28-4	Lead	1.13E0	ug/g dry	9.92E-2	12/02/10	0J11001	PNNL-AGG-415
HEIS No.	B274K6	Lab ID: 1009008-04					
14092-98-9	Chromium	2.71E0	ug/g dry	3.92E-1	10/11/10	0J11001	PNNL-AGG-415
7440-38-2	Arsenic	3.32E-1	ug/g dry	1.71E-1	10/11/10	0J11001	PNNL-AGG-415
14687-58-2	Selenium	<3.30E-1	ug/g dry	3.30E-1	10/11/10	0J11001	PNNL-AGG-415
14378-37-1	Silver	2.40E-2	ug/g dry	1.07E-2	12/02/10	0J11001	PNNL-AGG-415
14336-64-2	Cadmium	<2.82E-2	ug/g dry	2.82E-2	12/02/10	0J11001	PNNL-AGG-415
13966-28-4	Lead	1.24E0	ug/g dry	1.07E-1	12/02/10	0J11001	PNNL-AGG-415
HEIS No.	B26TC1	Lab ID: 1009008-05					
14092-98-9	Chromium	3.44E0	ug/g dry	3.54E-1	10/11/10	0J11001	PNNL-AGG-415
7440-38-2	Arsenic	2.69E-1	ug/g dry	1.54E-1	10/11/10	0J11001	PNNL-AGG-415
14687-58-2	Selenium	<2.98E-1	ug/g dry	2.98E-1	10/11/10	0J11001	PNNL-AGG-415
14378-37-1	Silver	3.46E-2	ug/g dry	9.64E-3	12/02/10	0J11001	PNNL-AGG-415
14336-64-2	Cadmium	3.43E-2	ug/g dry	2.54E-2	12/02/10	0J11001	PNNL-AGG-415
13966-28-4	Lead	1.13E0	ug/g dry	9.65E-2	12/02/10	0J11001	PNNL-AGG-415
HEIS No.	B26TC2	Lab ID: 1009008-06					
14092-98-9	Chromium	5.89E0	ug/g dry	3.93E-1	10/11/10	0J11001	PNNL-AGG-415
7440-38-2	Arsenic	8.05E-1	ug/g dry	1.71E-1	10/11/10	0J11001	PNNL-AGG-415
14687-58-2	Selenium	<3.31E-1	ug/g dry	3.31E-1	10/11/10	0J11001	PNNL-AGG-415
14378-37-1	Silver	1.04E-1	ug/g dry	1.07E-2	12/02/10	0J11001	PNNL-AGG-415
14336-64-2	Cadmium	2.53E-1	ug/g dry	2.83E-2	12/02/10	0J11001	PNNL-AGG-415
13966-28-4	Lead	3.67E0	ug/g dry	1.07E-1	12/02/10	0J11001	PNNL-AGG-415
HEIS No.	B273B2	Lab ID: 1009008-07					
14092-98-9	Chromium	1.06E1	ug/g dry	6.80E-1	1/20/11	1A20001	PNNL-AGG-415
7440-38-2	Arsenic	2.62E0	ug/g dry	2.96E-1	1/21/11	1A20001	PNNL-AGG-415
14687-58-2	Selenium	<5.72E-1	ug/g dry	5.72E-1	1/20/11	1A20001	PNNL-AGG-415
14378-37-1	Silver	7.18E-2	ug/g dry	1.85E-2	1/20/11	1A20001	PNNL-AGG-415
14336-64-2	Cadmium	3.04E-1	ug/g dry	4.89E-2	1/20/11	1A20001	PNNL-AGG-415
13966-28-4	Lead	3.95E0	ug/g dry	1.85E-1	1/20/11	1A20001	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	B273B3	Lab ID: 1009008-08					
14092-98-9	Chromium	1.07E1	ug/g dry	7.76E-1	1/20/11	1A20001	PNNL-AGG-415
7440-38-2	Arsenic	2.54E0	ug/g dry	3.38E-1	1/21/11	1A20001	PNNL-AGG-415
14687-58-2	Selenium	<6.53E-1	ug/g dry	6.53E-1	1/20/11	1A20001	PNNL-AGG-415
14378-37-1	Silver	5.49E-2	ug/g dry	2.11E-2	1/20/11	1A20001	PNNL-AGG-415
14336-64-2	Cadmium	1.34E-1	ug/g dry	5.58E-2	1/20/11	1A20001	PNNL-AGG-415
13966-28-4	Lead	2.59E0	ug/g dry	2.12E-1	1/20/11	1A20001	PNNL-AGG-415
HEIS No.	B273B4	Lab ID: 1009008-09					
14092-98-9	Chromium	1.49E1	ug/g dry	7.32E-1	1/20/11	1A20001	PNNL-AGG-415
7440-38-2	Arsenic	3.06E0	ug/g dry	3.19E-1	1/22/11	1A20001	PNNL-AGG-415
14687-58-2	Selenium	<6.16E-1	ug/g dry	6.16E-1	1/20/11	1A20001	PNNL-AGG-415
14378-37-1	Silver	7.76E-2	ug/g dry	1.99E-2	1/20/11	1A20001	PNNL-AGG-415
14336-64-2	Cadmium	1.92E-1	ug/g dry	5.26E-2	1/20/11	1A20001	PNNL-AGG-415
13966-28-4	Lead	4.27E0	ug/g dry	2.00E-1	1/20/11	1A20001	PNNL-AGG-415
HEIS No.	B273B6	Lab ID: 1009008-10					
14092-98-9	Chromium	1.10E1	ug/g dry	8.95E-1	1/20/11	1A20001	PNNL-AGG-415
7440-38-2	Arsenic	9.71E0	ug/g dry	3.90E-1	1/22/11	1A20001	PNNL-AGG-415
14687-58-2	Selenium	<7.53E-1	ug/g dry	7.53E-1	1/20/11	1A20001	PNNL-AGG-415
14378-37-1	Silver	<2.44E-2	ug/g dry	2.44E-2	1/20/11	1A20001	PNNL-AGG-415
14336-64-2	Cadmium	<6.43E-2	ug/g dry	6.43E-2	1/20/11	1A20001	PNNL-AGG-415
13966-28-4	Lead	5.10E0	ug/g dry	2.44E-1	1/20/11	1A20001	PNNL-AGG-415
HEIS No.	B273B5	Lab ID: 1009008-11					
14092-98-9	Chromium	9.88E0	ug/g dry	8.44E-1	1/20/11	1A20001	PNNL-AGG-415
7440-38-2	Arsenic	2.16E0	ug/g dry	3.67E-1	1/22/11	1A20001	PNNL-AGG-415
14687-58-2	Selenium	<7.10E-1	ug/g dry	7.10E-1	1/20/11	1A20001	PNNL-AGG-415
14378-37-1	Silver	5.08E-2	ug/g dry	2.30E-2	1/20/11	1A20001	PNNL-AGG-415
14336-64-2	Cadmium	6.22E-2	ug/g dry	6.07E-2	1/20/11	1A20001	PNNL-AGG-415
13966-28-4	Lead	4.03E0	ug/g dry	2.30E-1	1/20/11	1A20001	PNNL-AGG-415

Strontium 90/Acid Extract**Strontium-90 (pCi/g dry) by AGG-RRL-002**

Lab ID	HEIS No.	Results	MDA	UNC	Analyzed	Batch
1009008-01	B274K7	<9.11E-1	9.11E-1		10/15/10	OJ07001
1009008-02	B273B8	<9.04E-1	9.04E-1		10/15/10	OJ07001
1009008-03	B27PY0	<9.02E-1	9.02E-1		10/15/10	OJ07001
1009008-04	B274K6	<8.96E-1	8.96E-1		10/15/10	OJ07001
1009008-05	B26TC1	<8.99E-1	8.99E-1		10/15/10	OJ07001
1009008-06	B26TC2	<8.89E-1	8.89E-1		10/15/10	OJ07001
1009008-07	B273B2	<1.11E0	1.11E0		1/12/11	1A05001
1009008-08	B273B3	<1.10E0	1.10E0		1/12/11	1A05001
1009008-09	B273B4	<1.12E0	1.12E0		1/12/11	1A05001
1009008-10	B273B6	<1.10E0	1.10E0		1/12/11	1A05001
1009008-11	B273B5	<1.10E0	1.10E0		1/12/11	1A05001

Strontium 90/1:1 Water Extract**Strontium-90 (pCi/g dry) by AGG-RRL-002**

Lab ID	HEIS No.	Results	MDA	UNC	Analyzed	Batch
1009008-01	B274K7	<8.74E-1	8.74E-1		10/15/10	0J07010
1009008-02	B273B8	<9.29E-1	9.29E-1		10/15/10	0J07010
1009008-03	B27PY0	<9.43E-1	9.43E-1		10/15/10	0J07010
1009008-04	B274K6	<9.34E-1	9.34E-1		10/15/10	0J07010
1009008-05	B26TC1	<9.32E-1	9.32E-1		10/15/10	0J07010
1009008-06	B26TC2	<9.70E-1	9.70E-1		10/15/10	0J07010
1009008-07	B273B2	<1.12E0	1.12E0		1/12/11	1A06003
1009008-08	B273B3	<1.12E0	1.12E0		1/12/11	1A06003
1009008-09	B273B4	<1.12E0	1.12E0		1/12/11	1A06003
1009008-10	B273B6	<1.11E0	1.11E0		1/12/11	1A06003
1009008-11	B273B5	<1.16E0	1.16E0		1/12/11	1A06003

Strontium 90/1:2.5 Water Extract**Strontium-90 (pCi/g dry) by AGG-RRL-002**

Lab ID	HEIS No.	Results	MDA	UNC	Analyzed	Batch
1009008-01	B274K7	<2.22E0	2.22E0		11/15/10	0J07011
1009008-02	B273B8	<2.32E0	2.32E0		11/15/10	0J07011
1009008-03	B27PY0	<2.33E0	2.33E0		11/15/10	0J07011
1009008-04	B274K6	<2.48E0	2.48E0		11/15/10	0J07011
1009008-05	B26TC1	<2.32E0	2.32E0		11/15/10	0J07011
1009008-06	B26TC2	<2.31E0	2.31E0		11/15/10	0J07011
1009008-07	B273B2	<2.75E0	2.75E0		1/17/11	1A07003
1009008-08	B273B3	<2.75E0	2.75E0		1/17/11	1A07003
1009008-09	B273B4	<2.76E0	2.76E0		1/17/11	1A07003
1009008-10	B273B6	<2.76E0	2.76E0		1/17/11	1A07003
1009008-11	B273B5	<2.77E0	2.77E0		1/17/11	1A07003

Strontium 90/1:5 Water Extract

Strontium-90 (pCi/g dry) by AGG-RRL-002

Lab ID	HEIS No.	Results	MDA	UNC	Analyzed	Batch
1009008-01	B274K7	<4.47E0	4.47E0		10/15/10	0J07012
1009008-02	B273B8	<4.61E0	4.61E0		10/15/10	0J07012
1009008-03	B27PY0	<4.28E0	4.28E0		10/15/10	0J07012
1009008-04	B274K6	<4.65E0	4.65E0		10/15/10	0J07012
1009008-05	B26TC1	<4.58E0	4.58E0		10/15/10	0J07012
1009008-06	B26TC2	<4.64E0	4.64E0		10/15/10	0J07012
1009008-07	B273B2	<5.54E0	5.54E0		1/17/11	1A10006
1009008-08	B273B3	<5.46E0	5.46E0		1/17/11	1A10006
1009008-09	B273B4	<5.57E0	5.57E0		1/17/11	1A10006
1009008-10	B273B6	<5.52E0	5.52E0		1/17/11	1A10006
1009008-11	B273B5	<5.42E0	5.42E0		1/17/11	1A10006

Equilibrium Kd 1:1 Calculations

1009008-01		B274K7		1009008-02		B273B8		1009008-03		B27PY0	
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	4.83E-02	Arsenic	ND	Arsenic	ND	Arsenic	ND	Arsenic	ND	Arsenic	ND
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
Strontium-90	ND	Strontium-90	ND	Strontium-90	ND	Strontium-90	ND	Strontium-90	ND	Strontium-90	ND

1009008-04		B274K6		1009008-05		B26TC1		1009008-06		B26TC2	
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	ND	Arsenic	ND	Arsenic	ND	Arsenic	ND	Arsenic	8.99E-02	Arsenic	8.99E-02
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
Strontium-90	ND	Strontium-90	ND	Strontium-90	ND	Strontium-90	ND	Strontium-90	ND	Strontium-90	ND

1009008-07		B273B2		1009008-08		B273B3		1009008-09		B273B4	
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	1.21E-01	Arsenic	ND	Arsenic	ND	Arsenic	ND	Arsenic	1.12E-01	Arsenic	1.12E-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
Strontium-90	ND	Strontium-90	ND	Strontium-90	ND	Strontium-90	ND	Strontium-90	ND	Strontium-90	ND

1009008-10		B273B6		1009008-11		B273B5	
Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)
Arsenic	2.44E-01	Arsenic	2.44E-01	Arsenic	1.13E-01	Arsenic	1.13E-01
Barium	ND	Barium	ND	Barium	ND	Barium	ND
Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND
Chromium (Total)	5.11E-01	Chromium (Total)	5.11E-01	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
Strontium-90	ND	Strontium-90	ND	Strontium-90	ND	Strontium-90	ND

Equilibrium Kd 1:2.5 Calculations

1009008-01		B274K7		1009008-02		B273B8		1009008-03		B27PY0	
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	5.06E-02	Arsenic	ND	Arsenic	ND	Arsenic	ND	Arsenic	ND	Arsenic	ND
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
Strontium-90	ND	Strontium-90	ND	Strontium-90	ND	Strontium-90	ND	Strontium-90	ND	Strontium-90	ND

1009008-04		B274K6		1009008-05		B26TC1		1009008-06		B26TC2	
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	ND	Arsenic	ND	Arsenic	ND	Arsenic	ND	Arsenic	6.19E-02	Arsenic	6.19E-02
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
Strontium-90	ND	Strontium-90	ND	Strontium-90	ND	Strontium-90	ND	Strontium-90	ND	Strontium-90	ND

1009008-07		B273B2		1009008-08		B273B3		1009008-09		B273B4	
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	5.94E-02	Arsenic	5.94E-02	Arsenic	6.86E-02	Arsenic	6.86E-02	Arsenic	5.12E-02	Arsenic	5.12E-02
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
Strontium-90	ND	Strontium-90	ND	Strontium-90	ND	Strontium-90	ND	Strontium-90	ND	Strontium-90	ND

1009008-10		B273B6		1009008-11		B273B5	
Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)	Analyte	Kd (L/g)
Arsenic	9.15E-02	Arsenic	9.15E-02	Arsenic	ND	Arsenic	ND
Barium	ND	Barium	ND	Barium	ND	Barium	ND
Cadmium	ND	Cadmium	ND	Cadmium	ND	Cadmium	ND
Chromium (Total)	5.15E-01	Chromium (Total)	5.15E-01	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
Strontium-90	ND	Strontium-90	ND	Strontium-90	ND	Strontium-90	ND

Equilibrium Kd 1:5 Calculations

1009008-01		B274K7	1009008-02		B273B8	1009008-03		B27PY0
Analyte		Kd (L/g)	Analyte		Kd (L/g)	Analyte		Kd (L/g)
Arsenic		ND	Arsenic		ND	Arsenic		ND
Barium		ND	Barium		ND	Barium		ND
Cadmium		ND	Cadmium		ND	Cadmium		ND
Chromium (Total)		ND	Chromium (Total)		ND	Chromium (Total)		ND
Chromium, Hexavalent		ND	Chromium, Hexavalent		ND	Chromium, Hexavalent		ND
Lead		ND	Lead		ND	Lead		ND
Selenium		ND	Selenium		ND	Selenium		ND
Silver		ND	Silver		ND	Silver		ND
Strontium-90		ND	Strontium-90		ND	Strontium-90		ND

1009008-04		B274K6	1009008-05		B26TC1	1009008-06		B26TC2
Analyte		Kd (L/g)	Analyte		Kd (L/g)	Analyte		Kd (L/g)
Arsenic		ND	Arsenic		ND	Arsenic		3.93E-02
Barium		ND	Barium		ND	Barium		ND
Cadmium		ND	Cadmium		ND	Cadmium		ND
Chromium (Total)		ND	Chromium (Total)		ND	Chromium (Total)		ND
Chromium, Hexavalent		ND	Chromium, Hexavalent		ND	Chromium, Hexavalent		ND
Lead		ND	Lead		ND	Lead		ND
Selenium		ND	Selenium		ND	Selenium		ND
Silver		ND	Silver		ND	Silver		ND
Strontium-90		ND	Strontium-90		ND	Strontium-90		ND

1009008-07		B273B2	1009008-08		B273B3	1009008-09		B273B4
Analyte		Kd (L/g)	Analyte		Kd (L/g)	Analyte		Kd (L/g)
Arsenic		ND	Arsenic		ND	Arsenic		ND
Barium		ND	Barium		ND	Barium		ND
Cadmium		ND	Cadmium		ND	Cadmium		ND
Chromium (Total)		ND	Chromium (Total)		ND	Chromium (Total)		ND
Chromium, Hexavalent		ND	Chromium, Hexavalent		ND	Chromium, Hexavalent		ND
Lead		ND	Lead		ND	Lead		7.08E-02
Selenium		ND	Selenium		ND	Selenium		ND
Silver		ND	Silver		ND	Silver		ND
Strontium-90		ND	Strontium-90		ND	Strontium-90		ND

1009008-10		B273B6	1009008-11		B273B5
Analyte		Kd (L/g)	Analyte		Kd (L/g)
Arsenic		5.78E-02	Arsenic		ND
Barium		ND	Barium		ND
Cadmium		ND	Cadmium		ND
Chromium (Total)		4.99E-01	Chromium (Total)		ND
Chromium, Hexavalent		ND	Chromium, Hexavalent		ND
Lead		ND	Lead		ND
Selenium		ND	Selenium		ND
Silver		ND	Silver		ND
Strontium-90		ND	Strontium-90		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
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Batch 0J14008 - Hexavalent Chromium Digest

Blank (0J14008-BLK1) Prepared & Analyzed: 10/14/10

Chromium, Hexavalent	<2.50E0	2.50E0	ug/g wet							
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LCS (0J14008-BS1) Prepared & Analyzed: 10/14/10

Chromium, Hexavalent	2.54E1	2.50E0	ug/g wet	2.50E1		102	70-130			
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Duplicate (0J14008-DUP1) Source: 1009008-01 Prepared & Analyzed: 10/14/10

Chromium, Hexavalent	<6.66E-1	6.66E-1	ug/g dry		ND				35	
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Batch 1A14001 - Hexavalent Chromium Digest

Blank (1A14001-BLK1) Prepared & Analyzed: 01/13/11

Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g wet							
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LCS (1A14001-BS1) Prepared & Analyzed: 01/13/11

Chromium, Hexavalent	4.71E-1	5.00E-2	ug/g wet	5.00E-1		94.3	80-120			
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Duplicate (1A14001-DUP1) Source: 1009008-10 Prepared & Analyzed: 01/13/11

Chromium, Hexavalent	<6.92E-1	6.92E-1	ug/g dry		ND				35	
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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 0J11006 - 1:1 Water Extract (Cr6)										
Blank (0J11006-BLK1)				Prepared: 10/08/10 Analyzed: 10/11/10						
Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g wet							
LCS (0J11006-BS1)				Prepared: 10/08/10 Analyzed: 10/11/10						
Chromium, Hexavalent	5.06E-1	5.00E-2	ug/g wet	5.00E-1		101	70-130			
Duplicate (0J11006-DUP1)				Source: 1009008-01		Prepared: 10/08/10 Analyzed: 10/11/10				
Chromium, Hexavalent	<2.92E-2	2.92E-2	ug/g dry		ND				35	
Batch 1A06002 - 1:1 Water Extract (Cr6)										
Blank (1A06002-BLK1)				Prepared & Analyzed: 01/07/11						
Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g wet							
LCS (1A06002-BS1)				Prepared & Analyzed: 01/07/11						
Chromium, Hexavalent	5.17E-1	N/A	ug/mL	5.00E-1		103	70-130			
Duplicate (1A06002-DUP1)				Source: 1009008-10		Prepared & Analyzed: 01/07/11				
Chromium, Hexavalent	<3.88E-2	3.88E-2	ug/g dry		ND				35	

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
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Batch 0J12002 - 1:2.5 Water Extract (Cr6)

Blank (0J12002-BLK1) Prepared: 11/28/10 Analyzed: 12/02/10

Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g wet							
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LCS (0J12002-BS1) Prepared: 11/28/10 Analyzed: 12/02/10

Chromium, Hexavalent	5.40E-1	5.00E-2	ug/g wet	5.00E-1		108	70-130			
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Duplicate (0J12002-DUP1) Source: 1009008-01 Prepared: 11/28/10 Analyzed: 12/02/10

Chromium, Hexavalent	<1.02E-1	1.02E-1	ug/g dry			ND			35	
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Post Spike (0J12002-PS1) Source: 1009008-04 Prepared: 11/28/10 Analyzed: 12/02/10

Chromium, Hexavalent	4.89E-1	N/A	ug/mL	5.00E-1	7.00E-3	96.4	75-125			
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Batch 1A07001 - 1:2.5 Water Extract (Cr6)

Blank (1A07001-BLK1) Prepared & Analyzed: 01/07/11

Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g wet							
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LCS (1A07001-BS1) Prepared & Analyzed: 01/07/11

Chromium, Hexavalent	5.19E-1	5.00E-2	ug/g wet	5.00E-1		104	70-130			
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Duplicate (1A07001-DUP1) Source: 1009008-10 Prepared & Analyzed: 01/07/11

Chromium, Hexavalent	<1.05E-1	1.05E-1	ug/g dry			ND			35	
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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 0J15001 - 1:5 Water Extract (Cr6)										
Blank (0J15001-BLK1)				Prepared: 11/28/10 Analyzed: 12/02/10						
Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g wet							
LCS (0J15001-BS1)				Prepared: 11/28/10 Analyzed: 12/02/10						
Chromium, Hexavalent	5.45E-1	5.00E-2	ug/g wet	5.00E-1		109	70-130			
Duplicate (0J15001-DUP1)				Source: 1009008-01		Prepared: 11/28/10 Analyzed: 12/02/10				
Chromium, Hexavalent	<2.21E-1	2.21E-1	ug/g dry			ND				35
Post Spike (0J15001-PS1)				Source: 1009008-01		Prepared: 11/28/10 Analyzed: 12/02/10				
Chromium, Hexavalent	7.71E-1	N/A	ug/mL	5.00E-1	7.00E-3	153	75-125			
Batch 1A07002 - 1:5 Water Extract (Cr6)										
Blank (1A07002-BLK1)				Prepared & Analyzed: 01/07/11						
Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g wet							
LCS (1A07002-BS1)				Prepared & Analyzed: 01/07/11						
Chromium, Hexavalent	5.23E-1	N/A	ug/mL	5.00E-1		105	70-130			
Duplicate (1A07002-DUP1)				Source: 1009008-10		Prepared & Analyzed: 01/07/11				
Chromium, Hexavalent	<1.89E-1	1.89E-1	ug/g dry			ND				35

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 0J14005 - 1:1 Water Extract (ICP/ICPMS)										
Blank (0J14005-BLK1)					Prepared: 10/06/10 Analyzed: 10/14/10					
Barium	<1.24E-1	1.24E-1	ug/g wet							
LCS (0J14005-BS1)					Prepared: 10/06/10 Analyzed: 10/14/10					
Barium	4.41E0	1.24E-1	ug/g wet	4.99E0		88.4	80-120			
Duplicate (0J14005-DUP1)					Source: 1009008-01 Prepared: 10/06/10 Analyzed: 10/14/10					
Barium	<1.16E-1	1.16E-1	ug/g dry		ND					35
Post Spike (0J14005-PS1)					Source: 1009008-01 Prepared & Analyzed: 10/14/10					
Barium	2.72E2	N/A	ug/L	2.50E2	8.87E0	105	75-125			
Batch 1A31003 - 1:1 Water Extract (ICP/ICPMS)										
Blank (1A31003-BLK1)					Prepared: 01/05/11 Analyzed: 02/01/11					
Barium	<8.25E-2	8.25E-2	ug/g wet							
LCS (1A31003-BS1)					Prepared: 01/05/11 Analyzed: 02/01/11					
Barium	4.51E0	8.25E-2	ug/g wet	5.00E0		90.2	80-120			
Duplicate (1A31003-DUP1)					Source: 1009008-10 Prepared: 01/05/11 Analyzed: 02/01/11					
Barium	<9.55E-2	9.55E-2	ug/g dry		ND					35
Post Spike (1A31003-PS1)					Source: 1009008-10 Prepared & Analyzed: 02/01/11					
Barium	2.76E2	N/A	ug/L	2.50E2	2.95E1	98.7	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 0J14006 - 1:2.5 Water Extract (ICP/ICPMS)										
Blank (0J14006-BLK1)				Prepared: 10/06/10 Analyzed: 12/02/10						
Barium	<1.24E-1	1.24E-1	ug/g wet							
LCS (0J14006-BS1)				Prepared: 10/06/10 Analyzed: 12/02/10						
Barium	4.83E0	1.24E-1	ug/g wet	5.00E0		96.6	80-120			
Duplicate (0J14006-DUP1)				Source: 1009008-01		Prepared: 10/06/10 Analyzed: 12/02/10				
Barium	<2.96E-1	2.96E-1	ug/g dry			ND				35
Post Spike (0J14006-PS1)				Source: 1009008-01		Prepared: 10/14/10 Analyzed: 12/02/10				
Barium	2.65E2	N/A	ug/L	2.50E2	5.30E0	104	75-125			
Batch 1A31004 - 1:2.5 Water Extract (ICP/ICPMS)										
Blank (1A31004-BLK1)				Prepared: 01/05/11 Analyzed: 02/01/11						
Barium	<8.25E-2	8.25E-2	ug/g wet							
LCS (1A31004-BS1)				Prepared: 01/05/11 Analyzed: 02/01/11						
Barium	4.47E0	8.25E-2	ug/g wet	4.99E0		89.7	80-120			
Duplicate (1A31004-DUP1)				Source: 1009008-10		Prepared: 01/05/11 Analyzed: 02/01/11				
Barium	<2.06E-1	2.06E-1	ug/g dry			ND				35
Post Spike (1A31004-PS1)				Source: 1009008-10		Prepared & Analyzed: 02/01/11				
Barium	2.62E2	N/A	ug/L	2.50E2	1.65E1	98.3	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 0J14007 - 1:5 Water Extract (ICP/ICPMS)										
Blank (0J14007-BLK1)				Prepared: 10/06/10 Analyzed: 12/02/10						
Barium	<1.24E-1	1.24E-1	ug/g wet							
LCS (0J14007-BS1)				Prepared: 10/06/10 Analyzed: 12/02/10						
Barium	4.97E0	1.24E-1	ug/g wet	5.00E0		99.4	80-120			
Duplicate (0J14007-DUP1)				Source: 1009008-01		Prepared: 10/06/10 Analyzed: 12/02/10				
Barium	<5.90E-1	5.90E-1	ug/g dry			ND				35
Post Spike (0J14007-PS1)				Source: 1009008-01		Prepared: 10/14/10 Analyzed: 12/02/10				
Barium	2.55E2	N/A	ug/L	2.50E2	3.89E0	100	75-125			
Batch 1A31005 - 1:5 Water Extract (ICP/ICPMS)										
Blank (1A31005-BLK1)				Prepared: 01/05/11 Analyzed: 02/01/11						
Barium	<8.25E-2	8.25E-2	ug/g wet							
LCS (1A31005-BS1)				Prepared: 01/05/11 Analyzed: 02/01/11						
Barium	4.57E0	8.25E-2	ug/g wet	5.00E0		91.4	80-120			
Duplicate (1A31005-DUP1)				Source: 1009008-10		Prepared: 01/05/11 Analyzed: 02/01/11				
Barium	<3.43E-1	3.43E-1	ug/g dry			ND				35
Post Spike (1A31005-PS1)				Source: 1009008-10		Prepared & Analyzed: 02/01/11				
Barium	2.57E2	N/A	ug/L	2.50E2	1.11E1	98.4	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 0J14004 - ASTM D 5198 (ICP/ICPMS)										
Blank (0J14004-BLK1)				Prepared: 10/04/10 Analyzed: 10/15/10						
Barium	<4.12E-1	4.12E-1	ug/g wet							
LCS (0J14004-BS1)				Prepared: 10/04/10 Analyzed: 10/15/10						
Barium	5.83E0	4.12E-2	ug/g wet	5.87E0		99.3	80-120			
Duplicate (0J14004-DUP1)				Source: 1009008-01		Prepared: 10/04/10 Analyzed: 10/15/10				
Barium	5.21E1	1.90E0	ug/g dry		3.12E1			50.1	35	
Duplicate (0J14004-DUP2)				Source: 1009027-01		Prepared: 10/04/10 Analyzed: 10/15/10				
Barium	7.69E1	1.77E0	ug/g dry		7.66E1			0.389	35	
Post Spike (0J14004-PS1)				Source: 1009008-01		Prepared: 10/14/10 Analyzed: 10/15/10				
Barium	3.99E2	N/A	ug/L	2.50E2	1.35E2	105	75-125			
Batch 1B02001 - ASTM D 5198 (ICP/ICPMS)										
Blank (1B02001-BLK1)				Prepared: 12/28/10 Analyzed: 02/02/11						
Barium	<4.12E-1	4.12E-1	ug/g wet							
LCS (1B02001-BS1)				Prepared: 12/28/10 Analyzed: 02/02/11						
Barium	5.88E0	4.12E-2	ug/g wet	5.80E0		101	80-120			
Duplicate (1B02001-DUP1)				Source: 1009008-10		Prepared: 12/28/10 Analyzed: 02/02/11				
Barium	1.20E3	1.96E0	ug/g dry		1.36E3			11.9	35	
Post Spike (1B02001-PS1)				Source: 1009008-10		Prepared & Analyzed: 02/02/11				
Barium	5.96E3	N/A	ug/L	2.50E2	5.71E3	98.7	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 0J11002 - 1:1 Water Extract (ICP/ICPMS)

Blank (0J11002-BLK1)

Prepared: 10/06/10 Analyzed: 10/11/10

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 (0J11002-BS1)

Prepared: 10/06/10 Analyzed: 10/11/10

Chromium	4.07E0	3.44E-1	ug/g wet	4.99E0		81.5	80-120			
Arsenic	4.20E0	2.84E-1	"	4.99E0		84.1	80-120			
Selenium	4.21E0	7.92E-1	"	4.99E0		84.3	80-120			
Silver	4.10E0	3.13E-1	"	4.99E0		82.1	80-120			
Cadmium	4.17E0	5.73E-2	"	4.99E0		83.5	80-120			
Lead	4.04E0	1.16E-1	"	4.99E0		81.0	80-120			

Duplicate (0J11002-DUP1)

Source: 1009008-01

Prepared: 10/06/10 Analyzed: 10/11/10

Chromium	<3.22E-3	3.22E-3	ug/g dry		ND					35
Arsenic	9.45E-3	2.65E-3	"		9.25E-3			2.20		35
Selenium	1.69E-2	7.40E-3	"		1.83E-2			7.89		35
Silver	<2.93E-3	2.93E-3	"		ND					35
Cadmium	<5.36E-4	5.36E-4	"		ND					35
Lead	<1.09E-3	1.09E-3	"		ND					35

Post Spike (0J11002-PS1)

Source: 1009008-06

Prepared & Analyzed: 10/11/10

Chromium	4.94E0	N/A	ug/L	5.00E0	3.29E-2	98.2	75-125			
Arsenic	7.10E0	N/A	"	5.00E0	1.70E0	108	75-125			
Selenium	5.76E0	N/A	"	5.00E0	1.14E-1	113	75-125			
Silver	4.85E0	N/A	"	5.00E0	ND	97	75-125			
Cadmium	5.09E0	N/A	"	5.00E0	3.95E-3	102	75-125			
Lead	4.92E0	N/A	"	5.00E0	1.24E-2	98.1	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 1A17001 - 1:1 Water Extract (ICP/ICPMS)

Blank (1A17001-BLK1)

Prepared & Analyzed: 01/17/11

Chromium	<3.44E-3	3.44E-3	ug/g wet							
Arsenic	<1.42E-2	1.42E-2	"							
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 (1A17001-BS1)

Prepared & Analyzed: 01/17/11

Chromium	4.49E0	3.44E-1	ug/g wet	5.00E0		89.8	80-120			
Arsenic	4.61E0	2.84E-1	"	5.00E0		92.2	80-120			
Selenium	4.35E0	7.92E-1	"	5.00E0		87.1	80-120			
Silver	4.57E0	3.13E-1	"	5.00E0		91.4	80-120			
Cadmium	4.49E0	5.73E-2	"	5.00E0		89.9	80-120			
Lead	4.60E0	1.16E-1	"	5.00E0		92.1	80-120			

Duplicate (1A17001-DUP1)

Source: 1009008-10

Prepared & Analyzed: 01/17/11

Chromium	2.14E-2	3.99E-3	ug/g dry		2.15E-2			0.429		35
Arsenic	5.33E-2	1.64E-2	"		3.97E-2			29.3		35
Selenium	<9.16E-3	9.16E-3	"		ND					35
Silver	<3.62E-3	3.62E-3	"		ND					35
Cadmium	<6.63E-4	6.63E-4	"		ND					35
Lead	<1.34E-3	1.34E-3	"		ND					35

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 0J11003 - 1:2.5 Water Extract (ICP/ICPMS)

Blank (0J11003-BLK1)

Prepared: 10/06/10 Analyzed: 12/06/10

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 (0J11003-BS1)

Prepared: 10/06/10 Analyzed: 12/06/10

Chromium	4.59E0	3.44E-1	ug/g wet	5.00E0		91.9	80-120			
Arsenic	4.64E0	2.84E-1	"	5.00E0		92.8	80-120			
Selenium	4.69E0	7.92E-1	"	5.00E0		93.9	80-120			
Silver	4.71E0	3.13E-1	"	5.00E0		94.2	80-120			
Cadmium	4.78E0	5.73E-2	"	5.00E0		95.7	80-120			
Lead	4.82E0	1.16E-1	"	5.00E0		96.4	80-120			

Duplicate (0J11003-DUP1)

Source: 1009008-01

Prepared: 10/06/10 Analyzed: 12/06/10

Chromium	<8.25E-3	8.25E-3	ug/g dry		ND					35
Arsenic	9.86E-3	6.79E-3	"		8.83E-3			11.0		35
Selenium	<1.89E-2	1.89E-2	"		ND					35
Silver	<7.49E-3	7.49E-3	"		ND					35
Cadmium	<1.37E-3	1.37E-3	"		ND					35
Lead	<2.78E-3	2.78E-3	"		ND					35

Post Spike (0J11003-PS1)

Source: 1009008-06

Prepared: 10/11/10 Analyzed: 12/06/10

Chromium	4.83E0	N/A	ug/L	5.00E0	ND	96.7	75-125			
Arsenic	5.94E0	N/A	"	5.00E0	1.03E0	98.2	75-125			
Selenium	5.48E0	N/A	"	5.00E0	2.20E-1	105	75-125			
Silver	4.66E0	N/A	"	5.00E0	1.57E-4	93.3	75-125			
Cadmium	4.90E0	N/A	"	5.00E0	ND	97.9	75-125			
Lead	5.11E0	N/A	"	5.00E0	6.33E-3	102	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 1A17002 - 1:2.5 Water Extract (ICP/ICPMS)

Blank (1A17002-BLK1)

Prepared & Analyzed: 01/17/11

Chromium	<3.44E-3	3.44E-3	ug/g wet							
Arsenic	<1.42E-2	1.42E-2	"							
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 (1A17002-BS1)

Prepared & Analyzed: 01/17/11

Chromium	4.53E0	3.44E-1	ug/g wet	4.99E0		90.7	80-120			
Arsenic	4.64E0	2.84E-1	"	4.99E0		93.0	80-120			
Selenium	4.60E0	7.92E-1	"	4.99E0		92.1	80-120			
Silver	4.52E0	3.13E-1	"	4.99E0		90.6	80-120			
Cadmium	4.46E0	5.73E-2	"	4.99E0		89.4	80-120			
Lead	4.53E0	1.16E-1	"	4.99E0		90.7	80-120			

Duplicate (1A17002-DUP1)

Source: 1009008-10

Prepared & Analyzed: 01/17/11

Chromium	2.22E-2	8.58E-3	ug/g dry		2.13E-2			3.83	35	
Arsenic	9.64E-2	3.53E-2	"		1.05E-1			8.39	35	
Selenium	<1.97E-2	1.97E-2	"		ND				35	
Silver	<7.79E-3	7.79E-3	"		ND				35	
Cadmium	<1.43E-3	1.43E-3	"		ND				35	
Lead	<2.89E-3	2.89E-3	"		ND				35	

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 0J11004 - 1:5 Water Extract (ICP/ICPMS)

Blank (0J11004-BLK1)

Prepared: 10/06/10 Analyzed: 12/06/10

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 (0J11004-BS1)

Prepared: 10/06/10 Analyzed: 12/06/10

Chromium	4.58E0	3.44E-1	ug/g wet	5.00E0		91.6	80-120			
Arsenic	4.52E0	2.84E-1	"	5.00E0		90.4	80-120			
Selenium	4.67E0	7.92E-1	"	5.00E0		93.3	80-120			
Silver	4.60E0	3.13E-1	"	5.00E0		92.1	80-120			
Cadmium	4.70E0	5.73E-2	"	5.00E0		93.9	80-120			
Lead	4.75E0	1.16E-1	"	5.00E0		94.9	80-120			

Duplicate (0J11004-DUP1)

Source: 1009008-01

Prepared: 10/06/10 Analyzed: 12/06/10

Chromium	<1.64E-2	1.64E-2	ug/g dry		ND					35
Arsenic	<1.35E-2	1.35E-2	"		ND					35
Selenium	<3.77E-2	3.77E-2	"		ND					35
Silver	<1.49E-2	1.49E-2	"		ND					35
Cadmium	<2.73E-3	2.73E-3	"		ND					35
Lead	<5.54E-3	5.54E-3	"		ND					35

Post Spike (0J11004-PS1)

Source: 1009008-06

Prepared: 10/11/10 Analyzed: 12/06/10

Chromium	4.75E0	N/A	ug/L	5.00E0	ND	95.5	75-125			
Arsenic	5.43E0	N/A	"	5.00E0	8.01E-1	92.6	75-125			
Selenium	4.94E0	N/A	"	5.00E0	3.15E-2	98.1	75-125			
Silver	4.60E0	N/A	"	5.00E0	1.20E-2	91.8	75-125			
Cadmium	4.94E0	N/A	"	5.00E0	5.09E-4	98.7	75-125			
Lead	5.10E0	N/A	"	5.00E0	7.45E-3	102	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 1A17003 - 1:5 Water Extract (ICP/ICPMS)

Blank (1A17003-BLK1)

Prepared & Analyzed: 01/17/11

Chromium	<3.44E-3	3.44E-3	ug/g wet							
Arsenic	<1.42E-2	1.42E-2	"							
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 (1A17003-BS1)

Prepared & Analyzed: 01/17/11

Chromium	4.77E0	3.44E-1	ug/g wet	5.00E0		95.5	80-120			
Arsenic	4.56E0	2.84E-1	"	5.00E0		91.2	80-120			
Selenium	4.90E0	7.92E-1	"	5.00E0		98.1	80-120			
Silver	4.65E0	3.13E-1	"	5.00E0		93.1	80-120			
Cadmium	4.57E0	5.73E-2	"	5.00E0		91.5	80-120			
Lead	4.64E0	1.16E-1	"	5.00E0		92.9	80-120			

Duplicate (1A17003-DUP1)

Source: 1009008-10

Prepared & Analyzed: 01/17/11

Chromium	2.19E-2	1.43E-2	ug/g dry		2.20E-2			0.548		35
Arsenic	1.35E-1	5.90E-2	"		1.65E-1			20.3		35
Selenium	<3.29E-2	3.29E-2	"		ND					35
Silver	<1.30E-2	1.30E-2	"		ND					35
Cadmium	<2.38E-3	2.38E-3	"		ND					35
Lead	<4.83E-3	4.83E-3	"		ND					35

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 0J11001 - ASTM D 5198 (ICP/ICPMS)

Blank (0J11001-BLK1)

Prepared: 10/04/10 Analyzed: 10/11/10

Chromium	<9.42E-2	9.42E-2	ug/g wet							
Arsenic	<4.10E-2	4.10E-2	"							
Selenium	<7.93E-2	7.93E-2	"							
Silver	<2.56E-3	2.56E-3	"							
Cadmium	<6.77E-3	6.77E-3	"							
Lead	<2.57E-2	2.57E-2	"							

LCS (0J11001-BS1)

Prepared: 10/04/10 Analyzed: 10/11/10

Chromium	5.56E0	9.42E-1	ug/g wet	5.87E0		94.7	80-120			
Arsenic	5.60E0	4.10E-1	"	5.87E0		95.4	80-120			
Selenium	5.68E0	7.93E-1	"	5.87E0		96.7	80-120			
Silver	5.46E0	2.56E-2	"	5.87E0		93.0	80-120			
Cadmium	5.64E0	6.77E-2	"	5.87E0		96.0	80-120			
Lead	5.68E0	2.57E-1	"	5.87E0		96.7	80-120			

Duplicate (0J11001-DUP1)

Source: 1009008-01

Prepared: 10/04/10 Analyzed: 10/11/10

Chromium	8.74E0	4.35E-1	ug/g dry		4.52E0			63.6	35	
Arsenic	8.06E-1	1.89E-1	"		4.56E-1			55.5	35	
Selenium	<3.66E-1	3.66E-1	"		ND				35	
Silver	7.55E-2	1.18E-2	"		6.20E-2			19.6	35	
Cadmium	<3.13E-2	3.13E-2	"		ND				35	
Lead	3.62E0	1.19E-1	"		2.83E0			24.2	35	

Duplicate (0J11001-DUP2)

Source: 1009027-01

Prepared: 10/04/10 Analyzed: 10/11/10

Chromium	8.89E0	4.05E-1	ug/g dry		8.84E0			0.542	35	
Arsenic	1.80E0	1.76E-1	"		2.42E0			29.3	35	
Selenium	<3.41E-1	3.41E-1	"		ND				35	
Silver	5.10E-2	1.10E-2	"		5.16E-2			1.18	35	
Cadmium	7.93E-2	2.91E-2	"		1.05E-1			28.1	35	
Lead	5.32E0	1.10E-1	"		8.89E0			50.3	35	

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 0J11001 - ASTM D 5198 (ICP/ICPMS)

Post Spike (0J11001-PS1)	Source: 1009008-06			Prepared & Analyzed: 10/11/10						
Chromium	3.28E1	N/A	ug/L	5.00E0	2.82E1	91.7	75-125			
Arsenic	8.74E0	N/A	"	5.00E0	3.86E0	97.6	75-125			
Selenium	4.89E0	N/A	"	5.00E0	7.07E-2	96.3	75-125			
Silver	4.75E0	N/A	"	5.00E0	4.98E-1	85	75-125			
Cadmium	5.78E0	N/A	"	5.00E0	1.21E0	91.4	75-125			
Lead	2.10E1	N/A	"	5.00E0	1.76E1	67.9	75-125			

Batch 1A20001 - ASTM D 5198 (ICP/ICPMS)

Blank (1A20001-BLK1)	Prepared & Analyzed: 01/20/11									
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 (1A20001-BS1)	Prepared & Analyzed: 01/20/11									
Chromium	5.30E0	9.42E-1	ug/g wet	5.80E0		91.5	80-120			
Arsenic	5.84E0	4.10E-1	"	5.80E0		101	80-120			
Selenium	5.29E0	7.93E-1	"	5.80E0		91.3	80-120			
Silver	5.40E0	2.56E-2	"	5.80E0		93.3	80-120			
Cadmium	5.40E0	6.77E-2	"	5.80E0		93.3	80-120			
Lead	5.52E0	2.57E-1	"	5.80E0		95.3	80-120			

Duplicate (1A20001-DUP1)	Source: 1009008-10			Prepared & Analyzed: 01/20/11						
Chromium	8.41E0	8.96E-1	ug/g dry		1.10E1			27.0	35	
Arsenic	8.27E0	3.90E-1	"		9.71E0			15.9	35	
Selenium	<7.54E-1	7.54E-1	"		ND				35	
Silver	<2.44E-2	2.44E-2	"		ND				35	
Cadmium	<6.44E-2	6.44E-2	"		ND				35	
Lead	4.35E0	2.44E-1	"		5.10E0			15.8	35	

Strontium 90/Acid Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J07001 - ASTM D 5198 (RadChem)										
Blank (0J07001-BLK1)				Prepared: 10/07/10 Analyzed: 10/15/10						
Strontium-90	<2.66E-1	2.66E-1	pCi/g wet							
LCS (0J07001-BS1)				Prepared: 10/07/10 Analyzed: 10/15/10						
Strontium-90	9.45E1	2.66E-1	pCi/g wet	9.69E1		97.5	80-120			
Duplicate (0J07001-DUP1)				Source: 1009008-01 Prepared: 10/07/10 Analyzed: 10/15/10						
Strontium-90	<9.09E-1	9.09E-1	pCi/g dry		ND				35	
Duplicate (0J07001-DUP2)				Source: 1009027-01 Prepared: 10/07/10 Analyzed: 10/15/10						
Strontium-90	<9.04E-1	9.04E-1	pCi/g dry		ND				35	
Matrix Spike (0J07001-MS1)				Source: 1009008-01 Prepared: 10/07/10 Analyzed: 10/15/10						
Strontium-90	9.43E1	2.66E-1	pCi/g dry	1.02E2	ND	97.5	75-125			
Batch 1A05001 - ASTM D 5198 (RadChem)										
Blank (1A05001-BLK1)				Prepared: 01/05/11 Analyzed: 01/12/11						
Strontium-90	<3.21E-1	3.21E-1	pCi/g wet							
LCS (1A05001-BS1)				Prepared: 01/05/11 Analyzed: 01/12/11						
Strontium-90	8.97E1	3.21E-1	pCi/g wet	9.63E1		93.1	80-120			
Duplicate (1A05001-DUP1)				Source: 1009008-10 Prepared: 01/05/11 Analyzed: 01/12/11						
Strontium-90	<1.10E0	1.10E0	pCi/g dry		ND				35	
Matrix Spike (1A05001-MS1)				Source: 1009008-10 Prepared: 01/05/11 Analyzed: 01/12/11						
Strontium-90	1.91E2	3.21E-1	pCi/g dry	2.05E2	ND	93.6	75-125			

Strontium 90/1:1 Water Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J07010 - 1:1 Water Extract (RadChem)										
Blank (0J07010-BLK1)				Prepared: 10/07/10 Analyzed: 10/15/10						
Strontium-90	<9.31E-1	9.31E-1	pCi/g wet							
LCS (0J07010-BS1)				Prepared: 10/07/10 Analyzed: 10/15/10						
Strontium-90	9.52E1	9.31E-1	pCi/g wet	9.69E1		98.3	80-120			
Duplicate (0J07010-DUP1)				Source: 1009008-01 Prepared: 10/07/10 Analyzed: 10/15/10						
Strontium-90	<8.70E-1	8.70E-1	pCi/g dry		ND					35
Matrix Spike (0J07010-MS1)				Source: 1009008-01 Prepared: 10/07/10 Analyzed: 10/15/10						
Strontium-90	9.53E1	1.58E0	pCi/g dry	1.02E2	ND	98.7	75-125			
Batch 1A06003 - 1:1 Water Extract (RadChem)										
Blank (1A06003-BLK1)				Prepared: 01/06/11 Analyzed: 01/12/11						
Strontium-90	<1.12E0	1.12E0	pCi/g wet							
LCS (1A06003-BS1)				Prepared: 01/06/11 Analyzed: 01/12/11						
Strontium-90	9.41E1	1.12E0	pCi/g wet	9.63E1		97.7	80-120			
Duplicate (1A06003-DUP1)				Source: 1009008-10 Prepared: 01/06/11 Analyzed: 01/12/11						
Strontium-90	<1.30E0	1.30E0	pCi/g dry		ND					35
Matrix Spike (1A06003-MS1)				Source: 1009008-10 Prepared: 01/06/11 Analyzed: 01/12/11						
Strontium-90	9.36E1	1.98E0	pCi/g dry	1.02E2	ND	92	75-125			

Strontium 90/1:2.5 Water Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J07011 - 1:2.5 Water Extract (RadChem)										
Blank (0J07011-BLK1)				Prepared & Analyzed: 11/15/10						
Strontium-90	<9.31E-1	9.31E-1	pCi/g wet							
LCS (0J07011-BS1)				Prepared & Analyzed: 11/15/10						
Strontium-90	9.36E1	9.31E-1	pCi/g wet	9.67E1		96.9	80-120			
Duplicate (0J07011-DUP1)				Source: 1009008-01		Prepared & Analyzed: 11/15/10				
Strontium-90	<2.23E0	2.23E0	pCi/g dry			ND				35
Matrix Spike (0J07011-MS1)				Source: 1009008-01		Prepared & Analyzed: 11/15/10				
Strontium-90	9.69E1	1.58E0	pCi/g dry	1.02E2	ND	99.2	75-125			
Batch 1A07003 - 1:2.5 Water Extract (RadChem)										
Blank (1A07003-BLK1)				Prepared: 01/07/11 Analyzed: 01/17/11						
Strontium-90	<1.11E0	1.11E0	pCi/g wet							
LCS (1A07003-BS1)				Prepared: 01/07/11 Analyzed: 01/17/11						
Strontium-90	9.40E1	1.11E0	pCi/g wet	9.63E1		97.6	80-120			
Duplicate (1A07003-DUP1)				Source: 1009008-10		Prepared: 01/07/11 Analyzed: 01/17/11				
Strontium-90	<2.76E0	2.76E0	pCi/g dry			ND				35
Matrix Spike (1A07003-MS1)				Source: 1009008-10		Prepared: 01/07/11 Analyzed: 01/17/11				
Strontium-90	9.30E1	1.95E0	pCi/g dry	1.02E2	7.11E-1	90.2	75-125			


Strontium 90/1:5 Water Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J07012 - 1:5 Water Extract (RadChem)										
Blank (0J07012-BLK1)				Prepared: 10/07/10 Analyzed: 10/15/10						
Strontium-90	<9.31E-1	9.31E-1	pCi/g wet							
LCS (0J07012-BS1)				Prepared: 10/07/10 Analyzed: 10/15/10						
Strontium-90	9.53E1	9.31E-1	pCi/g wet	9.69E1		98.4	80-120			
Duplicate (0J07012-DUP1)				Source: 1009008-01 Prepared: 10/07/10 Analyzed: 10/15/10						
Strontium-90	<4.43E0	4.43E0	pCi/g dry		ND				35	
Matrix Spike (0J07012-MS1)				Source: 1009008-01 Prepared: 10/07/10 Analyzed: 10/15/10						
Strontium-90	9.88E1	1.58E0	pCi/g dry	1.02E2	ND	101	75-125			
Batch 1A10006 - 1:5 Water Extract (RadChem)										
Blank (1A10006-BLK1)				Prepared: 01/10/11 Analyzed: 01/17/11						
Strontium-90	<1.11E0	1.11E0	pCi/g wet							
LCS (1A10006-BS1)				Prepared: 01/10/11 Analyzed: 01/17/11						
Strontium-90	9.40E1	1.11E0	pCi/g wet	9.63E1		97.6	80-120			
Duplicate (1A10006-DUP1)				Source: 1009008-10 Prepared: 01/10/11 Analyzed: 01/17/11						
Strontium-90	<4.61E0	4.61E0	pCi/g dry		ND				35	
Matrix Spike (1A10006-MS1)				Source: 1009008-10 Prepared: 01/10/11 Analyzed: 01/17/11						
Strontium-90	9.17E1	1.95E0	pCi/g dry	1.02E2	ND	91.1	75-125			

Strontium 90 - Quality Control		
Batch 0J07001- ASTM D 5198 (RadChem)		
Sample ID	HEIS ID	Tracer Recovery
1009008-01	B274K7	94.9%
1009008-02	B273B8	94.3%
1009008-03	B27PY0	94.2%
1009008-04	B274K6	92.7%
1009008-05	B26TC1	92.7%
1009008-06	B26TC2	95.5%
1009008-07	B273B2	95.2%
1009008-08	B273B3	93.8%
1009008-09	B273B4	93.6%
1009008-10	B273B6	94.6%
1009008-11	B273B5	93.4%
Strontium 90 - Quality Control		
Batch 0J07010 - 1:1 Water Extract (RadChem)		
Sample ID	HEIS ID	Tracer Recovery
1009008-01	B274K7	93.0%
1009008-02	B273B8	93.3%
1009008-03	B27PY0	91.7%
1009008-04	B274K6	91.6%
1009008-05	B26TC1	92.4%
1009008-06	B26TC2	92.8%
1009008-07	B273B2	90.7%
1009008-08	B273B3	91.5%
1009008-09	B273B4	91.0%
1009008-10	B273B6	92.0%
1009008-11	B273B5	91.0%
Strontium 90 - Quality Control		
Batch 0J07011 - 1:2.5 Water Extract (RadChem)		
Sample ID	HEIS ID	Tracer Recovery
1009008-01	B274K7	89.4%
1009008-02	B273B8	91.0%
1009008-03	B27PY0	90.6%
1009008-04	B274K6	92.3%
1009008-05	B26TC1	90.8%
1009008-06	B26TC2	90.6%
1009008-07	B273B2	91.1%
1009008-08	B273B3	90.9%
1009008-09	B273B4	92.4%
1009008-10	B273B6	90.0%
1009008-11	B273B5	90.5%
Strontium 90 - Quality Control		
Batch 0J07012 - 1:5 Water Extract (RadChem)		
Sample ID	HEIS ID	Tracer Recovery
1009008-01	B274K7	90.7%
1009008-02	B273B8	91.4%
1009008-03	B27PY0	91.3%
1009008-04	B274K6	91.2%
1009008-05	B26TC1	91.5%
1009008-06	B26TC2	91.9%
1009008-07	B273B2	89.6%
1009008-08	B273B3	91.6%
1009008-09	B273B4	90.4%
1009008-10	B273B6	92.5%
1009008-11	B273B5	90.2%

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F10-234-026	PAGE 1 OF 1
COLLECTOR <i>Turner, Crow</i>	COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7791 (199-F5-53); Bottom non-water-bearing RUM	PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100- FR-3 Soils		SAF NO. F10-234	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO. <i>HNF-N-595-14 p6, 27</i>	ACTUAL SAMPLE DEPTH <i>102.5-105 FT</i>	COA 300118ES10	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		1000mL
		SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS
		KD - Batch (No CAS);		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B273B6	SOIL	<i>11/29/10</i>	<i>0950</i>	<i>A</i>


CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM <i>A. Turner</i>	DATE/TIME <i>11-29-10 1055</i>	RECEIVED BY/STORED IN <i>MO-413 SSU-R1</i>	DATE/TIME <i>11-29-10 1055</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>DEC 02 2010 0730</i>	RECEIVED BY/STORED IN <i>M. A. White</i>	DATE/TIME <i>DEC 02 2010 0730</i>		
RELINQUISHED BY/REMOVED FROM <i>M. A. White</i>	DATE/TIME <i>DEC 02 2010 0905</i>	RECEIVED BY/STORED IN <i>Igor Kudryakov</i>	DATE/TIME <i>DEC 02 2010 0905</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 # ESL090018

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-234-032	PAGE 1 OF 1
COLLECTOR <i>Turner, DL</i>		COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7791 (199-F5-53); Middle non-water-bearing RUM		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100- FR-3 Soils		SAF NO. F10-234	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.		FIELD LOGBOOK NO. <i>HNF-11-585-12 pg 33</i>	ACTUAL SAMPLE DEPTH <i>81.8-84.3 ft</i>	COA 300118ES10	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	1000mL	
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	KD - Batch (No CAS);	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B273B5	SOIL	11-22-10	1110	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM <i>A. Turner</i>	DATE/TIME <i>11-22-10 1215</i>	RECEIVED BY/STORED IN <i>MO-413 SSU-R1</i>	DATE/TIME <i>11-22-10 1215</i>	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.	
RELINQUISHED BY/REMOVED FROM <i>SSU-R1</i>	DATE/TIME <i>DEC 02 2010 0730</i>	RECEIVED BY/STORED IN <i>M.A. White</i>	DATE/TIME <i>DEC 02 2010 0730</i>	<i>BRM # 13564</i>  ORIGINAL	
RELINQUISHED BY/REMOVED FROM <i>M. A. White</i>	DATE/TIME <i>DEC 02 2010 9:05</i>	RECEIVED BY/STORED IN <i>Igor Kudryakov</i>	DATE/TIME <i>DEC 02 2010 9:05</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			F10-234-038	PAGE 1 OF 1
COLLECTOR <i>Crow</i>		COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7791 (199-F5-53); Top non-water-bearing RUM DUP		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100- FR-3 Soils		SAF NO. F10-234	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. <i>N/A</i>		FIELD LOGBOOK NO. <i>HNF-N-588 14</i>	ACTUAL SAMPLE DEPTH <i>55.1' - 57.6'</i>	COA 300118ES10	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 <i>✓</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	
B273B4	SOIL	11-15-10	0830	<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>BRM # 13564</i>
<i>RCrow/RCrow</i>	<i>11-15-10 1000</i>	<i>SSU-RA</i>	<i>NOV 14 2010 1000</i>	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
<i>SSU-RA</i>	<i>11-16-10 0700</i>	<i>cm Aguilar cm Aguilar</i>	<i>11-16-10 0700</i>	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
<i>cm Aguilar cm Aguilar</i>	<i>11-16-10 8:40</i>	<i>Igor Kutnyakov</i>	<i>11-16-10 8:40</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

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-234-035	PAGE 1 OF 1
COLLECTOR <i>Crow</i>	COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL		PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7791 (199-F5-53); Top non-water-bearing RUM	PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100- FR-3 Soils		SAF NO. F10-234		AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. <i>N/A</i>	FIELD LOGBOOK NO. <i>HNF-N-585 14</i>	ACTUAL SAMPLE DEPTH <i>55.1'-57.6'</i>		COA 300118ES10	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 <i>3</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	
B273B3	SOIL	11-15-10	0830	/


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>B.R.M # 13,564</i> ORIGINAL
<i>R Crow/R Crow</i>	<i>11-15-10 1000</i>	<i>SSU-R4</i>	<i>NOV 14 2010 1000</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 Calh</i>	<i>11-16-10 0700</i>	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
<i>cm Aguilar/cm Calh</i>	<i>11-16-10 8:40</i>	<i>Lyne Kuyaliv</i>	<i>11-16-10 8:40</i>	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
		<i>Igor Kuyaliv</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		F10-234-029	PAGE 1 OF 1
COLLECTOR <i>T. Turner</i>	COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7791 (199-F5-53); Bottom unconfined aquifer	PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100- FR-3 Soils		SAF NO. F10-234	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. <i>N/A</i>	FIELD LOGBOOK NO. <i>HNF-N-585-14 pg 25</i>	ACTUAL SAMPLE DEPTH <i>52.3'</i>	COA 300118ES10	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 <i>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	
B273B2	SOIL	11-11-10	0850	<i>/</i>

~~BRM#~~


CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM <i>A. Turner</i>	DATE/TIME <i>11-11-10 1445</i>	RECEIVED BY/STORED IN <i>SSU-R4</i>	DATE/TIME <i>11-11-10 1445</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-R4</i>	DATE/TIME <i>11-14-10 0700</i>	RECEIVED BY/STORED IN <i>cm Aquilar cm Galt</i>	DATE/TIME <i>11-16-10 8140</i>		
RELINQUISHED BY/REMOVED FROM <i>cm Aquilar cm Galt</i>	DATE/TIME <i>11-16-10 8140</i>	RECEIVED BY/STORED IN <i>Igor Kuchayakov</i>	DATE/TIME <i>11-16-10 8140</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# ESL 090018

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-234-042	PAGE 1 OF 1
COLLECTOR <i>Turner, Southurland</i>		COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7792 (199-F5-54); 5 feet into RUM		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100- FR-3 Soils		SAF NO. F10-234	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.		FIELD LOGBOOK NO. <i>HNF-N-585-14 Pg#19</i>	ACTUAL SAMPLE DEPTH <i>74.9-77.4 Ft</i>	COA 300118ES10	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 <i>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	
B274K7	SOIL	9-1-10	1026	X


CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM <i>Southurland</i>	DATE/TIME <i>9-1-10/1150</i>	RECEIVED BY/STORED IN <i>mo413 SSUR1</i>	DATE/TIME <i>9-1-10 / 1150</i>	** The CACN for all analytical work at WSCF laboratory is 401922ES20. <input type="checkbox"/> ** 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>SEP 01 2010 1300</i>	RECEIVED BY/STORED IN <i>malwhite malwhite</i>	DATE/TIME <i>SEP 01 2010 1300</i>		
RELINQUISHED BY/REMOVED FROM <i>malwhite malwhite</i>	DATE/TIME <i>SEP 01 2010 15:00</i>	RECEIVED BY/STORED IN <i>Ben Williams Ben Williams</i>	DATE/TIME <i>SEP 01 2010 1500</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

SDB# ESLO90018

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-234-044	PAGE 1 OF 1
COLLECTOR Turner, Southerland		COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7792 (199-F5-54); Add on 1		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100- FR-3 Soils		SAF NO. F10-234	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.		FIELD LOGBOOK NO. HNF-N-585-14 pg #17	ACTUAL SAMPLE DEPTH 63.9 - 66.4 Ft	COA 300118ES10	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=Sédiment 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 2
		NO. OF CONTAINER(S)		1
		VOLUME		1000mL
		SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B273B8	SOIL	8-30-10	1216	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM Southerland/Dahl	DATE/TIME 8-30-10/1340	RECEIVED BY/STORED IN M0413 SSU R1	DATE/TIME 8-30-10/1340	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. BRM #13564 
RELINQUISHED BY/REMOVED FROM SSU-R1	DATE/TIME SEP 01 2010 1300	RECEIVED BY/STORED IN Mawhite/Malota	DATE/TIME SEP 01 2010 1300	
RELINQUISHED BY/REMOVED FROM Mawhite/Malota	DATE/TIME SEP 01 2010 1500	RECEIVED BY/STORED IN Ben Williams/Bell	DATE/TIME SEP 01 2010 1500	
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			F10-234-047	PAGE 1 OF 1
COLLECTOR Turner, Southland		COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7792 (199-F5-54); Add on 2		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100- FR-3 Soils		SAF NO. F10-234	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.		FIELD LOGBOOK NO. HNF-N-585-14 PG# 18	ACTUAL SAMPLE DEPTH 67.0 - 69.5 Ft	COA 300118ES10	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 2
		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	
B27PY0	SOIL	8-31-10	0857	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM S Southland / [Signature]	DATE/TIME 8-31-10/1200	RECEIVED BY/STORED IN M0413 SSURI	DATE/TIME 8-31-10/1200	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. BRM # 13564 
RELINQUISHED BY/REMOVED FROM SSU-R1	DATE/TIME SEP 01 2010 1300	RECEIVED BY/STORED IN M0413 SSURI	DATE/TIME SEP 01 2010 1300	
RELINQUISHED BY/REMOVED FROM [Signature]	DATE/TIME SEP 01 2010 1500	RECEIVED BY/STORED IN Ben Williams	DATE/TIME SEP 01 2010 1500	
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			F10-234-041	PAGE 1 OF 1
COLLECTOR <i>Turner, Crow</i>		COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7792 (199-F5-54); Bottom unconfined aquifer		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100- FR-3 Soils		SAF NO. F10-234	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.		FIELD LOGBOOK NO. <i>HNF-N585-14 1615</i>	ACTUAL SAMPLE DEPTH <i>57-59 ft</i>	COA 300118ES10	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 <i>3</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	
B274K6	SOIL	<i>8/26/10</i>	<i>1400</i>	<i>X</i>

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM <i>A. Turner</i>	DATE/TIME <i>8-26-10 1525</i>	RECEIVED BY/STORED IN <i>MO-413 SSU-R1</i>	DATE/TIME <i>8/26/10 1525</i>	** The CACN for all analytical work at WSCF laboratory is 401922ES20. <input type="checkbox"/> ** 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>AUG 30 2010 1230</i>	RECEIVED BY/STORED IN <i>M. A. White</i>	DATE/TIME <i>AUG 30 2010 1230</i>		
RELINQUISHED BY/REMOVED FROM <i>M. A. White</i>	DATE/TIME <i>AUG 30 2010 1400</i>	RECEIVED BY/STORED IN <i>Ben Williams</i>	DATE/TIME <i>8/30/10 1400</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

SDG #090018

CH2Mhill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-234-009	PAGE 1 OF 1
COLLECTOR <i>Holms, Bates, Ramirez</i>		COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7790 (199-F5-52); Bottom of Unconfined Aquifer		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100- FR-3 Soils		SAF NO. F10-234	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. <i>N/A</i>		FIELD LOGBOOK NO. <i>HAF-N-544-14 page 8</i>	ACTUAL SAMPLE DEPTH <i>69.3 - 65.8</i>	COA 300118ES10	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 <i>Z</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	
B26TC1	SOIL	<i>8/13/10</i>	<i>1225</i>	


CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM <i>DeBates</i>	DATE/TIME <i>8/13/10</i>	RECEIVED BY/STORED IN <i>MO-417-554-R2</i>	DATE/TIME <i>8/13/10</i>	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. <i>BRM#13564</i> Original <i>ans</i> 8-16-10. per R. Ramirez	
RELINQUISHED BY/REMOVED FROM <i>SSU 22</i>	DATE/TIME <i>AUG 15 2010 1240</i>	RECEIVED BY/STORED IN <i>J.F. Aguilar</i>	DATE/TIME <i>AUG 15 2010 1240</i>		
RELINQUISHED BY/REMOVED FROM <i>J.F. Aguilar</i>	DATE/TIME <i>AUG 15 2010 1445</i>	RECEIVED BY/STORED IN <i>Ben Williams</i>	DATE/TIME <i>AUG 15 2010 1445</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

SD6# ESLO90018

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-234-010	PAGE 1 OF 1
COLLECTOR <i>Helms, Bates</i>		COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7790 (199-F5-52); 5 feet into RUM		PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100- FR-3 Soils		SAF NO. F10-234	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. <i>08 4/16</i> <i>A/A</i>		FIELD LOGBOOK NO. <i>HMF-N-545-4 Page 7</i>	ACTUAL SAMPLE DEPTH <i>71.3 - 73.8</i>	COA 300118ES10	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 <i>2</i>
		VOLUME	1000mL
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	KD - Batch (No CAS);
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B26TC2	SOIL	<i>8/16/10</i>	<i>1000</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>BRM #13564</i> 
<i>Date Bates DL 8/16/10</i>	<i>1130</i>	<i>MO-413-554-2111</i>	<i>8/16/10 1130</i>	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
<i>MA White MA 8/18/10</i>	<i>1400</i>	<i>MA White MA 8/18/10</i>	<i>1400</i>	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
<i>MA White MA 8/18/10</i>	<i>15:15</i>	<i>Ben Williams Paul Williams</i>	<i>8-18-10 15:15</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 # ESL-090018