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U.S. DEPARTMENT OF ENERGY

PNNL- 20352

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ESL090019 KB 4-27-11

100-BC-5 Operable Unit, Batch Leach Analyses and Report for Sediments at RI/FS Wells C7508, C7783, C7784, C7785, and C7787

Michael Lindberg

April 2011

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SDM Disclaimer

The data herein cannot be reconciled by Sample Data Management (SDM) against the analytical requests on the submitted Chains of Custody, due to the nature of Environmental Sciences Laboratory (ESL) special studies. ESL scientists choose and analyze samples at their own discretion which may or may not reflect the planned analysis generated by SDM.

REVISION 1

04/25/11 16:36

To: Anna Radloff

From: Michael J. Lindberg

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

Subject: Analytical Data Report for Sediment Samples Collected From 100-BC Decision Unit Soil, Sample Delivery Group ESL090019, SAF Number F10-225

This report contains the updated dates for samples associated with Hexavalent Chromium/Soil analysis. The analysis dates for samples B26FB7, B26HR6, B26J55, B26J56, B27N91, B27NB1, B27NB5 B27NB9, B27NC3, B27NC7, B27ND1, B27ND5, B27ND9, and B27NF3 were changed from 3/29/2010 to 3/29/2011.

This letter contains the following information for sample delivery group ESL090019

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

Introduction

Between August 24, 2010 and March 3, 2011 sediment samples were received from 100-BC Decision Unit Soil for geochemical studies.

Analytical Results/Methodology

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

Quality Control

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

Definitions

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

Sample Receipt

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

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

Holding Times

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

Analytical Results

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

Case Narrative Report

Hold Time:

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

Preparation Blank (PB):

No discrepancies noted.

Duplicate (DUP):

Duplicate RPD for Arsenic (55.5%) was above the acceptance limit (35) in 0J11001-DUP1 for ICPMS-RCRA-AE
The sample result is less than 10 times the detection limits. Duplicate recoveries are not applicable to this analyte.

Duplicate RPD for Chromium (63.6%) was above the acceptance limit (35) in 0J11001-DUP1 for ICPMS-RCRA-AE
The sample result is less than 10 times the detection limits. Duplicate recoveries are not applicable to this analyte.

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):

No discrepancies noted.

Matrix Spike (MS):

Matrix Spike Recovery for Chromium, Hexavalent (60.8%) was outside acceptance limits (75-125) in 1A14001-MS1 for Hexavalent Chromium/Soil
Potential Matrix interference. Sample results associated with this batch are below the EQL. There should be no impact to the data as reported.

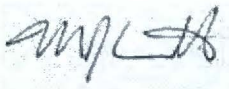
Matrix Spike Recovery for Chromium, Hexavalent (70.4%) was outside acceptance limits (75-125) in 1C30002-MS1 for Hexavalent Chromium/Soil
Potential Matrix interference. Sample results associated with this batch are below the EQL. There should be no impact to the data as reported.

Other QC Criteria:

No discrepancies noted.

Case Narrative Report

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



Michael Lindberg

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SAMPLES INCLUDED IN THIS REPORT

100-BC Decision Unit-Soil

HEIS No.	Laboratory ID	Matrix	Date Collected	Date Received
B26FB7	1009027-01	SOIL	8/23/10 08:00	8/24/10 10:30
B26HR6	1009027-02	SOIL	8/23/10 10:30	8/24/10 10:30
B26J55	1009027-03	SOIL	11/5/10 13:00	11/11/10 13:30
B26J56	1009027-04	SOIL	11/5/10 14:50	11/11/10 13:30
B27N91	1009027-05	SOIL	12/3/10 09:30	12/6/10 13:20
B27NB1	1009027-06	SOIL	12/6/10 12:45	12/8/10 13:10
B27NB5	1009027-07	SOIL	12/6/10 14:35	12/8/10 13:10
B27NB9	1009027-08	SOIL	12/7/10 12:10	12/8/10 13:10
B27NC3	1009027-09	SOIL	12/13/10 08:20	12/14/10 13:00
B27NC7	1009027-10	SOIL	12/13/10 13:00	12/14/10 13:00
B27ND1	1009027-11	SOIL	12/14/10 08:35	12/14/10 13:00
B27ND5	1009027-12	SOIL	12/14/10 13:25	12/17/10 13:00
B27ND9	1009027-13	SOIL	12/15/10 10:15	12/17/10 13:00
B27NF3	1009027-14	SOIL	12/15/10 14:00	12/17/10 13:00
B274V7	1009027-15	SOIL	2/10/11 10:20	2/17/11 13:30
B274V8	1009027-16	SOIL	2/15/11 10:10	2/17/11 13:30
B26RF8	1009027-17	SOIL	3/2/11 09:45	3/3/11 13:30
B26RF9	1009027-18	SOIL	3/2/11 12:45	3/3/11 13:30

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
B26FB7	1009027-01	SOIL	8/23/10 08:00	8/24/10 10:30
B26HR6	1009027-02	SOIL	8/23/10 10:30	8/24/10 10:30
B26J55	1009027-03	SOIL	11/5/10 13:00	11/11/10 13:30
B26J56	1009027-04	SOIL	11/5/10 14:50	11/11/10 13:30
B27N91	1009027-05	SOIL	12/3/10 09:30	12/6/10 13:20
B27NB1	1009027-06	SOIL	12/6/10 12:45	12/8/10 13:10
B27NB5	1009027-07	SOIL	12/6/10 14:35	12/8/10 13:10
B27NB9	1009027-08	SOIL	12/7/10 12:10	12/8/10 13:10
B27NC3	1009027-09	SOIL	12/13/10 08:20	12/14/10 13:00
B27NC7	1009027-10	SOIL	12/13/10 13:00	12/14/10 13:00
B27ND1	1009027-11	SOIL	12/14/10 08:35	12/14/10 13:00
B27ND5	1009027-12	SOIL	12/14/10 13:25	12/17/10 13:00
B27ND9	1009027-13	SOIL	12/15/10 10:15	12/17/10 13:00
B27NF3	1009027-14	SOIL	12/15/10 14:00	12/17/10 13:00
B274V7	1009027-15	SOIL	2/10/11 10:20	2/17/11 13:30
B274V8	1009027-16	SOIL	2/15/11 10:10	2/17/11 13:30
B26RF8	1009027-17	SOIL	3/2/11 09:45	3/3/11 13:30
B26RF9	1009027-18	SOIL	3/2/11 12:45	3/3/11 13:30

Wet Chemistry

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1009027-01	B26FB7	2.65E1	N/A	10/05/10	0I29004
1009027-02	B26HR6	2.62E1	N/A	10/05/10	0I29004
1009027-03	B26J55	2.40E1	N/A	12/30/10	0L27001
1009027-04	B26J56	1.32E1	N/A	12/30/10	0L27001
1009027-05	B27N91	1.58E1	N/A	12/30/10	0L27001
1009027-06	B27NB1	2.16E1	N/A	12/30/10	0L27001
1009027-07	B27NB5	2.13E1	N/A	12/30/10	0L27001
1009027-08	B27NB9	3.91E0	N/A	12/30/10	0L27001
1009027-09	B27NC3	2.69E1	N/A	12/30/10	0L27001
1009027-10	B27NC7	1.83E1	N/A	12/30/10	0L27001
1009027-11	B27ND1	9.83E0	N/A	12/30/10	0L27001
1009027-12	B27ND5	1.01E1	N/A	12/30/10	0L27001
1009027-13	B27ND9	1.12E1	N/A	12/30/10	0L27001
1009027-14	B27NF3	1.41E1	N/A	12/30/10	0L27001
1009027-15	B274V7	1.27E1	N/A	3/16/11	1C15003
1009027-16	B274V8	1.66E1	N/A	3/16/11	1C15003
1009027-17	B26RF8	1.87E1	N/A	3/16/11	1C15003
1009027-18	B26RF9	1.63E1	N/A	3/16/11	1C15003

Hexavalent Chromium/Soil

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1009027-01	B26FB7	<6.30E-1	6.30E-1	3/29/11	0J14008
1009027-02	B26HR6	<6.32E-1	6.32E-1	3/29/11	0J14008
1009027-03	B26J55	<6.18E-1	6.18E-1	3/29/11	1A14001
1009027-04	B26J56	<5.62E-1	5.62E-1	3/29/11	1A14001
1009027-05	B27N91	<5.83E-1	5.83E-1	3/29/11	1A14001
1009027-06	B27NB1	<6.02E-1	6.02E-1	3/29/11	1A14001
1009027-07	B27NB5	<6.04E-1	6.04E-1	3/29/11	1A14001
1009027-08	B27NB9	<5.14E-1	5.14E-1	3/29/11	1A14001
1009027-09	B27NC3	<6.39E-1	6.39E-1	3/29/11	1A14001
1009027-10	B27NC7	<5.94E-1	5.94E-1	3/29/11	1A14001
1009027-11	B27ND1	<5.46E-1	5.46E-1	3/29/11	1A14001
1009027-12	B27ND5	<5.48E-1	5.48E-1	3/29/11	1A14001
1009027-13	B27ND9	<5.58E-1	5.58E-1	3/29/11	1A14001
1009027-14	B27NF3	<5.71E-1	5.71E-1	3/29/11	1A14001
1009027-15	B274V7	<5.59E-1	5.59E-1	3/29/11	1C30002
1009027-16	B274V8	<5.84E-1	5.84E-1	3/29/11	1C30002
1009027-17	B26RF8	<5.90E-1	5.90E-1	3/29/11	1C30002
1009027-18	B26RF9	<5.79E-1	5.79E-1	3/29/11	1C30002

Hexavalent Chromium/1:1 Water Extract

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1009027-01	B26FB7	<3.67E-2	3.67E-2	10/11/10	0J11006
1009027-02	B26HR6	<3.69E-2	3.69E-2	10/11/10	0J11006
1009027-03	B26J55	<3.80E-2	3.80E-2	1/07/11	1A06002
1009027-04	B26J56	<4.36E-2	4.36E-2	1/07/11	1A06002
1009027-05	B27N91	<4.15E-2	4.15E-2	1/07/11	1A06002
1009027-06	B27NB1	<4.09E-2	4.09E-2	1/07/11	1A06002
1009027-07	B27NB5	<4.48E-2	4.48E-2	1/07/11	1A06002
1009027-08	B27NB9	<5.03E-2	5.03E-2	1/07/11	1A06002
1009027-09	B27NC3	<6.33E-2	6.33E-2	1/07/11	1A06002
1009027-10	B27NC7	<4.07E-2	4.07E-2	1/07/11	1A06002
1009027-11	B27ND1	<4.51E-2	4.51E-2	1/07/11	1A06002
1009027-12	B27ND5	<4.52E-2	4.52E-2	1/07/11	1A06002
1009027-13	B27ND9	<5.22E-2	5.22E-2	1/07/11	1A06002
1009027-14	B27NF3	<5.64E-2	5.64E-2	1/07/11	1A06002
1009027-15	B274V7	<4.36E-2	4.36E-2	3/23/11	1C23001
1009027-16	B274V8	<4.17E-2	4.17E-2	3/23/11	1C23001
1009027-17	B26RF8	<4.06E-2	4.06E-2	3/23/11	1C23001
1009027-18	B26RF9	<4.41E-2	4.41E-2	3/23/11	1C23001

Hexavalent Chromium/1:2.5 Water Extract

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1009027-01	B26FB7	<1.11E-1	1.11E-1	12/02/10	0J12002
1009027-02	B26HR6	<1.12E-1	1.12E-1	12/02/10	0J12002
1009027-03	B26J55	<1.10E-1	1.10E-1	1/07/11	1A07001
1009027-04	B26J56	<1.29E-1	1.29E-1	1/07/11	1A07001
1009027-05	B27N91	<1.06E-1	1.06E-1	1/07/11	1A07001
1009027-06	B27NB1	<1.15E-1	1.15E-1	1/07/11	1A07001
1009027-07	B27NB5	<1.15E-1	1.15E-1	1/07/11	1A07001
1009027-08	B27NB9	<1.27E-1	1.27E-1	1/07/11	1A07001
1009027-09	B27NC3	<1.57E-1	1.57E-1	1/07/11	1A07001
1009027-10	B27NC7	<1.16E-1	1.16E-1	1/07/11	1A07001
1009027-11	B27ND1	<1.18E-1	1.18E-1	1/07/11	1A07001
1009027-12	B27ND5	<1.19E-1	1.19E-1	1/07/11	1A07001
1009027-13	B27ND9	<1.20E-1	1.20E-1	1/07/11	1A07001
1009027-14	B27NF3	<1.42E-1	1.42E-1	1/07/11	1A07001
1009027-15	B274V7	<1.19E-1	1.19E-1	3/23/11	1C23002
1009027-16	B274V8	<1.17E-1	1.17E-1	3/23/11	1C23002
1009027-17	B26RF8	<1.16E-1	1.16E-1	3/23/11	1C23002
1009027-18	B26RF9	<1.17E-1	1.17E-1	3/23/11	1C23002

Hexavalent Chromium/1:5 Water Extract

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1009027-01	B26FB7	<2.33E-1	2.33E-1	12/02/10	0J15001
1009027-02	B26HR6	<2.37E-1	2.37E-1	12/02/10	0J15001
1009027-03	B26J55	<2.36E-1	2.36E-1	1/07/11	1A07002
1009027-04	B26J56	<2.44E-1	2.44E-1	1/07/11	1A07002
1009027-05	B27N91	<2.15E-1	2.15E-1	1/07/11	1A07002
1009027-06	B27NB1	<2.25E-1	2.25E-1	1/07/11	1A07002
1009027-07	B27NB5	<2.09E-1	2.09E-1	1/07/11	1A07002
1009027-08	B27NB9	<3.27E-1	3.27E-1	1/07/11	1A07002
1009027-09	B27NC3	<3.16E-1	3.16E-1	1/07/11	1A07002
1009027-10	B27NC7	<2.36E-1	2.36E-1	1/07/11	1A07002
1009027-11	B27ND1	<2.49E-1	2.49E-1	1/07/11	1A07002
1009027-12	B27ND5	<2.46E-1	2.46E-1	1/07/11	1A07002
1009027-13	B27ND9	<2.42E-1	2.42E-1	1/07/11	1A07002
1009027-14	B27NF3	<2.83E-1	2.83E-1	1/07/11	1A07002
1009027-15	B274V7	<2.75E-1	2.75E-1	3/23/11	1C23003
1009027-16	B274V8	<2.42E-1	2.42E-1	3/23/11	1C23003
1009027-17	B26RF8	<2.41E-1	2.41E-1	3/23/11	1C23003
1009027-18	B26RF9	<2.42E-1	2.42E-1	3/23/11	1C23003

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B26FB7**		**Lab ID:**	**1009027-01**			
7440-39-3	Barium	<1.24E-1	ug/g dry	1.24E-1	10/14/10	0J14005	PNNL-AGG-ICP-AES
HEIS No.	**B26HR6**		**Lab ID:**	**1009027-02**			
7440-39-3	Barium	<1.24E-1	ug/g dry	1.24E-1	10/14/10	0J14005	PNNL-AGG-ICP-AES
HEIS No.	**B26J55**		**Lab ID:**	**1009027-03**			
7440-39-3	Barium	<8.25E-2	ug/g dry	8.25E-2	2/01/11	1A31003	PNNL-AGG-ICP-AES
HEIS No.	**B26J56**		**Lab ID:**	**1009027-04**			
7440-39-3	Barium	<8.28E-2	ug/g dry	8.28E-2	2/01/11	1A31003	PNNL-AGG-ICP-AES
HEIS No.	**B27N91**		**Lab ID:**	**1009027-05**			
7440-39-3	Barium	<8.16E-2	ug/g dry	8.16E-2	2/01/11	1A31003	PNNL-AGG-ICP-AES
HEIS No.	**B27NB1**		**Lab ID:**	**1009027-06**			
7440-39-3	Barium	<8.51E-2	ug/g dry	8.51E-2	2/01/11	1A31003	PNNL-AGG-ICP-AES
HEIS No.	**B27NB5**		**Lab ID:**	**1009027-07**			
7440-39-3	Barium	<9.15E-2	ug/g dry	9.15E-2	2/01/11	1A31003	PNNL-AGG-ICP-AES
HEIS No.	**B27NB9**		**Lab ID:**	**1009027-08**			
7440-39-3	Barium	<8.62E-2	ug/g dry	8.62E-2	2/01/11	1A31003	PNNL-AGG-ICP-AES
HEIS No.	**B27NC3**		**Lab ID:**	**1009027-09**			
7440-39-3	Barium	<1.27E-1	ug/g dry	1.27E-1	2/01/11	1A31003	PNNL-AGG-ICP-AES
HEIS No.	**B27NC7**		**Lab ID:**	**1009027-10**			
7440-39-3	Barium	<8.22E-2	ug/g dry	8.22E-2	2/01/11	1A31003	PNNL-AGG-ICP-AES
HEIS No.	**B27ND1**		**Lab ID:**	**1009027-11**			
7440-39-3	Barium	<8.26E-2	ug/g dry	8.26E-2	2/01/11	1A31003	PNNL-AGG-ICP-AES
HEIS No.	**B27ND5**		**Lab ID:**	**1009027-12**			
7440-39-3	Barium	<8.29E-2	ug/g dry	8.29E-2	2/01/11	1A31003	PNNL-AGG-ICP-AES
HEIS No.	**B27ND9**		**Lab ID:**	**1009027-13**			
7440-39-3	Barium	<9.54E-2	ug/g dry	9.54E-2	2/01/11	1A31003	PNNL-AGG-ICP-AES
HEIS No.	**B27NF3**		**Lab ID:**	**1009027-14**			
7440-39-3	Barium	<1.05E-1	ug/g dry	1.05E-1	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.	**B26FB7**		**Lab ID:**	**1009027-01**			
7440-39-3	Barium	<3.09E-1	ug/g dry	3.09E-1	10/14/10	0J14006	PNNL-AGG-ICP-AES
HEIS No.	**B26HR6**		**Lab ID:**	**1009027-02**			
7440-39-3	Barium	<3.09E-1	ug/g dry	3.09E-1	10/14/10	0J14006	PNNL-AGG-ICP-AES
HEIS No.	**B26J55**		**Lab ID:**	**1009027-03**			
7440-39-3	Barium	<2.01E-1	ug/g dry	2.01E-1	2/01/11	1A31004	PNNL-AGG-ICP-AES
HEIS No.	**B26J56**		**Lab ID:**	**1009027-04**			
7440-39-3	Barium	<2.24E-1	ug/g dry	2.24E-1	2/01/11	1A31004	PNNL-AGG-ICP-AES
HEIS No.	**B27N91**		**Lab ID:**	**1009027-05**			
7440-39-3	Barium	<1.87E-1	ug/g dry	1.87E-1	2/01/11	1A31004	PNNL-AGG-ICP-AES
HEIS No.	**B27NB1**		**Lab ID:**	**1009027-06**			
7440-39-3	Barium	<2.07E-1	ug/g dry	2.07E-1	2/01/11	1A31004	PNNL-AGG-ICP-AES
HEIS No.	**B27NB5**		**Lab ID:**	**1009027-07**			
7440-39-3	Barium	<2.08E-1	ug/g dry	2.08E-1	2/01/11	1A31004	PNNL-AGG-ICP-AES
HEIS No.	**B27NB9**		**Lab ID:**	**1009027-08**			
7440-39-3	Barium	<2.12E-1	ug/g dry	2.12E-1	2/01/11	1A31004	PNNL-AGG-ICP-AES
HEIS No.	**B27NC3**		**Lab ID:**	**1009027-09**			
7440-39-3	Barium	<2.81E-1	ug/g dry	2.81E-1	2/01/11	1A31004	PNNL-AGG-ICP-AES
HEIS No.	**B27NC7**		**Lab ID:**	**1009027-10**			
7440-39-3	Barium	<2.06E-1	ug/g dry	2.06E-1	2/01/11	1A31004	PNNL-AGG-ICP-AES
HEIS No.	**B27ND1**		**Lab ID:**	**1009027-11**			
7440-39-3	Barium	<2.03E-1	ug/g dry	2.03E-1	2/01/11	1A31004	PNNL-AGG-ICP-AES
HEIS No.	**B27ND5**		**Lab ID:**	**1009027-12**			
7440-39-3	Barium	<2.05E-1	ug/g dry	2.05E-1	2/01/11	1A31004	PNNL-AGG-ICP-AES
HEIS No.	**B27ND9**		**Lab ID:**	**1009027-13**			
7440-39-3	Barium	<2.07E-1	ug/g dry	2.07E-1	2/01/11	1A31004	PNNL-AGG-ICP-AES
HEIS No.	**B27NF3**		**Lab ID:**	**1009027-14**			
7440-39-3	Barium	<2.45E-1	ug/g dry	2.45E-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.	**B26FB7**		**Lab ID:**	**1009027-01**			
7440-39-3	Barium	<6.10E-1	ug/g dry	6.10E-1	10/15/10	0J14007	PNNL-AGG-ICP-AES
HEIS No.	**B26HR6**		**Lab ID:**	**1009027-02**			
7440-39-3	Barium	<6.18E-1	ug/g dry	6.18E-1	10/15/10	0J14007	PNNL-AGG-ICP-AES
HEIS No.	**B26J55**		**Lab ID:**	**1009027-03**			
7440-39-3	Barium	<4.09E-1	ug/g dry	4.09E-1	2/01/11	1A31005	PNNL-AGG-ICP-AES
HEIS No.	**B26J56**		**Lab ID:**	**1009027-04**			
7440-39-3	Barium	<4.14E-1	ug/g dry	4.14E-1	2/01/11	1A31005	PNNL-AGG-ICP-AES
HEIS No.	**B27N91**		**Lab ID:**	**1009027-05**			
7440-39-3	Barium	<3.69E-1	ug/g dry	3.69E-1	2/01/11	1A31005	PNNL-AGG-ICP-AES
HEIS No.	**B27NB1**		**Lab ID:**	**1009027-06**			
7440-39-3	Barium	<3.90E-1	ug/g dry	3.90E-1	2/01/11	1A31005	PNNL-AGG-ICP-AES
HEIS No.	**B27NB5**		**Lab ID:**	**1009027-07**			
7440-39-3	Barium	<3.62E-1	ug/g dry	3.62E-1	2/01/11	1A31005	PNNL-AGG-ICP-AES
HEIS No.	**B27NB9**		**Lab ID:**	**1009027-08**			
7440-39-3	Barium	<5.42E-1	ug/g dry	5.42E-1	2/01/11	1A31005	PNNL-AGG-ICP-AES
HEIS No.	**B27NC3**		**Lab ID:**	**1009027-09**			
7440-39-3	Barium	<5.43E-1	ug/g dry	5.43E-1	2/01/11	1A31005	PNNL-AGG-ICP-AES
HEIS No.	**B27NC7**		**Lab ID:**	**1009027-10**			
7440-39-3	Barium	<4.04E-1	ug/g dry	4.04E-1	2/01/11	1A31005	PNNL-AGG-ICP-AES
HEIS No.	**B27ND1**		**Lab ID:**	**1009027-11**			
7440-39-3	Barium	<4.19E-1	ug/g dry	4.19E-1	2/01/11	1A31005	PNNL-AGG-ICP-AES
HEIS No.	**B27ND5**		**Lab ID:**	**1009027-12**			
7440-39-3	Barium	<4.15E-1	ug/g dry	4.15E-1	2/01/11	1A31005	PNNL-AGG-ICP-AES
HEIS No.	**B27ND9**		**Lab ID:**	**1009027-13**			
7440-39-3	Barium	<4.09E-1	ug/g dry	4.09E-1	2/01/11	1A31005	PNNL-AGG-ICP-AES
HEIS No.	**B27NF3**		**Lab ID:**	**1009027-14**			
7440-39-3	Barium	<4.78E-1	ug/g dry	4.78E-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.	**B26FB7**		**Lab ID:**	**1009027-01**			
7440-39-3	Barium	7.66E1	ug/g dry	1.80E0	10/15/10	0J14004	PNNL-AGG-ICP-AES
HEIS No.	**B26HR6**		**Lab ID:**	**1009027-02**			
7440-39-3	Barium	4.47E1	ug/g dry	1.76E0	10/15/10	0J14004	PNNL-AGG-ICP-AES
HEIS No.	**B26J55**		**Lab ID:**	**1009027-03**			
7440-39-3	Barium	4.07E1	ug/g dry	1.88E0	2/02/11	1B02001	PNNL-AGG-ICP-AES
HEIS No.	**B26J56**		**Lab ID:**	**1009027-04**			
7440-39-3	Barium	2.06E1	ug/g dry	1.61E0	2/02/11	1B02001	PNNL-AGG-ICP-AES
HEIS No.	**B27N91**		**Lab ID:**	**1009027-05**			
7440-39-3	Barium	3.74E1	ug/g dry	1.62E0	2/02/11	1B02001	PNNL-AGG-ICP-AES
HEIS No.	**B27NB1**		**Lab ID:**	**1009027-06**			
7440-39-3	Barium	2.79E1	ug/g dry	1.73E0	2/02/11	1B02001	PNNL-AGG-ICP-AES
HEIS No.	**B27NB5**		**Lab ID:**	**1009027-07**			
7440-39-3	Barium	3.33E1	ug/g dry	1.76E0	2/02/11	1B02001	PNNL-AGG-ICP-AES
HEIS No.	**B27NB9**		**Lab ID:**	**1009027-08**			
7440-39-3	Barium	3.08E1	ug/g dry	1.47E0	2/02/11	1B02001	PNNL-AGG-ICP-AES
HEIS No.	**B27NC3**		**Lab ID:**	**1009027-09**			
7440-39-3	Barium	2.40E1	ug/g dry	1.77E0	2/02/11	1B02001	PNNL-AGG-ICP-AES
HEIS No.	**B27NC7**		**Lab ID:**	**1009027-10**			
7440-39-3	Barium	2.32E1	ug/g dry	1.68E0	2/02/11	1B02001	PNNL-AGG-ICP-AES
HEIS No.	**B27ND1**		**Lab ID:**	**1009027-11**			
7440-39-3	Barium	3.08E1	ug/g dry	1.56E0	2/02/11	1B02001	PNNL-AGG-ICP-AES
HEIS No.	**B27ND5**		**Lab ID:**	**1009027-12**			
7440-39-3	Barium	3.34E1	ug/g dry	1.52E0	2/02/11	1B02001	PNNL-AGG-ICP-AES
HEIS No.	**B27ND9**		**Lab ID:**	**1009027-13**			
7440-39-3	Barium	3.11E1	ug/g dry	1.60E0	2/02/11	1B02001	PNNL-AGG-ICP-AES
HEIS No.	**B27NF3**		**Lab ID:**	**1009027-14**			
7440-39-3	Barium	2.65E1	ug/g dry	1.61E0	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.	**B26FB7**		**Lab ID:**	**1009027-01**			
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	10/11/10	0J11002	PNNL-AGG-415
7440-38-2	Arsenic	3.17E-3	ug/g dry	2.83E-3	10/11/10	0J11002	PNNL-AGG-415
14687-58-2	Selenium	<7.91E-3	ug/g dry	7.91E-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
14191-86-7	Mercury	<7.30E-4	ug/g dry	7.30E-4	11/16/10	0J11002	PNNL-AGG-415
HEIS No.	**B26HR6**		**Lab ID:**	**1009027-02**			
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	10/11/10	0J11002	PNNL-AGG-415
7440-38-2	Arsenic	5.60E-3	ug/g dry	2.84E-3	10/11/10	0J11002	PNNL-AGG-415
14687-58-2	Selenium	<7.91E-3	ug/g dry	7.91E-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	<5.73E-4	ug/g dry	5.73E-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
14191-86-7	Mercury	<7.30E-4	ug/g dry	7.30E-4	11/16/10	0J11002	PNNL-AGG-415
HEIS No.	**B26J55**		**Lab ID:**	**1009027-03**			
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	<5.73E-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
14191-86-7	Mercury	<7.31E-4	ug/g dry	7.31E-4	1/17/11	1A17001	PNNL-AGG-415
HEIS No.	**B26J56**		**Lab ID:**	**1009027-04**			
14092-98-9	Chromium	<3.46E-3	ug/g dry	3.46E-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	<7.94E-3	ug/g dry	7.94E-3	1/17/11	1A17001	PNNL-AGG-415
14378-37-1	Silver	<3.14E-3	ug/g dry	3.14E-3	1/17/11	1A17001	PNNL-AGG-415
14336-64-2	Cadmium	<5.75E-4	ug/g dry	5.75E-4	1/17/11	1A17001	PNNL-AGG-415
13966-28-4	Lead	<1.17E-3	ug/g dry	1.17E-3	1/17/11	1A17001	PNNL-AGG-415
14191-86-7	Mercury	<7.33E-4	ug/g dry	7.33E-4	1/17/11	1A17001	PNNL-AGG-415
HEIS No.	**B27N91**		**Lab ID:**	**1009027-05**			
14092-98-9	Chromium	<3.40E-3	ug/g dry	3.40E-3	1/17/11	1A17001	PNNL-AGG-415
7440-38-2	Arsenic	<1.40E-2	ug/g dry	1.40E-2	1/21/11	1A17001	PNNL-AGG-415
14687-58-2	Selenium	<7.82E-3	ug/g dry	7.82E-3	1/17/11	1A17001	PNNL-AGG-415
14378-37-1	Silver	<3.09E-3	ug/g dry	3.09E-3	1/17/11	1A17001	PNNL-AGG-415
14336-64-2	Cadmium	<5.66E-4	ug/g dry	5.66E-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
14191-86-7	Mercury	<7.22E-4	ug/g dry	7.22E-4	1/17/11	1A17001	PNNL-AGG-415
HEIS No.	**B27NB1**		**Lab ID:**	**1009027-06**			
14092-98-9	Chromium	<3.55E-3	ug/g dry	3.55E-3	1/17/11	1A17001	PNNL-AGG-415
7440-38-2	Arsenic	<1.46E-2	ug/g dry	1.46E-2	1/21/11	1A17001	PNNL-AGG-415
14687-58-2	Selenium	<8.16E-3	ug/g dry	8.16E-3	1/17/11	1A17001	PNNL-AGG-415
14378-37-1	Silver	<3.22E-3	ug/g dry	3.22E-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
14191-86-7	Mercury	<7.53E-4	ug/g dry	7.53E-4	1/17/11	1A17001	PNNL-AGG-415
HEIS No.	**B27NB5**		**Lab ID:**	**1009027-07**			

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B27NB5**		**Lab ID:**	**1009027-07**			
14092-98-9	Chromium	<3.82E-3	ug/g dry	3.82E-3	1/17/11	1A17001	PNNL-AGG-415
7440-38-2	Arsenic	<1.57E-2	ug/g dry	1.57E-2	1/21/11	1A17001	PNNL-AGG-415
14687-58-2	Selenium	<8.78E-3	ug/g dry	8.78E-3	1/17/11	1A17001	PNNL-AGG-415
14378-37-1	Silver	<3.47E-3	ug/g dry	3.47E-3	1/17/11	1A17001	PNNL-AGG-415
14336-64-2	Cadmium	<6.35E-4	ug/g dry	6.35E-4	1/17/11	1A17001	PNNL-AGG-415
13966-28-4	Lead	<1.29E-3	ug/g dry	1.29E-3	1/17/11	1A17001	PNNL-AGG-415
14191-86-7	Mercury	<8.10E-4	ug/g dry	8.10E-4	1/17/11	1A17001	PNNL-AGG-415
HEIS No.	**B27NB9**		**Lab ID:**	**1009027-08**			
14092-98-9	Chromium	<3.60E-3	ug/g dry	3.60E-3	1/17/11	1A17001	PNNL-AGG-415
7440-38-2	Arsenic	<1.48E-2	ug/g dry	1.48E-2	1/21/11	1A17001	PNNL-AGG-415
14687-58-2	Selenium	<8.27E-3	ug/g dry	8.27E-3	1/17/11	1A17001	PNNL-AGG-415
14378-37-1	Silver	<3.27E-3	ug/g dry	3.27E-3	1/17/11	1A17001	PNNL-AGG-415
14336-64-2	Cadmium	<5.99E-4	ug/g dry	5.99E-4	1/17/11	1A17001	PNNL-AGG-415
13966-28-4	Lead	<1.21E-3	ug/g dry	1.21E-3	1/17/11	1A17001	PNNL-AGG-415
14191-86-7	Mercury	<7.63E-4	ug/g dry	7.63E-4	1/17/11	1A17001	PNNL-AGG-415
HEIS No.	**B27NC3**		**Lab ID:**	**1009027-09**			
14092-98-9	Chromium	<5.29E-3	ug/g dry	5.29E-3	1/17/11	1A17001	PNNL-AGG-415
7440-38-2	Arsenic	<2.18E-2	ug/g dry	2.18E-2	1/21/11	1A17001	PNNL-AGG-415
14687-58-2	Selenium	<1.22E-2	ug/g dry	1.22E-2	1/17/11	1A17001	PNNL-AGG-415
14378-37-1	Silver	<4.80E-3	ug/g dry	4.80E-3	1/17/11	1A17001	PNNL-AGG-415
14336-64-2	Cadmium	<8.80E-4	ug/g dry	8.80E-4	1/17/11	1A17001	PNNL-AGG-415
13966-28-4	Lead	<1.78E-3	ug/g dry	1.78E-3	1/17/11	1A17001	PNNL-AGG-415
14191-86-7	Mercury	<1.12E-3	ug/g dry	1.12E-3	1/17/11	1A17001	PNNL-AGG-415
HEIS No.	**B27NC7**		**Lab ID:**	**1009027-10**			
14092-98-9	Chromium	<3.43E-3	ug/g dry	3.43E-3	1/17/11	1A17001	PNNL-AGG-415
7440-38-2	Arsenic	<1.41E-2	ug/g dry	1.41E-2	1/21/11	1A17001	PNNL-AGG-415
14687-58-2	Selenium	<7.88E-3	ug/g dry	7.88E-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	<5.71E-4	ug/g dry	5.71E-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
14191-86-7	Mercury	<7.28E-4	ug/g dry	7.28E-4	1/17/11	1A17001	PNNL-AGG-415
HEIS No.	**B27ND1**		**Lab ID:**	**1009027-11**			
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	<7.93E-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
14191-86-7	Mercury	<7.31E-4	ug/g dry	7.31E-4	1/17/11	1A17001	PNNL-AGG-415
HEIS No.	**B27ND5**		**Lab ID:**	**1009027-12**			
14092-98-9	Chromium	<3.46E-3	ug/g dry	3.46E-3	1/17/11	1A17001	PNNL-AGG-415
7440-38-2	Arsenic	<1.43E-2	ug/g dry	1.43E-2	1/21/11	1A17001	PNNL-AGG-415
14687-58-2	Selenium	<7.96E-3	ug/g dry	7.96E-3	1/17/11	1A17001	PNNL-AGG-415
14378-37-1	Silver	<3.14E-3	ug/g dry	3.14E-3	1/17/11	1A17001	PNNL-AGG-415
14336-64-2	Cadmium	<5.76E-4	ug/g dry	5.76E-4	1/17/11	1A17001	PNNL-AGG-415
13966-28-4	Lead	<1.17E-3	ug/g dry	1.17E-3	1/17/11	1A17001	PNNL-AGG-415
14191-86-7	Mercury	<7.34E-4	ug/g dry	7.34E-4	1/17/11	1A17001	PNNL-AGG-415
HEIS No.	**B27ND9**		**Lab ID:**	**1009027-13**			

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B27ND9**		**Lab ID:**	**1009027-13**			
14092-98-9	Chromium	<3.98E-3	ug/g dry	3.98E-3	1/17/11	1A17001	PNNL-AGG-415
7440-38-2	Arsenic	<1.64E-2	ug/g dry	1.64E-2	1/21/11	1A17001	PNNL-AGG-415
14687-58-2	Selenium	<9.16E-3	ug/g dry	9.16E-3	1/17/11	1A17001	PNNL-AGG-415
14378-37-1	Silver	<3.62E-3	ug/g dry	3.62E-3	1/17/11	1A17001	PNNL-AGG-415
14336-64-2	Cadmium	<6.63E-4	ug/g dry	6.63E-4	1/17/11	1A17001	PNNL-AGG-415
13966-28-4	Lead	<1.34E-3	ug/g dry	1.34E-3	1/17/11	1A17001	PNNL-AGG-415
14191-86-7	Mercury	<8.45E-4	ug/g dry	8.45E-4	1/17/11	1A17001	PNNL-AGG-415
HEIS No.	**B27NF3**		**Lab ID:**	**1009027-14**			
14092-98-9	Chromium	<4.37E-3	ug/g dry	4.37E-3	1/17/11	1A17001	PNNL-AGG-415
7440-38-2	Arsenic	<1.80E-2	ug/g dry	1.80E-2	1/21/11	1A17001	PNNL-AGG-415
14687-58-2	Selenium	<1.01E-2	ug/g dry	1.01E-2	1/17/11	1A17001	PNNL-AGG-415
14378-37-1	Silver	<3.97E-3	ug/g dry	3.97E-3	1/17/11	1A17001	PNNL-AGG-415
14336-64-2	Cadmium	<7.27E-4	ug/g dry	7.27E-4	1/17/11	1A17001	PNNL-AGG-415
13966-28-4	Lead	<1.48E-3	ug/g dry	1.48E-3	1/17/11	1A17001	PNNL-AGG-415
14191-86-7	Mercury	<9.27E-4	ug/g dry	9.27E-4	1/17/11	1A17001	PNNL-AGG-415
HEIS No.	**B274V7**		**Lab ID:**	**1009027-15**			
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	4/08/11	1D08002	PNNL-AGG-415
7440-38-2	Arsenic	3.08E-3	ug/g dry	2.84E-3	4/08/11	1D08002	PNNL-AGG-415
14687-58-2	Selenium	<7.91E-3	ug/g dry	7.91E-3	4/08/11	1D08002	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	4/08/11	1D08002	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	4/08/11	1D08002	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	4/08/11	1D08002	PNNL-AGG-415
14191-86-7	Mercury	<7.30E-4	ug/g dry	7.30E-4	4/08/11	1D08002	PNNL-AGG-415
13981-97-0	Barium	1.08E-2	ug/g dry	3.12E-4	4/14/11	1D08002	PNNL-AGG-415
HEIS No.	**B274V8**		**Lab ID:**	**1009027-16**			
14092-98-9	Chromium	<3.45E-3	ug/g dry	3.45E-3	4/08/11	1D08002	PNNL-AGG-415
7440-38-2	Arsenic	<2.84E-3	ug/g dry	2.84E-3	4/08/11	1D08002	PNNL-AGG-415
14687-58-2	Selenium	<7.92E-3	ug/g dry	7.92E-3	4/08/11	1D08002	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	4/08/11	1D08002	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	4/08/11	1D08002	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	4/08/11	1D08002	PNNL-AGG-415
14191-86-7	Mercury	<7.31E-4	ug/g dry	7.31E-4	4/08/11	1D08002	PNNL-AGG-415
13981-97-0	Barium	1.92E-2	ug/g dry	3.12E-4	4/14/11	1D08002	PNNL-AGG-415
HEIS No.	**B26RF8**		**Lab ID:**	**1009027-17**			
14092-98-9	Chromium	<3.44E-3	ug/g dry	3.44E-3	4/08/11	1D08002	PNNL-AGG-415
7440-38-2	Arsenic	<2.84E-3	ug/g dry	2.84E-3	4/08/11	1D08002	PNNL-AGG-415
14687-58-2	Selenium	<7.91E-3	ug/g dry	7.91E-3	4/08/11	1D08002	PNNL-AGG-415
14378-37-1	Silver	<3.13E-3	ug/g dry	3.13E-3	4/08/11	1D08002	PNNL-AGG-415
14336-64-2	Cadmium	<5.73E-4	ug/g dry	5.73E-4	4/08/11	1D08002	PNNL-AGG-415
13966-28-4	Lead	<1.16E-3	ug/g dry	1.16E-3	4/08/11	1D08002	PNNL-AGG-415
14191-86-7	Mercury	<7.30E-4	ug/g dry	7.30E-4	4/08/11	1D08002	PNNL-AGG-415
13981-97-0	Barium	1.66E-2	ug/g dry	3.12E-4	4/14/11	1D08002	PNNL-AGG-415
HEIS No.	**B26RF9**		**Lab ID:**	**1009027-18**			
14092-98-9	Chromium	<3.60E-3	ug/g dry	3.60E-3	4/08/11	1D08002	PNNL-AGG-415
7440-38-2	Arsenic	<2.96E-3	ug/g dry	2.96E-3	4/08/11	1D08002	PNNL-AGG-415
14687-58-2	Selenium	<8.27E-3	ug/g dry	8.27E-3	4/08/11	1D08002	PNNL-AGG-415
14378-37-1	Silver	<3.27E-3	ug/g dry	3.27E-3	4/08/11	1D08002	PNNL-AGG-415
14336-64-2	Cadmium	<5.98E-4	ug/g dry	5.98E-4	4/08/11	1D08002	PNNL-AGG-415

REVISION 1

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B26RF9**		**Lab ID:**	**1009027-18**			
13966-28-4	Lead	<1.21E-3	ug/g dry	1.21E-3	4/08/11	1D08002	PNNL-AGG-415
14191-86-7	Mercury	<7.63E-4	ug/g dry	7.63E-4	4/08/11	1D08002	PNNL-AGG-415
13981-97-0	Barium	2.18E-2	ug/g dry	3.26E-4	4/14/11	1D08002	PNNL-AGG-415

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B26FB7**		**Lab ID:**	**1009027-01**			
14092-98-9	Chromium	<8.59E-3	ug/g dry	8.59E-3	12/06/10	0J11003	PNNL-AGG-415
7440-38-2	Arsenic	1.54E-2	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	<7.80E-3	ug/g dry	7.80E-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
14191-86-7	Mercury	<1.82E-3	ug/g dry	1.82E-3	12/06/10	0J11003	PNNL-AGG-415
HEIS No.	**B26HR6**		**Lab ID:**	**1009027-02**			
14092-98-9	Chromium	<8.61E-3	ug/g dry	8.61E-3	12/06/10	0J11003	PNNL-AGG-415
7440-38-2	Arsenic	7.33E-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	<2.90E-3	ug/g dry	2.90E-3	12/06/10	0J11003	PNNL-AGG-415
14191-86-7	Mercury	<1.83E-3	ug/g dry	1.83E-3	12/06/10	0J11003	PNNL-AGG-415
HEIS No.	**B26J55**		**Lab ID:**	**1009027-03**			
14092-98-9	Chromium	<8.38E-3	ug/g dry	8.38E-3	1/17/11	1A17002	PNNL-AGG-415
7440-38-2	Arsenic	<3.45E-2	ug/g dry	3.45E-2	1/21/11	1A17002	PNNL-AGG-415
14687-58-2	Selenium	<1.93E-2	ug/g dry	1.93E-2	1/17/11	1A17002	PNNL-AGG-415
14378-37-1	Silver	<7.61E-3	ug/g dry	7.61E-3	1/17/11	1A17002	PNNL-AGG-415
14336-64-2	Cadmium	<1.39E-3	ug/g dry	1.39E-3	1/17/11	1A17002	PNNL-AGG-415
13966-28-4	Lead	<2.83E-3	ug/g dry	2.83E-3	1/17/11	1A17002	PNNL-AGG-415
14191-86-7	Mercury	<1.78E-3	ug/g dry	1.78E-3	1/17/11	1A17002	PNNL-AGG-415
HEIS No.	**B26J56**		**Lab ID:**	**1009027-04**			
14092-98-9	Chromium	<9.37E-3	ug/g dry	9.37E-3	1/17/11	1A17002	PNNL-AGG-415
7440-38-2	Arsenic	<3.86E-2	ug/g dry	3.86E-2	1/21/11	1A17002	PNNL-AGG-415
14687-58-2	Selenium	<2.15E-2	ug/g dry	2.15E-2	1/17/11	1A17002	PNNL-AGG-415
14378-37-1	Silver	<8.51E-3	ug/g dry	8.51E-3	1/17/11	1A17002	PNNL-AGG-415
14336-64-2	Cadmium	<1.56E-3	ug/g dry	1.56E-3	1/17/11	1A17002	PNNL-AGG-415
13966-28-4	Lead	<3.16E-3	ug/g dry	3.16E-3	1/17/11	1A17002	PNNL-AGG-415
14191-86-7	Mercury	<1.99E-3	ug/g dry	1.99E-3	1/17/11	1A17002	PNNL-AGG-415
HEIS No.	**B27N91**		**Lab ID:**	**1009027-05**			
14092-98-9	Chromium	<7.82E-3	ug/g dry	7.82E-3	1/17/11	1A17002	PNNL-AGG-415
7440-38-2	Arsenic	<3.22E-2	ug/g dry	3.22E-2	1/21/11	1A17002	PNNL-AGG-415
14687-58-2	Selenium	<1.80E-2	ug/g dry	1.80E-2	1/17/11	1A17002	PNNL-AGG-415
14378-37-1	Silver	<7.10E-3	ug/g dry	7.10E-3	1/17/11	1A17002	PNNL-AGG-415
14336-64-2	Cadmium	<1.30E-3	ug/g dry	1.30E-3	1/17/11	1A17002	PNNL-AGG-415
13966-28-4	Lead	<2.64E-3	ug/g dry	2.64E-3	1/17/11	1A17002	PNNL-AGG-415
14191-86-7	Mercury	<1.66E-3	ug/g dry	1.66E-3	1/17/11	1A17002	PNNL-AGG-415
HEIS No.	**B27NB1**		**Lab ID:**	**1009027-06**			
14092-98-9	Chromium	<8.62E-3	ug/g dry	8.62E-3	1/17/11	1A17002	PNNL-AGG-415
7440-38-2	Arsenic	<3.55E-2	ug/g dry	3.55E-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	<7.83E-3	ug/g dry	7.83E-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	<2.91E-3	ug/g dry	2.91E-3	1/17/11	1A17002	PNNL-AGG-415
14191-86-7	Mercury	<1.83E-3	ug/g dry	1.83E-3	1/17/11	1A17002	PNNL-AGG-415
HEIS No.	**B27NB5**		**Lab ID:**	**1009027-07**			

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B27NB5**		**Lab ID:**	**1009027-07**			
14092-98-9	Chromium	<8.67E-3	ug/g dry	8.67E-3	1/17/11	1A17002	PNNL-AGG-415
7440-38-2	Arsenic	<3.57E-2	ug/g dry	3.57E-2	1/21/11	1A17002	PNNL-AGG-415
14687-58-2	Selenium	<1.99E-2	ug/g dry	1.99E-2	1/17/11	1A17002	PNNL-AGG-415
14378-37-1	Silver	<7.87E-3	ug/g dry	7.87E-3	1/17/11	1A17002	PNNL-AGG-415
14336-64-2	Cadmium	<1.44E-3	ug/g dry	1.44E-3	1/17/11	1A17002	PNNL-AGG-415
13966-28-4	Lead	<2.92E-3	ug/g dry	2.92E-3	1/17/11	1A17002	PNNL-AGG-415
14191-86-7	Mercury	<1.84E-3	ug/g dry	1.84E-3	1/17/11	1A17002	PNNL-AGG-415
HEIS No.	**B27NB9**		**Lab ID:**	**1009027-08**			
14092-98-9	Chromium	<8.86E-3	ug/g dry	8.86E-3	1/17/11	1A17002	PNNL-AGG-415
7440-38-2	Arsenic	<3.65E-2	ug/g dry	3.65E-2	1/21/11	1A17002	PNNL-AGG-415
14687-58-2	Selenium	<2.04E-2	ug/g dry	2.04E-2	1/17/11	1A17002	PNNL-AGG-415
14378-37-1	Silver	<8.04E-3	ug/g dry	8.04E-3	1/17/11	1A17002	PNNL-AGG-415
14336-64-2	Cadmium	<1.47E-3	ug/g dry	1.47E-3	1/17/11	1A17002	PNNL-AGG-415
13966-28-4	Lead	<2.99E-3	ug/g dry	2.99E-3	1/17/11	1A17002	PNNL-AGG-415
14191-86-7	Mercury	<1.88E-3	ug/g dry	1.88E-3	1/17/11	1A17002	PNNL-AGG-415
HEIS No.	**B27NC3**		**Lab ID:**	**1009027-09**			
14092-98-9	Chromium	<1.17E-2	ug/g dry	1.17E-2	1/17/11	1A17002	PNNL-AGG-415
7440-38-2	Arsenic	<4.83E-2	ug/g dry	4.83E-2	1/21/11	1A17002	PNNL-AGG-415
14687-58-2	Selenium	<2.70E-2	ug/g dry	2.70E-2	1/17/11	1A17002	PNNL-AGG-415
14378-37-1	Silver	<1.07E-2	ug/g dry	1.07E-2	1/17/11	1A17002	PNNL-AGG-415
14336-64-2	Cadmium	<1.95E-3	ug/g dry	1.95E-3	1/17/11	1A17002	PNNL-AGG-415
13966-28-4	Lead	<3.96E-3	ug/g dry	3.96E-3	1/17/11	1A17002	PNNL-AGG-415
14191-86-7	Mercury	<2.49E-3	ug/g dry	2.49E-3	1/17/11	1A17002	PNNL-AGG-415
HEIS No.	**B27NC7**		**Lab ID:**	**1009027-10**			
14092-98-9	Chromium	<8.59E-3	ug/g dry	8.59E-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	<1.97E-2	ug/g dry	1.97E-2	1/17/11	1A17002	PNNL-AGG-415
14378-37-1	Silver	<7.80E-3	ug/g dry	7.80E-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
14191-86-7	Mercury	<1.82E-3	ug/g dry	1.82E-3	1/17/11	1A17002	PNNL-AGG-415
HEIS No.	**B27ND1**		**Lab ID:**	**1009027-11**			
14092-98-9	Chromium	<8.48E-3	ug/g dry	8.48E-3	1/17/11	1A17002	PNNL-AGG-415
7440-38-2	Arsenic	<3.49E-2	ug/g dry	3.49E-2	1/21/11	1A17002	PNNL-AGG-415
14687-58-2	Selenium	<1.95E-2	ug/g dry	1.95E-2	1/17/11	1A17002	PNNL-AGG-415
14378-37-1	Silver	<7.70E-3	ug/g dry	7.70E-3	1/17/11	1A17002	PNNL-AGG-415
14336-64-2	Cadmium	<1.41E-3	ug/g dry	1.41E-3	1/17/11	1A17002	PNNL-AGG-415
13966-28-4	Lead	<2.86E-3	ug/g dry	2.86E-3	1/17/11	1A17002	PNNL-AGG-415
14191-86-7	Mercury	<1.80E-3	ug/g dry	1.80E-3	1/17/11	1A17002	PNNL-AGG-415
HEIS No.	**B27ND5**		**Lab ID:**	**1009027-12**			
14092-98-9	Chromium	<8.57E-3	ug/g dry	8.57E-3	1/17/11	1A17002	PNNL-AGG-415
7440-38-2	Arsenic	<3.53E-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
14191-86-7	Mercury	<1.82E-3	ug/g dry	1.82E-3	1/17/11	1A17002	PNNL-AGG-415
HEIS No.	**B27ND9**		**Lab ID:**	**1009027-13**			

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B27ND9**		**Lab ID:**	**1009027-13**			
14092-98-9	Chromium	<8.63E-3	ug/g dry	8.63E-3	1/17/11	1A17002	PNNL-AGG-415
7440-38-2	Arsenic	<3.55E-2	ug/g dry	3.55E-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	<7.83E-3	ug/g dry	7.83E-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	<2.91E-3	ug/g dry	2.91E-3	1/17/11	1A17002	PNNL-AGG-415
14191-86-7	Mercury	<1.83E-3	ug/g dry	1.83E-3	1/17/11	1A17002	PNNL-AGG-415
HEIS No.	**B27NF3**		**Lab ID:**	**1009027-14**			
14092-98-9	Chromium	<1.02E-2	ug/g dry	1.02E-2	1/17/11	1A17002	PNNL-AGG-415
7440-38-2	Arsenic	<4.21E-2	ug/g dry	4.21E-2	1/21/11	1A17002	PNNL-AGG-415
14687-58-2	Selenium	<2.35E-2	ug/g dry	2.35E-2	1/17/11	1A17002	PNNL-AGG-415
14378-37-1	Silver	<9.30E-3	ug/g dry	9.30E-3	1/17/11	1A17002	PNNL-AGG-415
14336-64-2	Cadmium	<1.70E-3	ug/g dry	1.70E-3	1/17/11	1A17002	PNNL-AGG-415
13966-28-4	Lead	<3.45E-3	ug/g dry	3.45E-3	1/17/11	1A17002	PNNL-AGG-415
14191-86-7	Mercury	<2.17E-3	ug/g dry	2.17E-3	1/17/11	1A17002	PNNL-AGG-415
HEIS No.	**B274V7**		**Lab ID:**	**1009027-15**			
14092-98-9	Chromium	<8.61E-3	ug/g dry	8.61E-3	4/08/11	1D08003	PNNL-AGG-415
7440-38-2	Arsenic	<7.09E-3	ug/g dry	7.09E-3	4/08/11	1D08003	PNNL-AGG-415
14687-58-2	Selenium	<1.98E-2	ug/g dry	1.98E-2	4/08/11	1D08003	PNNL-AGG-415
14378-37-1	Silver	<7.82E-3	ug/g dry	7.82E-3	4/08/11	1D08003	PNNL-AGG-415
14336-64-2	Cadmium	<1.43E-3	ug/g dry	1.43E-3	4/08/11	1D08003	PNNL-AGG-415
13966-28-4	Lead	<2.90E-3	ug/g dry	2.90E-3	4/08/11	1D08003	PNNL-AGG-415
14191-86-7	Mercury	<1.83E-3	ug/g dry	1.83E-3	4/08/11	1D08003	PNNL-AGG-415
13981-97-0	Barium	2.04E-2	ug/g dry	7.80E-4	4/14/11	1D08003	PNNL-AGG-415
HEIS No.	**B274V8**		**Lab ID:**	**1009027-16**			
14092-98-9	Chromium	<8.61E-3	ug/g dry	8.61E-3	4/08/11	1D08003	PNNL-AGG-415
7440-38-2	Arsenic	<7.09E-3	ug/g dry	7.09E-3	4/08/11	1D08003	PNNL-AGG-415
14687-58-2	Selenium	<1.98E-2	ug/g dry	1.98E-2	4/08/11	1D08003	PNNL-AGG-415
14378-37-1	Silver	<7.82E-3	ug/g dry	7.82E-3	4/08/11	1D08003	PNNL-AGG-415
14336-64-2	Cadmium	<1.43E-3	ug/g dry	1.43E-3	4/08/11	1D08003	PNNL-AGG-415
13966-28-4	Lead	<2.90E-3	ug/g dry	2.90E-3	4/08/11	1D08003	PNNL-AGG-415
14191-86-7	Mercury	<1.83E-3	ug/g dry	1.83E-3	4/08/11	1D08003	PNNL-AGG-415
13981-97-0	Barium	3.18E-2	ug/g dry	7.80E-4	4/14/11	1D08003	PNNL-AGG-415
HEIS No.	**B26RF8**		**Lab ID:**	**1009027-17**			
14092-98-9	Chromium	<8.66E-3	ug/g dry	8.66E-3	4/08/11	1D08003	PNNL-AGG-415
7440-38-2	Arsenic	<7.13E-3	ug/g dry	7.13E-3	4/08/11	1D08003	PNNL-AGG-415
14687-58-2	Selenium	<1.99E-2	ug/g dry	1.99E-2	4/08/11	1D08003	PNNL-AGG-415
14378-37-1	Silver	<7.87E-3	ug/g dry	7.87E-3	4/08/11	1D08003	PNNL-AGG-415
14336-64-2	Cadmium	<1.44E-3	ug/g dry	1.44E-3	4/08/11	1D08003	PNNL-AGG-415
13966-28-4	Lead	<2.92E-3	ug/g dry	2.92E-3	4/08/11	1D08003	PNNL-AGG-415
14191-86-7	Mercury	<1.84E-3	ug/g dry	1.84E-3	4/08/11	1D08003	PNNL-AGG-415
13981-97-0	Barium	3.15E-2	ug/g dry	7.85E-4	4/14/11	1D08003	PNNL-AGG-415
HEIS No.	**B26RF9**		**Lab ID:**	**1009027-18**			
14092-98-9	Chromium	<8.64E-3	ug/g dry	8.64E-3	4/08/11	1D08003	PNNL-AGG-415
7440-38-2	Arsenic	<7.12E-3	ug/g dry	7.12E-3	4/08/11	1D08003	PNNL-AGG-415
14687-58-2	Selenium	<1.99E-2	ug/g dry	1.99E-2	4/08/11	1D08003	PNNL-AGG-415
14378-37-1	Silver	<7.85E-3	ug/g dry	7.85E-3	4/08/11	1D08003	PNNL-AGG-415
14336-64-2	Cadmium	<1.44E-3	ug/g dry	1.44E-3	4/08/11	1D08003	PNNL-AGG-415

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B26RF9**	**Lab ID:**		**1009027-18**			
13966-28-4	Lead	<2.92E-3	ug/g dry	2.92E-3	4/08/11	1D08003	PNNL-AGG-415
14191-86-7	Mercury	<1.83E-3	ug/g dry	1.83E-3	4/08/11	1D08003	PNNL-AGG-415
13981-97-0	Barium	4.24E-2	ug/g dry	7.83E-4	4/14/11	1D08003	PNNL-AGG-415

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B26FB7**		**Lab ID:**	**1009027-01**			
14092-98-9	Chromium	<1.70E-2	ug/g dry	1.70E-2	12/06/10	0J11004	PNNL-AGG-415
7440-38-2	Arsenic	1.45E-2	ug/g dry	1.40E-2	12/06/10	0J11004	PNNL-AGG-415
14687-58-2	Selenium	<3.90E-2	ug/g dry	3.90E-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	<5.73E-3	ug/g dry	5.73E-3	12/06/10	0J11004	PNNL-AGG-415
14191-86-7	Mercury	<3.60E-3	ug/g dry	3.60E-3	12/06/10	0J11004	PNNL-AGG-415
HEIS No.	**B26HR6**		**Lab ID:**	**1009027-02**			
14092-98-9	Chromium	<1.72E-2	ug/g dry	1.72E-2	12/06/10	0J11004	PNNL-AGG-415
7440-38-2	Arsenic	2.99E-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
14191-86-7	Mercury	<3.65E-3	ug/g dry	3.65E-3	12/06/10	0J11004	PNNL-AGG-415
HEIS No.	**B26J55**		**Lab ID:**	**1009027-03**			
14092-98-9	Chromium	<1.71E-2	ug/g dry	1.71E-2	1/17/11	1A17003	PNNL-AGG-415
7440-38-2	Arsenic	<7.02E-2	ug/g dry	7.02E-2	1/21/11	1A17003	PNNL-AGG-415
14687-58-2	Selenium	<3.92E-2	ug/g dry	3.92E-2	1/17/11	1A17003	PNNL-AGG-415
14378-37-1	Silver	<1.55E-2	ug/g dry	1.55E-2	1/17/11	1A17003	PNNL-AGG-415
14336-64-2	Cadmium	<2.84E-3	ug/g dry	2.84E-3	1/17/11	1A17003	PNNL-AGG-415
13966-28-4	Lead	<5.75E-3	ug/g dry	5.75E-3	1/17/11	1A17003	PNNL-AGG-415
14191-86-7	Mercury	<3.62E-3	ug/g dry	3.62E-3	1/17/11	1A17003	PNNL-AGG-415
HEIS No.	**B26J56**		**Lab ID:**	**1009027-04**			
14092-98-9	Chromium	<1.73E-2	ug/g dry	1.73E-2	1/17/11	1A17003	PNNL-AGG-415
7440-38-2	Arsenic	<7.11E-2	ug/g dry	7.11E-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	<2.87E-3	ug/g dry	2.87E-3	1/17/11	1A17003	PNNL-AGG-415
13966-28-4	Lead	<5.82E-3	ug/g dry	5.82E-3	1/17/11	1A17003	PNNL-AGG-415
14191-86-7	Mercury	<3.66E-3	ug/g dry	3.66E-3	1/17/11	1A17003	PNNL-AGG-415
HEIS No.	**B27N91**		**Lab ID:**	**1009027-05**			
14092-98-9	Chromium	<1.54E-2	ug/g dry	1.54E-2	1/17/11	1A17003	PNNL-AGG-415
7440-38-2	Arsenic	<6.33E-2	ug/g dry	6.33E-2	1/21/11	1A17003	PNNL-AGG-415
14687-58-2	Selenium	<3.54E-2	ug/g dry	3.54E-2	1/17/11	1A17003	PNNL-AGG-415
14378-37-1	Silver	<1.40E-2	ug/g dry	1.40E-2	1/17/11	1A17003	PNNL-AGG-415
14336-64-2	Cadmium	<2.56E-3	ug/g dry	2.56E-3	1/17/11	1A17003	PNNL-AGG-415
13966-28-4	Lead	<5.19E-3	ug/g dry	5.19E-3	1/17/11	1A17003	PNNL-AGG-415
14191-86-7	Mercury	<3.26E-3	ug/g dry	3.26E-3	1/17/11	1A17003	PNNL-AGG-415
HEIS No.	**B27NB1**		**Lab ID:**	**1009027-06**			
14092-98-9	Chromium	<1.63E-2	ug/g dry	1.63E-2	1/17/11	1A17003	PNNL-AGG-415
7440-38-2	Arsenic	<6.70E-2	ug/g dry	6.70E-2	1/21/11	1A17003	PNNL-AGG-415
14687-58-2	Selenium	<3.74E-2	ug/g dry	3.74E-2	1/17/11	1A17003	PNNL-AGG-415
14378-37-1	Silver	<1.48E-2	ug/g dry	1.48E-2	1/17/11	1A17003	PNNL-AGG-415
14336-64-2	Cadmium	<2.71E-3	ug/g dry	2.71E-3	1/17/11	1A17003	PNNL-AGG-415
13966-28-4	Lead	<5.49E-3	ug/g dry	5.49E-3	1/17/11	1A17003	PNNL-AGG-415
14191-86-7	Mercury	<3.45E-3	ug/g dry	3.45E-3	1/17/11	1A17003	PNNL-AGG-415
HEIS No.	**B27NB5**		**Lab ID:**	**1009027-07**			

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B27NB5**		**Lab ID:**	**1009027-07**			
14092-98-9	Chromium	<1.51E-2	ug/g dry	1.51E-2	1/17/11	1A17003	PNNL-AGG-415
7440-38-2	Arsenic	<6.23E-2	ug/g dry	6.23E-2	1/21/11	1A17003	PNNL-AGG-415
14687-58-2	Selenium	<3.48E-2	ug/g dry	3.48E-2	1/17/11	1A17003	PNNL-AGG-415
14378-37-1	Silver	<1.37E-2	ug/g dry	1.37E-2	1/17/11	1A17003	PNNL-AGG-415
14336-64-2	Cadmium	<2.52E-3	ug/g dry	2.52E-3	1/17/11	1A17003	PNNL-AGG-415
13966-28-4	Lead	<5.10E-3	ug/g dry	5.10E-3	1/17/11	1A17003	PNNL-AGG-415
14191-86-7	Mercury	<3.21E-3	ug/g dry	3.21E-3	1/17/11	1A17003	PNNL-AGG-415
HEIS No.	**B27NB9**		**Lab ID:**	**1009027-08**			
14092-98-9	Chromium	<2.26E-2	ug/g dry	2.26E-2	1/17/11	1A17003	PNNL-AGG-415
7440-38-2	Arsenic	<9.32E-2	ug/g dry	9.32E-2	1/21/11	1A17003	PNNL-AGG-415
14687-58-2	Selenium	<5.20E-2	ug/g dry	5.20E-2	1/17/11	1A17003	PNNL-AGG-415
14378-37-1	Silver	<2.06E-2	ug/g dry	2.06E-2	1/17/11	1A17003	PNNL-AGG-415
14336-64-2	Cadmium	<3.77E-3	ug/g dry	3.77E-3	1/17/11	1A17003	PNNL-AGG-415
13966-28-4	Lead	<7.64E-3	ug/g dry	7.64E-3	1/17/11	1A17003	PNNL-AGG-415
14191-86-7	Mercury	<4.80E-3	ug/g dry	4.80E-3	1/17/11	1A17003	PNNL-AGG-415
HEIS No.	**B27NC3**		**Lab ID:**	**1009027-09**			
14092-98-9	Chromium	<2.27E-2	ug/g dry	2.27E-2	1/17/11	1A17003	PNNL-AGG-415
7440-38-2	Arsenic	<9.34E-2	ug/g dry	9.34E-2	1/21/11	1A17003	PNNL-AGG-415
14687-58-2	Selenium	<5.21E-2	ug/g dry	5.21E-2	1/17/11	1A17003	PNNL-AGG-415
14378-37-1	Silver	<2.06E-2	ug/g dry	2.06E-2	1/17/11	1A17003	PNNL-AGG-415
14336-64-2	Cadmium	<3.77E-3	ug/g dry	3.77E-3	1/17/11	1A17003	PNNL-AGG-415
13966-28-4	Lead	<7.65E-3	ug/g dry	7.65E-3	1/17/11	1A17003	PNNL-AGG-415
14191-86-7	Mercury	<4.81E-3	ug/g dry	4.81E-3	1/17/11	1A17003	PNNL-AGG-415
HEIS No.	**B27NC7**		**Lab ID:**	**1009027-10**			
14092-98-9	Chromium	<1.69E-2	ug/g dry	1.69E-2	1/17/11	1A17003	PNNL-AGG-415
7440-38-2	Arsenic	<6.94E-2	ug/g dry	6.94E-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	<5.69E-3	ug/g dry	5.69E-3	1/17/11	1A17003	PNNL-AGG-415
14191-86-7	Mercury	<3.57E-3	ug/g dry	3.57E-3	1/17/11	1A17003	PNNL-AGG-415
HEIS No.	**B27ND1**		**Lab ID:**	**1009027-11**			
14092-98-9	Chromium	<1.75E-2	ug/g dry	1.75E-2	1/17/11	1A17003	PNNL-AGG-415
7440-38-2	Arsenic	<7.20E-2	ug/g dry	7.20E-2	1/21/11	1A17003	PNNL-AGG-415
14687-58-2	Selenium	<4.02E-2	ug/g dry	4.02E-2	1/17/11	1A17003	PNNL-AGG-415
14378-37-1	Silver	<1.59E-2	ug/g dry	1.59E-2	1/17/11	1A17003	PNNL-AGG-415
14336-64-2	Cadmium	<2.91E-3	ug/g dry	2.91E-3	1/17/11	1A17003	PNNL-AGG-415
13966-28-4	Lead	<5.90E-3	ug/g dry	5.90E-3	1/17/11	1A17003	PNNL-AGG-415
14191-86-7	Mercury	<3.71E-3	ug/g dry	3.71E-3	1/17/11	1A17003	PNNL-AGG-415
HEIS No.	**B27ND5**		**Lab ID:**	**1009027-12**			
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	<3.98E-2	ug/g dry	3.98E-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	<5.84E-3	ug/g dry	5.84E-3	1/17/11	1A17003	PNNL-AGG-415
14191-86-7	Mercury	<3.67E-3	ug/g dry	3.67E-3	1/17/11	1A17003	PNNL-AGG-415
HEIS No.	**B27ND9**		**Lab ID:**	**1009027-13**			

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B27ND9**		**Lab ID:**	**1009027-13**			
14092-98-9	Chromium	<1.71E-2	ug/g dry	1.71E-2	1/17/11	1A17003	PNNL-AGG-415
7440-38-2	Arsenic	<7.03E-2	ug/g dry	7.03E-2	1/21/11	1A17003	PNNL-AGG-415
14687-58-2	Selenium	<3.92E-2	ug/g dry	3.92E-2	1/17/11	1A17003	PNNL-AGG-415
14378-37-1	Silver	<1.55E-2	ug/g dry	1.55E-2	1/17/11	1A17003	PNNL-AGG-415
14336-64-2	Cadmium	<2.84E-3	ug/g dry	2.84E-3	1/17/11	1A17003	PNNL-AGG-415
13966-28-4	Lead	<5.76E-3	ug/g dry	5.76E-3	1/17/11	1A17003	PNNL-AGG-415
14191-86-7	Mercury	<3.62E-3	ug/g dry	3.62E-3	1/17/11	1A17003	PNNL-AGG-415
HEIS No.	**B27NF3**		**Lab ID:**	**1009027-14**			
14092-98-9	Chromium	<2.00E-2	ug/g dry	2.00E-2	1/17/11	1A17003	PNNL-AGG-415
7440-38-2	Arsenic	<8.22E-2	ug/g dry	8.22E-2	1/21/11	1A17003	PNNL-AGG-415
14687-58-2	Selenium	<4.59E-2	ug/g dry	4.59E-2	1/17/11	1A17003	PNNL-AGG-415
14378-37-1	Silver	<1.81E-2	ug/g dry	1.81E-2	1/17/11	1A17003	PNNL-AGG-415
14336-64-2	Cadmium	<3.32E-3	ug/g dry	3.32E-3	1/17/11	1A17003	PNNL-AGG-415
13966-28-4	Lead	<6.73E-3	ug/g dry	6.73E-3	1/17/11	1A17003	PNNL-AGG-415
14191-86-7	Mercury	<4.23E-3	ug/g dry	4.23E-3	1/17/11	1A17003	PNNL-AGG-415
HEIS No.	**B274V7**		**Lab ID:**	**1009027-15**			
14092-98-9	Chromium	<2.23E-3	ug/g dry	2.23E-3	4/08/11	1D08004	PNNL-AGG-415
7440-38-2	Arsenic	<1.84E-3	ug/g dry	1.84E-3	4/08/11	1D08004	PNNL-AGG-415
14687-58-2	Selenium	<5.13E-3	ug/g dry	5.13E-3	4/08/11	1D08004	PNNL-AGG-415
14378-37-1	Silver	<2.03E-3	ug/g dry	2.03E-3	4/08/11	1D08004	PNNL-AGG-415
14336-64-2	Cadmium	<3.71E-4	ug/g dry	3.71E-4	4/08/11	1D08004	PNNL-AGG-415
13966-28-4	Lead	<7.53E-4	ug/g dry	7.53E-4	4/08/11	1D08004	PNNL-AGG-415
14191-86-7	Mercury	<4.73E-4	ug/g dry	4.73E-4	4/08/11	1D08004	PNNL-AGG-415
13981-97-0	Barium	4.37E-3	ug/g dry	2.02E-4	4/14/11	1D08004	PNNL-AGG-415
HEIS No.	**B274V8**		**Lab ID:**	**1009027-16**			
14092-98-9	Chromium	<1.73E-2	ug/g dry	1.73E-2	4/08/11	1D08004	PNNL-AGG-415
7440-38-2	Arsenic	<1.42E-2	ug/g dry	1.42E-2	4/08/11	1D08004	PNNL-AGG-415
14687-58-2	Selenium	<3.97E-2	ug/g dry	3.97E-2	4/08/11	1D08004	PNNL-AGG-415
14378-37-1	Silver	<1.57E-2	ug/g dry	1.57E-2	4/08/11	1D08004	PNNL-AGG-415
14336-64-2	Cadmium	<2.87E-3	ug/g dry	2.87E-3	4/08/11	1D08004	PNNL-AGG-415
13966-28-4	Lead	<5.83E-3	ug/g dry	5.83E-3	4/08/11	1D08004	PNNL-AGG-415
14191-86-7	Mercury	<3.66E-3	ug/g dry	3.66E-3	4/08/11	1D08004	PNNL-AGG-415
13981-97-0	Barium	4.68E-2	ug/g dry	1.57E-3	4/14/11	1D08004	PNNL-AGG-415
HEIS No.	**B26RF8**		**Lab ID:**	**1009027-17**			
14092-98-9	Chromium	<1.73E-2	ug/g dry	1.73E-2	4/08/11	1D08004	PNNL-AGG-415
7440-38-2	Arsenic	<1.42E-2	ug/g dry	1.42E-2	4/08/11	1D08004	PNNL-AGG-415
14687-58-2	Selenium	<3.97E-2	ug/g dry	3.97E-2	4/08/11	1D08004	PNNL-AGG-415
14378-37-1	Silver	<1.57E-2	ug/g dry	1.57E-2	4/08/11	1D08004	PNNL-AGG-415
14336-64-2	Cadmium	<2.87E-3	ug/g dry	2.87E-3	4/08/11	1D08004	PNNL-AGG-415
13966-28-4	Lead	<5.82E-3	ug/g dry	5.82E-3	4/08/11	1D08004	PNNL-AGG-415
14191-86-7	Mercury	<3.66E-3	ug/g dry	3.66E-3	4/08/11	1D08004	PNNL-AGG-415
13981-97-0	Barium	4.56E-2	ug/g dry	1.56E-3	4/14/11	1D08004	PNNL-AGG-415
HEIS No.	**B26RF9**		**Lab ID:**	**1009027-18**			
14092-98-9	Chromium	<1.72E-2	ug/g dry	1.72E-2	4/08/11	1D08004	PNNL-AGG-415
7440-38-2	Arsenic	1.59E-2	ug/g dry	1.42E-2	4/08/11	1D08004	PNNL-AGG-415
14687-58-2	Selenium	<3.96E-2	ug/g dry	3.96E-2	4/08/11	1D08004	PNNL-AGG-415
14378-37-1	Silver	<1.56E-2	ug/g dry	1.56E-2	4/08/11	1D08004	PNNL-AGG-415
14336-64-2	Cadmium	<2.86E-3	ug/g dry	2.86E-3	4/08/11	1D08004	PNNL-AGG-415

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B26RF9**		**Lab ID:**	**1009027-18**			
13966-28-4	Lead	<5.81E-3	ug/g dry	5.81E-3	4/08/11	1D08004	PNNL-AGG-415
14191-86-7	Mercury	<3.65E-3	ug/g dry	3.65E-3	4/08/11	1D08004	PNNL-AGG-415
13981-97-0	Barium	6.34E-2	ug/g dry	1.56E-3	4/14/11	1D08004	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B26FB7**		**Lab ID:**	**1009027-01**			
14092-98-9	Chromium	8.84E0	ug/g dry	4.11E-1	10/11/10	0J11001	PNNL-AGG-415
7440-38-2	Arsenic	2.42E0	ug/g dry	1.79E-1	10/11/10	0J11001	PNNL-AGG-415
14687-58-2	Selenium	<3.46E-1	ug/g dry	3.46E-1	10/11/10	0J11001	PNNL-AGG-415
14378-37-1	Silver	5.16E-2	ug/g dry	1.12E-2	12/02/10	0J11001	PNNL-AGG-415
14336-64-2	Cadmium	1.05E-1	ug/g dry	2.95E-2	12/02/10	0J11001	PNNL-AGG-415
13966-28-4	Lead	8.89E0	ug/g dry	1.12E-1	12/02/10	0J11001	PNNL-AGG-415
14191-86-7	Mercury	<5.45E-2	ug/g dry	5.45E-2	12/02/10	0J11001	PNNL-AGG-415
HEIS No.	**B26HR6**		**Lab ID:**	**1009027-02**			
14092-98-9	Chromium	4.65E0	ug/g dry	4.02E-1	10/11/10	0J11001	PNNL-AGG-415
7440-38-2	Arsenic	1.32E0	ug/g dry	1.75E-1	10/11/10	0J11001	PNNL-AGG-415
14687-58-2	Selenium	<3.38E-1	ug/g dry	3.38E-1	10/11/10	0J11001	PNNL-AGG-415
14378-37-1	Silver	2.77E-2	ug/g dry	1.09E-2	12/02/10	0J11001	PNNL-AGG-415
14336-64-2	Cadmium	4.44E-2	ug/g dry	2.89E-2	12/02/10	0J11001	PNNL-AGG-415
13966-28-4	Lead	3.54E0	ug/g dry	1.10E-1	12/02/10	0J11001	PNNL-AGG-415
14191-86-7	Mercury	<5.34E-2	ug/g dry	5.34E-2	12/02/10	0J11001	PNNL-AGG-415
HEIS No.	**B26J55**		**Lab ID:**	**1009027-03**			
14092-98-9	Chromium	9.78E0	ug/g dry	8.58E-1	1/20/11	1A20001	PNNL-AGG-415
7440-38-2	Arsenic	1.63E0	ug/g dry	3.74E-1	1/22/11	1A20001	PNNL-AGG-415
14687-58-2	Selenium	<7.22E-1	ug/g dry	7.22E-1	1/20/11	1A20001	PNNL-AGG-415
14378-37-1	Silver	3.17E-2	ug/g dry	2.34E-2	1/20/11	1A20001	PNNL-AGG-415
14336-64-2	Cadmium	<6.17E-2	ug/g dry	6.17E-2	1/20/11	1A20001	PNNL-AGG-415
13966-28-4	Lead	2.84E0	ug/g dry	2.34E-1	1/20/11	1A20001	PNNL-AGG-415
14191-86-7	Mercury	<1.14E-1	ug/g dry	1.14E-1	1/20/11	1A20001	PNNL-AGG-415
HEIS No.	**B26J56**		**Lab ID:**	**1009027-04**			
14092-98-9	Chromium	6.70E0	ug/g dry	7.36E-1	1/20/11	1A20001	PNNL-AGG-415
7440-38-2	Arsenic	4.28E-1	ug/g dry	3.20E-1	1/22/11	1A20001	PNNL-AGG-415
14687-58-2	Selenium	<6.20E-1	ug/g dry	6.20E-1	1/20/11	1A20001	PNNL-AGG-415
14378-37-1	Silver	2.64E-2	ug/g dry	2.00E-2	1/20/11	1A20001	PNNL-AGG-415
14336-64-2	Cadmium	7.25E-2	ug/g dry	5.29E-2	1/20/11	1A20001	PNNL-AGG-415
13966-28-4	Lead	1.67E0	ug/g dry	2.01E-1	1/20/11	1A20001	PNNL-AGG-415
14191-86-7	Mercury	<9.77E-2	ug/g dry	9.77E-2	1/20/11	1A20001	PNNL-AGG-415
HEIS No.	**B27N91**		**Lab ID:**	**1009027-05**			
14092-98-9	Chromium	7.32E0	ug/g dry	7.42E-1	1/20/11	1A20001	PNNL-AGG-415
7440-38-2	Arsenic	6.58E-1	ug/g dry	3.23E-1	1/22/11	1A20001	PNNL-AGG-415
14687-58-2	Selenium	<6.25E-1	ug/g dry	6.25E-1	1/20/11	1A20001	PNNL-AGG-415
14378-37-1	Silver	2.98E-2	ug/g dry	2.02E-2	1/20/11	1A20001	PNNL-AGG-415
14336-64-2	Cadmium	2.66E-1	ug/g dry	5.34E-2	1/20/11	1A20001	PNNL-AGG-415
13966-28-4	Lead	2.30E0	ug/g dry	2.02E-1	1/20/11	1A20001	PNNL-AGG-415
14191-86-7	Mercury	<9.86E-2	ug/g dry	9.86E-2	1/20/11	1A20001	PNNL-AGG-415
HEIS No.	**B27NB1**		**Lab ID:**	**1009027-06**			
14092-98-9	Chromium	9.26E0	ug/g dry	7.90E-1	1/20/11	1A20001	PNNL-AGG-415
7440-38-2	Arsenic	8.01E-1	ug/g dry	3.44E-1	1/22/11	1A20001	PNNL-AGG-415
14687-58-2	Selenium	<6.65E-1	ug/g dry	6.65E-1	1/20/11	1A20001	PNNL-AGG-415
14378-37-1	Silver	2.26E-2	ug/g dry	2.15E-2	1/20/11	1A20001	PNNL-AGG-415
14336-64-2	Cadmium	<5.68E-2	ug/g dry	5.68E-2	1/20/11	1A20001	PNNL-AGG-415
13966-28-4	Lead	3.58E0	ug/g dry	2.15E-1	1/20/11	1A20001	PNNL-AGG-415
14191-86-7	Mercury	<1.05E-1	ug/g dry	1.05E-1	1/20/11	1A20001	PNNL-AGG-415
HEIS No.	**B27NB5**		**Lab ID:**	**1009027-07**			

RCRA Metals By PNNL-AGG-415/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B27NB5**		**Lab ID:**	**1009027-07**			
14092-98-9	Chromium	5.84E0	ug/g dry	8.03E-1	1/20/11	1A20001	PNNL-AGG-415
7440-38-2	Arsenic	6.31E-1	ug/g dry	3.50E-1	1/22/11	1A20001	PNNL-AGG-415
14687-58-2	Selenium	<6.76E-1	ug/g dry	6.76E-1	1/20/11	1A20001	PNNL-AGG-415
14378-37-1	Silver	3.26E-2	ug/g dry	2.19E-2	1/20/11	1A20001	PNNL-AGG-415
14336-64-2	Cadmium	<5.77E-2	ug/g dry	5.77E-2	1/20/11	1A20001	PNNL-AGG-415
13966-28-4	Lead	2.24E0	ug/g dry	2.19E-1	1/20/11	1A20001	PNNL-AGG-415
14191-86-7	Mercury	<1.07E-1	ug/g dry	1.07E-1	1/20/11	1A20001	PNNL-AGG-415
HEIS No.	**B27NB9**		**Lab ID:**	**1009027-08**			
14092-98-9	Chromium	9.67E0	ug/g dry	6.73E-1	1/20/11	1A20001	PNNL-AGG-415
7440-38-2	Arsenic	4.02E-1	ug/g dry	2.93E-1	1/22/11	1A20001	PNNL-AGG-415
14687-58-2	Selenium	<5.66E-1	ug/g dry	5.66E-1	1/20/11	1A20001	PNNL-AGG-415
14378-37-1	Silver	3.18E-2	ug/g dry	1.83E-2	1/20/11	1A20001	PNNL-AGG-415
14336-64-2	Cadmium	<4.84E-2	ug/g dry	4.84E-2	1/20/11	1A20001	PNNL-AGG-415
13966-28-4	Lead	1.79E0	ug/g dry	1.83E-1	1/20/11	1A20001	PNNL-AGG-415
14191-86-7	Mercury	<8.93E-2	ug/g dry	8.93E-2	1/20/11	1A20001	PNNL-AGG-415
HEIS No.	**B27NC3**		**Lab ID:**	**1009027-09**			
14092-98-9	Chromium	7.82E0	ug/g dry	8.08E-1	1/20/11	1A20001	PNNL-AGG-415
7440-38-2	Arsenic	5.27E-1	ug/g dry	3.52E-1	1/22/11	1A20001	PNNL-AGG-415
14687-58-2	Selenium	<6.80E-1	ug/g dry	6.80E-1	1/20/11	1A20001	PNNL-AGG-415
14378-37-1	Silver	<2.20E-2	ug/g dry	2.20E-2	1/20/11	1A20001	PNNL-AGG-415
14336-64-2	Cadmium	<5.81E-2	ug/g dry	5.81E-2	1/20/11	1A20001	PNNL-AGG-415
13966-28-4	Lead	1.09E0	ug/g dry	2.20E-1	1/20/11	1A20001	PNNL-AGG-415
14191-86-7	Mercury	<1.07E-1	ug/g dry	1.07E-1	1/20/11	1A20001	PNNL-AGG-415
HEIS No.	**B27NC7**		**Lab ID:**	**1009027-10**			
14092-98-9	Chromium	6.71E0	ug/g dry	7.66E-1	1/20/11	1A20001	PNNL-AGG-415
7440-38-2	Arsenic	5.21E-1	ug/g dry	3.34E-1	1/22/11	1A20001	PNNL-AGG-415
14687-58-2	Selenium	<6.45E-1	ug/g dry	6.45E-1	1/20/11	1A20001	PNNL-AGG-415
14378-37-1	Silver	<2.09E-2	ug/g dry	2.09E-2	1/20/11	1A20001	PNNL-AGG-415
14336-64-2	Cadmium	<5.51E-2	ug/g dry	5.51E-2	1/20/11	1A20001	PNNL-AGG-415
13966-28-4	Lead	1.15E0	ug/g dry	2.09E-1	1/20/11	1A20001	PNNL-AGG-415
14191-86-7	Mercury	<1.02E-1	ug/g dry	1.02E-1	1/20/11	1A20001	PNNL-AGG-415
HEIS No.	**B27ND1**		**Lab ID:**	**1009027-11**			
14092-98-9	Chromium	7.27E0	ug/g dry	7.14E-1	1/20/11	1A20001	PNNL-AGG-415
7440-38-2	Arsenic	5.86E-1	ug/g dry	3.11E-1	1/22/11	1A20001	PNNL-AGG-415
14687-58-2	Selenium	<6.01E-1	ug/g dry	6.01E-1	1/20/11	1A20001	PNNL-AGG-415
14378-37-1	Silver	2.78E-2	ug/g dry	1.95E-2	1/20/11	1A20001	PNNL-AGG-415
14336-64-2	Cadmium	<5.13E-2	ug/g dry	5.13E-2	1/20/11	1A20001	PNNL-AGG-415
13966-28-4	Lead	1.86E0	ug/g dry	1.95E-1	1/20/11	1A20001	PNNL-AGG-415
14191-86-7	Mercury	<9.48E-2	ug/g dry	9.48E-2	1/20/11	1A20001	PNNL-AGG-415
HEIS No.	**B27ND5**		**Lab ID:**	**1009027-12**			
14092-98-9	Chromium	8.66E0	ug/g dry	6.96E-1	1/20/11	1A20001	PNNL-AGG-415
7440-38-2	Arsenic	7.16E-1	ug/g dry	3.03E-1	1/22/11	1A20001	PNNL-AGG-415
14687-58-2	Selenium	<5.86E-1	ug/g dry	5.86E-1	1/20/11	1A20001	PNNL-AGG-415
14378-37-1	Silver	2.26E-2	ug/g dry	1.90E-2	1/20/11	1A20001	PNNL-AGG-415
14336-64-2	Cadmium	<5.00E-2	ug/g dry	5.00E-2	1/20/11	1A20001	PNNL-AGG-415
13966-28-4	Lead	3.81E0	ug/g dry	1.90E-1	1/20/11	1A20001	PNNL-AGG-415
14191-86-7	Mercury	<9.24E-2	ug/g dry	9.24E-2	1/20/11	1A20001	PNNL-AGG-415
HEIS No.	**B27ND9**		**Lab ID:**	**1009027-13**			

RCRA Metals By PNNL-AGG-415/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B27ND9**	**Lab ID:**		**1009027-13**			
14092-98-9	Chromium	5.69E0	ug/g dry	7.30E-1	1/20/11	1A20001	PNNL-AGG-415
7440-38-2	Arsenic	6.30E-1	ug/g dry	3.18E-1	1/22/11	1A20001	PNNL-AGG-415
14687-58-2	Selenium	<6.15E-1	ug/g dry	6.15E-1	1/20/11	1A20001	PNNL-AGG-415
14378-37-1	Silver	2.58E-2	ug/g dry	1.99E-2	1/20/11	1A20001	PNNL-AGG-415
14336-64-2	Cadmium	7.55E-2	ug/g dry	5.25E-2	1/20/11	1A20001	PNNL-AGG-415
13966-28-4	Lead	2.15E0	ug/g dry	1.99E-1	1/20/11	1A20001	PNNL-AGG-415
14191-86-7	Mercury	<9.69E-2	ug/g dry	9.69E-2	1/20/11	1A20001	PNNL-AGG-415
HEIS No.	**B27NF3**	**Lab ID:**		**1009027-14**			
14092-98-9	Chromium	5.58E0	ug/g dry	7.34E-1	1/20/11	1A20001	PNNL-AGG-415
7440-38-2	Arsenic	7.64E-1	ug/g dry	3.19E-1	1/22/11	1A20001	PNNL-AGG-415
14687-58-2	Selenium	<6.18E-1	ug/g dry	6.18E-1	1/20/11	1A20001	PNNL-AGG-415
14378-37-1	Silver	2.07E-2	ug/g dry	2.00E-2	1/20/11	1A20001	PNNL-AGG-415
14336-64-2	Cadmium	<5.28E-2	ug/g dry	5.28E-2	1/20/11	1A20001	PNNL-AGG-415
13966-28-4	Lead	1.71E0	ug/g dry	2.00E-1	1/20/11	1A20001	PNNL-AGG-415
14191-86-7	Mercury	<9.74E-2	ug/g dry	9.74E-2	1/20/11	1A20001	PNNL-AGG-415
HEIS No.	**B274V7**	**Lab ID:**		**1009027-15**			
14092-98-9	Chromium	6.21E0	ug/g dry	5.50E-1	4/08/11	1D08005	PNNL-AGG-415
7440-38-2	Arsenic	5.55E-1	ug/g dry	2.39E-1	4/08/11	1D08005	PNNL-AGG-415
14687-58-2	Selenium	<4.63E-1	ug/g dry	4.63E-1	4/08/11	1D08005	PNNL-AGG-415
14378-37-1	Silver	4.64E-2	ug/g dry	1.50E-2	4/08/11	1D08005	PNNL-AGG-415
14336-64-2	Cadmium	<3.95E-2	ug/g dry	3.95E-2	4/08/11	1D08005	PNNL-AGG-415
13966-28-4	Lead	1.27E0	ug/g dry	1.50E-1	4/08/11	1D08005	PNNL-AGG-415
14191-86-7	Mercury	<7.30E-2	ug/g dry	7.30E-2	4/08/11	1D08005	PNNL-AGG-415
13981-97-0	Barium	3.29E1	ug/g dry	4.86E-2	4/14/11	1D08005	PNNL-AGG-415
HEIS No.	**B274V8**	**Lab ID:**		**1009027-16**			
14092-98-9	Chromium	7.06E0	ug/g dry	5.66E-1	4/08/11	1D08005	PNNL-AGG-415
7440-38-2	Arsenic	3.70E-1	ug/g dry	2.47E-1	4/08/11	1D08005	PNNL-AGG-415
14687-58-2	Selenium	<4.77E-1	ug/g dry	4.77E-1	4/08/11	1D08005	PNNL-AGG-415
14378-37-1	Silver	4.90E-2	ug/g dry	1.54E-2	4/08/11	1D08005	PNNL-AGG-415
14336-64-2	Cadmium	5.02E-2	ug/g dry	4.07E-2	4/08/11	1D08005	PNNL-AGG-415
13966-28-4	Lead	2.02E0	ug/g dry	1.54E-1	4/08/11	1D08005	PNNL-AGG-415
14191-86-7	Mercury	<7.52E-2	ug/g dry	7.52E-2	4/08/11	1D08005	PNNL-AGG-415
13981-97-0	Barium	4.35E1	ug/g dry	5.01E-2	4/14/11	1D08005	PNNL-AGG-415
HEIS No.	**B26RF8**	**Lab ID:**		**1009027-17**			
14092-98-9	Chromium	2.09E1	ug/g dry	5.79E-1	4/08/11	1D08005	PNNL-AGG-415
7440-38-2	Arsenic	3.75E-1	ug/g dry	2.52E-1	4/08/11	1D08005	PNNL-AGG-415
14687-58-2	Selenium	<4.87E-1	ug/g dry	4.87E-1	4/08/11	1D08005	PNNL-AGG-415
14378-37-1	Silver	3.96E-2	ug/g dry	1.58E-2	4/08/11	1D08005	PNNL-AGG-415
14336-64-2	Cadmium	<4.16E-2	ug/g dry	4.16E-2	4/08/11	1D08005	PNNL-AGG-415
13966-28-4	Lead	1.36E0	ug/g dry	1.58E-1	4/08/11	1D08005	PNNL-AGG-415
14191-86-7	Mercury	<7.68E-2	ug/g dry	7.68E-2	4/08/11	1D08005	PNNL-AGG-415
13981-97-0	Barium	5.95E1	ug/g dry	5.12E-2	4/14/11	1D08005	PNNL-AGG-415
HEIS No.	**B26RF9**	**Lab ID:**		**1009027-18**			
14092-98-9	Chromium	1.85E1	ug/g dry	5.54E-1	4/08/11	1D08005	PNNL-AGG-415
7440-38-2	Arsenic	1.44E0	ug/g dry	2.41E-1	4/08/11	1D08005	PNNL-AGG-415
14687-58-2	Selenium	<4.66E-1	ug/g dry	4.66E-1	4/08/11	1D08005	PNNL-AGG-415
14378-37-1	Silver	5.09E-2	ug/g dry	1.51E-2	4/08/11	1D08005	PNNL-AGG-415
14336-64-2	Cadmium	1.12E0	ug/g dry	3.98E-2	4/08/11	1D08005	PNNL-AGG-415

REVISION 1

RCRA Metals By PNNL-AGG-415/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B26RF9**	**Lab ID:**		**1009027-18**			
13966-28-4	Lead	5.52E0	ug/g dry	1.51E-1	4/08/11	1D08005	PNNL-AGG-415
14191-86-7	Mercury	<7.36E-2	ug/g dry	7.36E-2	4/08/11	1D08005	PNNL-AGG-415
13981-97-0	Barium	8.65E1	ug/g dry	4.90E-2	4/14/11	1D08005	PNNL-AGG-415

REVISION 1

Strontium 90/Acid Extract

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

Lab ID	HEIS No.	Results	MDA	UNC	Analyzed	Batch
1009027-01	B26FB7	<9.17E-1	9.17E-1		10/15/10	0J07001
1009027-02	B26HR6	<8.99E-1	8.99E-1		10/15/10	0J07001
1009027-03	B26J55	<1.18E0	1.18E0		1/12/11	1A05001
1009027-04	B26J56	<1.11E0	1.11E0		1/12/11	1A05001
1009027-05	B27N91	<1.09E0	1.09E0		1/12/11	1A05001
1009027-06	B27NB1	<1.11E0	1.11E0		1/12/11	1A05001
1009027-07	B27NB5	<1.13E0	1.13E0		1/12/11	1A05001
1009027-08	B27NB9	<1.10E0	1.10E0		1/12/11	1A05001
1009027-09	B27NC3	<1.08E0	1.08E0		1/12/11	1A05001
1009027-10	B27NC7	<1.10E0	1.10E0		1/12/11	1A05001
1009027-11	B27ND1	<1.11E0	1.11E0		1/12/11	1A05001
1009027-12	B27ND5	<1.08E0	1.08E0		1/12/11	1A05001
1009027-13	B27ND9	<1.12E0	1.12E0		1/12/11	1A05001
1009027-14	B27NF3	<1.09E0	1.09E0		1/12/11	1A05001
1009027-15	B274V7	<5.83E-1	5.83E-1		4/14/11	1D06008
1009027-16	B274V8	<5.80E-1	5.80E-1		4/14/11	1D06008
1009027-17	B26RF8	<5.82E-1	5.82E-1		4/14/11	1D06008
1009027-18	B26RF9	<5.69E-1	5.69E-1		4/14/11	1D06008

Strontium 90/1:1 Water Extract

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

Lab ID	HEIS No.	Results	MDA	UNC	Analyzed	Batch
1009027-01	B26FB7	<9.29E-1	9.29E-1		10/15/10	0J07010
1009027-02	B26HR6	<9.30E-1	9.30E-1		10/15/10	0J07010
1009027-03	B26J55	<1.12E0	1.12E0		1/12/11	1A06003
1009027-04	B26J56	<1.13E0	1.13E0		1/12/11	1A06003
1009027-05	B27N91	<1.11E0	1.11E0		1/12/11	1A06003
1009027-06	B27NB1	<1.16E0	1.16E0		1/12/11	1A06003
1009027-07	B27NB5	<1.24E0	1.24E0		1/12/11	1A06003
1009027-08	B27NB9	<1.17E0	1.17E0		1/12/11	1A06003
1009027-09	B27NC3	<1.72E0	1.72E0		1/12/11	1A06003
1009027-10	B27NC7	<1.12E0	1.12E0		1/12/11	1A06003
1009027-11	B27ND1	<1.12E0	1.12E0		1/12/11	1A06003
1009027-12	B27ND5	<1.13E0	1.13E0		1/12/11	1A06003
1009027-13	B27ND9	<1.30E0	1.30E0		1/12/11	1A06003
1009027-14	B27NF3	<1.42E0	1.42E0		1/12/11	1A06003
1009027-15	B274V7	<5.90E-1	5.90E-1		4/14/11	1D06005
1009027-16	B274V8	<5.91E-1	5.91E-1		4/14/11	1D06005
1009027-17	B26RF8	<5.90E-1	5.90E-1		4/14/11	1D06005
1009027-18	B26RF9	<6.17E-1	6.17E-1		4/14/11	1D06005

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
1009027-01	B26FB7	<2.32E0	2.32E0		11/15/10	0J07011
1009027-02	B26HR6	<2.33E0	2.33E0		11/15/10	0J07011
1009027-03	B26J55	<2.70E0	2.70E0		1/17/11	1A07003
1009027-04	B26J56	<3.02E0	3.02E0		1/17/11	1A07003
1009027-05	B27N91	<2.52E0	2.52E0		1/17/11	1A07003
1009027-06	B27NB1	<2.78E0	2.78E0		1/17/11	1A07003
1009027-07	B27NB5	<2.79E0	2.79E0		1/17/11	1A07003
1009027-08	B27NB9	<2.85E0	2.85E0		1/17/11	1A07003
1009027-09	B27NC3	<3.78E0	3.78E0		1/17/11	1A07003
1009027-10	B27NC7	<2.77E0	2.77E0		1/17/11	1A07003
1009027-11	B27ND1	<2.73E0	2.73E0		1/17/11	1A07003
1009027-12	B27ND5	<2.76E0	2.76E0		1/17/11	1A07003
1009027-13	B27ND9	<2.78E0	2.78E0		1/17/11	1A07003
1009027-14	B27NF3	<3.30E0	3.30E0		1/17/11	1A07003
1009027-15	B274V7	<1.48E0	1.48E0		4/14/11	1D06006
1009027-16	B274V8	<1.48E0	1.48E0		4/15/11	1D06006
1009027-17	B26RF8	<1.48E0	1.48E0		4/16/11	1D06006
1009027-18	B26RF9	<1.48E0	1.48E0		4/17/11	1D06006

Strontium 90/1:5 Water Extract

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

Lab ID	HEIS No.	Results	MDA	UNC	Analyzed	Batch
1009027-01	B26FB7	<4.59E0	4.59E0		10/15/10	0J07012
1009027-02	B26HR6	<4.65E0	4.65E0		10/15/10	0J07012
1009027-03	B26J55	<5.49E0	5.49E0		1/17/11	1A10006
1009027-04	B26J56	<5.56E0	5.56E0		1/17/11	1A10006
1009027-05	B27N91	<4.95E0	4.95E0		1/17/11	1A10006
1009027-06	B27NB1	<5.24E0	5.24E0		1/17/11	1A10006
1009027-07	B27NB5	<4.87E0	4.87E0		1/17/11	1A10006
1009027-08	B27NB9	<7.29E0	7.29E0		1/17/11	1A10006
1009027-09	B27NC3	<7.30E0	7.30E0		1/17/11	1A10006
1009027-10	B27NC7	<5.43E0	5.43E0		1/17/11	1A10006
1009027-11	B27ND1	<5.63E0	5.63E0		1/17/11	1A10006
1009027-12	B27ND5	<5.57E0	5.57E0		1/17/11	1A10006
1009027-13	B27ND9	<5.50E0	5.50E0		1/17/11	1A10006
1009027-14	B27NF3	<6.43E0	6.43E0		1/17/11	1A10006
1009027-15	B274V7	<3.32E0	3.32E0		4/14/11	1D06007
1009027-16	B274V8	<2.96E0	2.96E0		4/14/11	1D06007
1009027-17	B26RF8	<2.96E0	2.96E0		4/14/11	1D06007
1009027-18	B26RF9	<2.95E0	2.95E0		4/14/11	1D06007

Equilibrium Kd 1:1 Calculations

1009027-01	B26FB7
Analyte	Kd (L/g)
Arsenic	7.62E-01
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-02	B26HR6
Analyte	Kd (L/g)
Arsenic	2.35E-01
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-03	B26J55
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-04	B26J56
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-05	B27N91
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-06	B27NB1
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-07	B27NB5
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-08	B27NB9
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-09	B27NC3
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-10	B27NC7
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-11	B27ND1
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-12	B27ND5
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-13	B27ND9
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-14	B27NF3
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-15	B274V7
Analyte	Kd (L/g)
Arsenic	1.79E-01
Barium	3.05E+00
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-16	B274V8
Analyte	Kd (L/g)
Arsenic	ND
Barium	2.26E+00
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-17	B26RF8
Analyte	Kd (L/g)
Arsenic	ND
Barium	3.58E+00
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-18	B26RF9
Analyte	Kd (L/g)
Arsenic	ND
Barium	3.97E+00
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

Equilibrium Kd 1:2.5 Calculations

1009027-01	B26FB7
Analyte	Kd (L/g)
Arsenic	1.56E-01
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-02	B26HR6
Analyte	Kd (L/g)
Arsenic	1.79E-01
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-03	B26J55
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-04	B26J56
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-05	B27N91
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-06	B27NB1
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-07	B27NB5
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-08	B27NB9
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-09	B27NC3
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-10	B27NC7
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-11	B27ND1
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-12	B27ND5
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-13	B27ND9
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-14	B27NF3
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-15	B274V7
Analyte	Kd (L/g)
Arsenic	ND
Barium	1.61E+00
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-16	B274V8
Analyte	Kd (L/g)
Arsenic	ND
Barium	1.37E+00
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-17	B26RF8
Analyte	Kd (L/g)
Arsenic	ND
Barium	1.89E+00
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-18	B26RF9
Analyte	Kd (L/g)
Arsenic	ND
Barium	2.04E+00
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

Equilibrium Kd 1:5 Calculations

1009027-01	B26FB7
Analyte	Kd (L/g)
Arsenic	1.66E-01
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-02	B26HR6
Analyte	Kd (L/g)
Arsenic	4.31E-02
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-03	B26J55
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-04	B26J56
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-05	B27N91
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-06	B27NB1
Analyte	Kd (L/g)
Arsenic	8.99E-02
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-07	B27NB5
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-08	B27NB9
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-09	B27NC3
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-10	B27NC7
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-11	B27ND1
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-12	B27ND5
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-13	B27ND9
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-14	B27NF3
Analyte	Kd (L/g)
Arsenic	ND
Barium	ND
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-15	B274V7
Analyte	Kd (L/g)
Arsenic	ND
Barium	7.53E+00
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-16	B274V8
Analyte	Kd (L/g)
Arsenic	ND
Barium	9.28E-01
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-17	B26RF8
Analyte	Kd (L/g)
Arsenic	ND
Barium	1.30E+00
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	ND
Strontium-90	ND

1009027-18	B26RF9
Analyte	Kd (L/g)
Arsenic	ND
Barium	1.36E+00
Cadmium	ND
Chromium (Total)	ND
Chromium, Hexavalent	ND
Lead	ND
Mercury	ND
Selenium	ND
Silver	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
Batch 0J14008 - Hexavalent Chromium Digest										
Blank (0J14008-BLK1)				Prepared & Analyzed: 10/14/10						
Chromium, Hexavalent	<2.50E0	2.50E0	ug/g wet							
LCS (0J14008-BS1)				Prepared & Analyzed: 10/14/10						
Chromium, Hexavalent	2.54E1	2.50E0	ug/g wet	2.50E1		102	70-130			
Duplicate (0J14008-DUP1)		**Source: 1009008-01**		Prepared & Analyzed: 10/14/10						
Chromium, Hexavalent	<6.66E-1	6.66E-1	ug/g dry		ND				20	
Matrix Spike (0J14008-MS1)		**Source: 1009027-01**		Prepared & Analyzed: 10/14/10						
Chromium, Hexavalent	4.04E-1	5.83E-1	ug/g dry	5.00E-1	2.00E-3	80.4	75-125			
Batch 1A14001 - Hexavalent Chromium Digest										
Blank (1A14001-BLK1)				Prepared & Analyzed: 03/29/11						
Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g wet							
LCS (1A14001-BS1)				Prepared & Analyzed: 03/29/11						
Chromium, Hexavalent	4.71E-1	5.00E-2	ug/g wet	5.00E-1		94.3	80-120			
Duplicate (1A14001-DUP1)		**Source: 1009008-10**		Prepared & Analyzed: 03/29/11						
Chromium, Hexavalent	<6.92E-1	6.92E-1	ug/g dry		ND				20	
Matrix Spike (1A14001-MS1)		**Source: 1009027-07**		Prepared & Analyzed: 03/29/11						
Chromium, Hexavalent	3.20E-1	6.06E-1	ug/g dry	5.00E-1	1.60E-2	60.8	75-125			
Batch 1C30002 - Hexavalent Chromium Digest										
Blank (1C30002-BLK1)				Prepared & Analyzed: 03/29/11						
Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g wet							

Hexavalent Chromium/Soil - Quality Control

Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C30002 - Hexavalent Chromium Digest										
LCS (1C30002-BS1)				Prepared & Analyzed: 03/29/11						
Chromium, Hexavalent	4.70E-1	5.00E-2	ug/g wet	5.01E-1		93.9	80-120			
Duplicate (1C30002-DUP1)		Source: 1009027-17		Prepared & Analyzed: 03/29/11						
Chromium, Hexavalent	<5.94E-1	5.94E-1	ug/g dry		ND				20	
Matrix Spike (1C30002-MS1)		Source: 1009027-15		Prepared & Analyzed: 03/29/11						
Chromium, Hexavalent	3.60E-1	5.65E-1	ug/g dry	5.00E-1	8.00E-3	70.3	75-125			

Hexavalent Chromium/1:1 Water Extract - Quality Control

Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 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				20	
Post Spike (0J11006-PS1)		**Source: 1009027-02**		Prepared: 10/08/10		Analyzed: 10/11/10				
Chromium, Hexavalent	5.04E-1	N/A	ug/mL	5.00E-1	ND	101	75-125			
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				20	
Post Spike (1A06002-PS1)		**Source: 1009027-13**		Prepared & Analyzed: 01/07/11						
Chromium, Hexavalent	5.19E-1	N/A	ug/mL	5.00E-1	1.20E-2	101	75-125			
Batch 1C23001 - 1:1 Water Extract (Cr6)										
Blank (1C23001-BLK1)				Prepared & Analyzed: 03/23/11						
Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g wet							

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 1C23001 - 1:1 Water Extract (Cr6)										
LCS (1C23001-BS1)				Prepared & Analyzed: 03/23/11						
Chromium, Hexavalent	5.06E-1	5.00E-2	ug/g wet	5.00E-1		101	70-130			
Duplicate (1C23001-DUP1)		Source: 1009027-17		Prepared & Analyzed: 03/23/11						
Chromium, Hexavalent	<4.07E-2	4.07E-2	ug/g dry		ND				20	
Post Spike (1C23001-PS1)		Source: 1009027-15		Prepared & Analyzed: 03/23/11						
Chromium, Hexavalent	5.13E-1	N/A	ug/mL	5.00E-1	ND	103	75-125			

Hexavalent Chromium/1:2.5 Water Extract - Quality Control

Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 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							
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			
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				20	
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							
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			
Duplicate (1A07001-DUP1)		**Source: 1009008-10**		Prepared & Analyzed: 01/07/11						
Chromium, Hexavalent	<1.05E-1	1.05E-1	ug/g dry		ND				20	
Post Spike (1A07001-PS1)		**Source: 1009027-04**		Prepared & Analyzed: 01/07/11						
Chromium, Hexavalent	5.17E-1	N/A	ug/mL	5.00E-1	1.10E-2	101	75-125			
Batch 1C23002 - 1:2.5 Water Extract (Cr6)										
Blank (1C23002-BLK1)				Prepared & Analyzed: 03/23/11						
Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g wet							

Hexavalent Chromium/1:2.5 Water Extract - Quality Control

Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C23002 - 1:2.5 Water Extract (Cr6)										
LCS (1C23002-BS1)				Prepared & Analyzed: 03/23/11						
Chromium, Hexavalent	5.05E-1	5.00E-2	ug/g wet	5.00E-1		101	70-130			
Duplicate (1C23002-DUP1)		Source: 1009027-17		Prepared & Analyzed: 03/23/11						
Chromium, Hexavalent	<1.16E-1	1.16E-1	ug/g dry		ND				20	
Post Spike (1C23002-PS1)		Source: 1009027-15		Prepared & Analyzed: 03/23/11						
Chromium, Hexavalent	5.02E-1	N/A	ug/mL	5.00E-1	ND	101	75-125			

Hexavalent Chromium/1:5 Water Extract - Quality Control

Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 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				20	
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				20	
Post Spike (1A07002-PS1)		**Source: 1009027-06**		Prepared & Analyzed: 01/07/11						
Chromium, Hexavalent	5.33E-1	N/A	ug/mL	5.00E-1	9.00E-3	105	75-125			
Batch 1C23003 - 1:5 Water Extract (Cr6)										
Blank (1C23003-BLK1)				Prepared & Analyzed: 03/23/11						
Chromium, Hexavalent	<5.00E-2	5.00E-2	ug/g wet							

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 1C23003 - 1:5 Water Extract (Cr6)										
LCS (1C23003-BS1)				Prepared & Analyzed: 03/23/11						
Chromium, Hexavalent	5.05E-1	5.00E-2	ug/g wet	5.00E-1		101	70-130			
Duplicate (1C23003-DUP1)		Source: 1009027-17		Prepared & Analyzed: 03/23/11						
Chromium, Hexavalent	<2.41E-1	2.41E-1	ug/g dry		ND				20	
Post Spike (1C23003-PS1)		Source: 1009027-15		Prepared & Analyzed: 03/23/11						
Chromium, Hexavalent	5.11E-1	N/A	ug/mL	5.00E-1	ND	103	75-125			

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

Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 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	
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	

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	
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	

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	
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	

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	
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	

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
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	"							
Mercury	<7.30E-4	7.30E-4	"							
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	
Mercury	<6.83E-4	6.83E-4	"		ND				35	
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	"							
Mercury	<7.30E-4	7.30E-4	"							

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
Batch 1A17001 - 1:1 Water Extract (ICP/ICPMS)										
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	
Mercury	<8.45E-4	8.45E-4	"		ND				35	
Post Spike (1A17001-PS1)		**Source: 1009027-14**		Prepared & Analyzed: 01/17/11						
Chromium	4.95E0	N/A	ug/L	5.00E0	1.56E-2	98.7	75-125			
Arsenic	4.85E0	N/A	"	1.00E0	7.47E-2	477	75-125			
Selenium	5.10E0	N/A	"	5.00E0	ND	106	75-125			
Silver	4.76E0	N/A	"	5.00E0	ND	95.1	75-125			
Cadmium	4.88E0	N/A	"	5.00E0	1.90E-3	97.6	75-125			
Lead	4.99E0	N/A	"	5.00E0	4.26E-3	99.7	75-125			
Mercury	4.78E0	N/A	"	5.00E0	2.24E-2	95.2	75-125			
Batch 1D08002 - 1:1 Water Extract (ICP/ICPMS)										
Blank (1D08002-BLK1)				Prepared & Analyzed: 04/08/11						
Chromium	<3.44E-3	3.44E-3	ug/g wet							
Arsenic	<2.84E-3	2.84E-3	"							
Selenium	<7.92E-3	7.92E-3	"							
Silver	<3.13E-3	3.13E-3	"							
Cadmium	<5.73E-4	5.73E-4	"							
Lead	<1.16E-3	1.16E-3	"							
Mercury	<7.30E-4	7.30E-4	"							
Barium	<3.12E-4	3.12E-4	"							

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
Batch 1D08002 - 1:1 Water Extract (ICP/ICPMS)										
LCS (1D08002-BS1)				Prepared & Analyzed: 04/08/11						
Chromium	4.70E0	3.44E-1	ug/g wet	4.99E0		94.2	80-120			
Arsenic	4.55E0	2.84E-1	"	4.99E0		91.1	80-120			
Selenium	4.75E0	7.92E-1	"	4.99E0		95.1	80-120			
Silver	4.60E0	3.13E-1	"	4.99E0		92.2	80-120			
Cadmium	4.74E0	5.73E-2	"	4.99E0		95.0	80-120			
Lead	4.90E0	1.16E-1	"	4.99E0		98.1	80-120			
Duplicate (1D08002-DUP1)		**Source: 1009027-17**		Prepared & Analyzed: 04/08/11						
Chromium	<3.45E-3	3.45E-3	ug/g dry		ND				35	
Arsenic	<2.84E-3	2.84E-3	"		ND				35	
Selenium	<7.92E-3	7.92E-3	"		ND				35	
Silver	<3.13E-3	3.13E-3	"		ND				35	
Cadmium	<5.73E-4	5.73E-4	"		ND				35	
Lead	<1.16E-3	1.16E-3	"		ND				35	
Mercury	<7.31E-4	7.31E-4	"		ND				35	
Barium	1.77E-2	3.12E-4	"		1.66E-2			6.83	35	
Post Spike (1D08002-PS1)		**Source: 1009027-18**		Prepared & Analyzed: 04/08/11						
Chromium	5.11E0	N/A	ug/L	5.00E0	1.10E-1	99.9	75-125			
Arsenic	5.62E0	N/A	"	5.00E0	5.08E-1	102	75-125			
Selenium	4.49E0	N/A	"	5.00E0	1.84E-1	86.1	75-125			
Silver	5.07E0	N/A	"	5.00E0	3.24E-3	101	75-125			
Cadmium	5.18E0	N/A	"	5.00E0	8.82E-3	103	75-125			
Lead	5.02E0	N/A	"	5.00E0	9.18E-3	100	75-125			
Mercury	5.10E0	N/A	"	5.00E0	2.73E-2	101	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
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	"							
Mercury	<7.30E-4	7.30E-4	"							
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	
Mercury	<1.75E-3	1.75E-3	"		ND				35	
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	"							
Mercury	<7.30E-4	7.30E-4	"							

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
Batch 1A17002 - 1:2.5 Water Extract (ICP/ICPMS)										
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	
Mercury	<1.82E-3	1.82E-3	"		ND				35	
Post Spike (1A17002-PS1)		**Source: 1009027-14**		Prepared & Analyzed: 01/17/11						
Chromium	4.93E0	N/A	ug/L	5.00E0	ND	98.7	75-125			
Arsenic	6.57E0	N/A	"	1.00E0	3.21E-2	654	75-125			
Selenium	4.97E0	N/A	"	5.00E0	ND	106	75-125			
Silver	4.74E0	N/A	"	5.00E0	ND	94.8	75-125			
Cadmium	4.91E0	N/A	"	5.00E0	ND	98.2	75-125			
Lead	4.99E0	N/A	"	5.00E0	4.22E-3	99.8	75-125			
Mercury	4.75E0	N/A	"	5.00E0	1.84E-2	94.7	75-125			
Batch 1D08003 - 1:2.5 Water Extract (ICP/ICPMS)										
Blank (1D08003-BLK1)				Prepared & Analyzed: 04/08/11						
Chromium	<3.44E-3	3.44E-3	ug/g wet							
Arsenic	<2.84E-3	2.84E-3	"							
Selenium	<7.92E-3	7.92E-3	"							
Silver	<3.13E-3	3.13E-3	"							
Cadmium	<5.73E-4	5.73E-4	"							
Lead	<1.16E-3	1.16E-3	"							
Mercury	<7.30E-4	7.30E-4	"							
Barium	<3.12E-4	3.12E-4	"							

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
Batch 1D08003 - 1:2.5 Water Extract (ICP/ICPMS)										
LCS (1D08003-BS1)				Prepared & Analyzed: 04/08/11						
Chromium	4.74E0	3.44E-1	ug/g wet	4.99E0		95.0	80-120			
Arsenic	4.47E0	2.84E-1	"	4.99E0		89.6	80-120			
Selenium	4.99E0	7.92E-1	"	4.99E0		99.9	80-120			
Silver	4.61E0	3.13E-1	"	4.99E0		92.3	80-120			
Cadmium	4.78E0	5.73E-2	"	4.99E0		95.7	80-120			
Lead	4.92E0	1.16E-1	"	4.99E0		98.4	80-120			
Duplicate (1D08003-DUP1)		**Source: 1009027-17**		Prepared & Analyzed: 04/08/11						
Chromium	<8.62E-3	8.62E-3	ug/g dry		ND				35	
Arsenic	<7.10E-3	7.10E-3	"		ND				35	
Selenium	<1.98E-2	1.98E-2	"		ND				35	
Silver	<7.83E-3	7.83E-3	"		ND				35	
Cadmium	<1.43E-3	1.43E-3	"		ND				35	
Lead	<2.91E-3	2.91E-3	"		ND				35	
Mercury	<1.83E-3	1.83E-3	"		ND				35	
Barium	2.92E-2	7.81E-4	"		3.15E-2			7.57	35	
Post Spike (1D08003-PS1)		**Source: 1009027-18**		Prepared & Analyzed: 04/08/11						
Chromium	5.05E0	N/A	ug/L	5.00E0	8.65E-2	99.3	75-125			
Arsenic	5.49E0	N/A	"	5.00E0	4.91E-1	100	75-125			
Selenium	5.12E0	N/A	"	5.00E0	ND	112	75-125			
Silver	5.03E0	N/A	"	5.00E0	2.01E-3	101	75-125			
Cadmium	5.13E0	N/A	"	5.00E0	1.01E-2	102	75-125			
Lead	5.11E0	N/A	"	5.00E0	6.32E-3	102	75-125			
Mercury	5.02E0	N/A	"	5.00E0	2.77E-2	99.9	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
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	"							
Mercury	<7.30E-4	7.30E-4	"							
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	
Mercury	<3.48E-3	3.48E-3	"		ND				35	
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	"							
Mercury	<7.30E-4	7.30E-4	"							

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
Batch 1A17003 - 1:5 Water Extract (ICP/ICPMS)										
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	
Mercury	<3.04E-3	3.04E-3	"		ND				35	
Post Spike (1A17003-PS1)		**Source: 1009027-14**		Prepared & Analyzed: 01/17/11						
Chromium	4.92E0	N/A	ug/L	5.00E0	ND	98.7	75-125			
Arsenic	4.99E0	N/A	"	1.00E0	1.65E-1	483	75-125			
Selenium	5.01E0	N/A	"	5.00E0	ND	111	75-125			
Silver	4.76E0	N/A	"	5.00E0	ND	95.3	75-125			
Cadmium	4.90E0	N/A	"	5.00E0	ND	98.1	75-125			
Lead	4.95E0	N/A	"	5.00E0	2.66E-3	98.9	75-125			
Mercury	4.64E0	N/A	"	5.00E0	1.21E-2	92.7	75-125			
Batch 1D08004 - 1:5 Water Extract (ICP/ICPMS)										
Blank (1D08004-BLK1)				Prepared & Analyzed: 04/08/11						
Chromium	<3.44E-3	3.44E-3	ug/g wet							
Arsenic	<2.84E-3	2.84E-3	"							
Selenium	<7.92E-3	7.92E-3	"							
Silver	<3.13E-3	3.13E-3	"							
Cadmium	<5.73E-4	5.73E-4	"							
Lead	<1.16E-3	1.16E-3	"							
Mercury	<7.30E-4	7.30E-4	"							
Barium	<3.12E-4	3.12E-4	"							

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
Batch 1D08004 - 1:5 Water Extract (ICP/ICPMS)										
LCS (1D08004-BS1)				Prepared & Analyzed: 04/08/11						
Chromium	4.67E0	3.44E-1	ug/g wet	5.00E0		93.4	80-120			
Arsenic	4.35E0	2.84E-1	"	5.00E0		87.0	80-120			
Selenium	4.76E0	7.92E-1	"	5.00E0		95.4	80-120			
Silver	4.58E0	3.13E-1	"	5.00E0		91.7	80-120			
Cadmium	4.69E0	5.73E-2	"	5.00E0		93.9	80-120			
Lead	4.81E0	1.16E-1	"	5.00E0		96.3	80-120			
Barium	5.10E0	3.12E-2	"				80-120			
Duplicate (1D08004-DUP1)		**Source: 1009027-17**		Prepared & Analyzed: 04/08/11						
Chromium	<1.73E-2	1.73E-2	ug/g dry		ND				35	
Arsenic	<1.42E-2	1.42E-2	"		ND				35	
Selenium	<3.97E-2	3.97E-2	"		ND				35	
Silver	<1.57E-2	1.57E-2	"		ND				35	
Cadmium	<2.87E-3	2.87E-3	"		ND				35	
Lead	<5.82E-3	5.82E-3	"		ND				35	
Mercury	<3.66E-3	3.66E-3	"		ND				35	
Barium	5.02E-2	1.56E-3	"		4.56E-2			9.64	35	
Post Spike (1D08004-PS1)		**Source: 1009027-18**		Prepared & Analyzed: 04/08/11						
Chromium	5.03E0	N/A	ug/L	5.00E0	4.70E-2	99.7	75-125			
Arsenic	5.58E0	N/A	"	5.00E0	6.36E-1	98.9	75-125			
Selenium	4.83E0	N/A	"	5.00E0	ND	103	75-125			
Silver	5.07E0	N/A	"	5.00E0	8.92E-4	101	75-125			
Cadmium	5.19E0	N/A	"	5.00E0	4.33E-3	104	75-125			
Lead	5.07E0	N/A	"	5.00E0	4.82E-3	101	75-125			
Mercury	5.03E0	N/A	"	5.00E0	1.92E-2	100	75-125			

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

Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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	"							
Mercury	<1.25E-2	1.25E-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	
Mercury	<5.77E-2	5.77E-2	"		ND				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	
Mercury	<5.38E-2	5.38E-2	"		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
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	"							
Mercury	<2.50E-2	2.50E-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	
Mercury	<1.19E-1	1.19E-1	"		ND				35	
Post Spike (1A20001-PS1)		**Source: 1009027-14**		Prepared & Analyzed: 01/20/11						
Chromium	1.93E1	N/A	ug/L	5.00E0	1.43E1	99	75-125			
Arsenic	6.73E0	N/A	"	5.00E0	1.96E0	95.3	75-125			
Selenium	4.89E0	N/A	"	5.00E0	9.92E-4	97.8	75-125			
Silver	4.56E0	N/A	"	5.00E0	5.31E-2	90.1	75-125			
Cadmium	4.79E0	N/A	"	5.00E0	1.12E-1	93.5	75-125			
Lead	8.85E0	N/A	"	5.00E0	4.38E0	89.4	75-125			
Mercury	4.29E0	N/A	"	5.00E0	ND	86.4	75-125			

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

Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D08005 - ASTM D 5198 (ICP/ICPMS)										
Blank (1D08005-BLK1)				Prepared & Analyzed: 04/08/11						
Chromium	<1.41E-1	1.41E-1	ug/g wet							
Arsenic	<6.15E-2	6.15E-2	"							
Selenium	<1.19E-1	1.19E-1	"							
Silver	<3.85E-3	3.85E-3	"							
Cadmium	<1.02E-2	1.02E-2	"							
Lead	<3.85E-2	3.85E-2	"							
Mercury	<1.88E-2	1.88E-2	"							
Barium	<4.68E-3	4.68E-3	"							
LCS (1D08005-BS1)				Prepared & Analyzed: 04/08/11						
Chromium	5.57E0	9.42E-1	ug/g wet	5.80E0		96.0	80-120			
Arsenic	5.53E0	4.10E-1	"	5.80E0		95.5	80-120			
Selenium	5.84E0	7.93E-1	"	5.80E0		101	80-120			
Silver	5.43E0	2.56E-2	"	5.80E0		93.7	80-120			
Cadmium	5.72E0	6.77E-2	"	5.80E0		98.7	80-120			
Lead	5.83E0	2.57E-1	"	5.80E0		101	80-120			
Barium	5.76E0	3.12E-2	"				80-120			
Duplicate (1D08005-DUP1)		**Source: 1009027-17**		Prepared & Analyzed: 04/08/11						
Chromium	2.13E1	5.78E-1	ug/g dry		2.09E1			1.62	35	
Arsenic	4.10E-1	2.52E-1	"		3.75E-1			9.07	35	
Selenium	<4.87E-1	4.87E-1	"		ND				35	
Silver	3.92E-2	1.58E-2	"		3.96E-2			1.13	35	
Cadmium	<4.16E-2	4.16E-2	"		ND				35	
Lead	1.25E0	1.58E-1	"		1.36E0			7.73	35	
Mercury	<7.68E-2	7.68E-2	"		ND				35	
Barium	5.86E1	5.11E-2	"		5.95E1			1.60	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
Batch 1D08005 - ASTM D 5198 (ICP/ICPMS)										
Post Spike (1D08005-PS1)		**Source: 1009027-18**		Prepared & Analyzed: 04/08/11						
Chromium	6.63E1	N/A	ug/L	3.33E0	6.29E1	105	75-125			
Arsenic	8.27E0	N/A	"	3.33E0	4.90E0	101	75-125			
Selenium	3.42E0	N/A	"	3.33E0	ND	105	75-125			
Silver	3.09E0	N/A	"	3.33E0	1.73E-1	87.4	75-125			
Cadmium	6.81E0	N/A	"	3.33E0	3.80E0	90.3	75-125			
Lead	2.13E1	N/A	"	3.33E0	1.88E1	75.2	75-125			
Mercury	2.58E0	N/A	"	3.33E0	7.21E-2	75.1	75-125			

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	
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	
Batch 1D06008 - ASTM D 5198 (RadChem)										
Blank (1D06008-BLK1)				Prepared: 04/06/11		Analyzed: 04/14/11				
Strontium-90	<1.69E-1	1.69E-1	pCi/g wet							

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 1D06008 - ASTM D 5198 (RadChem)										
LCS (1D06008-BS1)				Prepared: 04/06/11		Analyzed: 04/14/11				
Strontium-90	6.16E1	1.69E-1	pCi/g wet	5.94E1		104	80-120			
Duplicate (1D06008-DUP1)		Source: 1009027-17		Prepared: 04/06/11		Analyzed: 04/14/11				
Strontium-90	<5.82E-1	5.82E-1	pCi/g dry		ND				35	
Matrix Spike (1D06008-MS1)		Source: 1009027-17		Prepared: 04/06/11		Analyzed: 04/14/11				
Strontium-90	6.31E1	5.82E-1	pCi/g dry	6.35E1	ND	100	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	
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	
Batch 1D06005 - 1:1 Water Extract (RadChem)										
Blank (1D06005-BLK1)				Prepared: 04/06/11		Analyzed: 04/14/11				
Strontium-90	<5.90E-1	5.90E-1	pCi/g wet							
LCS (1D06005-BS1)				Prepared: 04/06/11		Analyzed: 04/14/11				
Strontium-90	6.26E1	5.90E-1	pCi/g wet	5.94E1		105	80-120			

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 1D06005 - 1:1 Water Extract (RadChem)										
Duplicate (1D06005-DUP1)		**Source: 1009027-17**		Prepared: 04/06/11		Analyzed: 04/14/11				
Strontium-90	<5.91E-1	5.91E-1	pCi/g dry		ND				35	
Matrix Spike (1D06005-MS1)		**Source: 1009027-17**		Prepared: 04/06/11		Analyzed: 04/14/11				
Strontium-90	6.07E1	5.90E-1	pCi/g dry	1.02E2	ND	59.4	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	
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	
Batch 1D06006 - 1:2.5 Water Extract (RadChem)										
Blank (1D06006-BLK1)				Prepared: 04/06/11		Analyzed: 04/18/11				
Strontium-90	<5.90E-1	5.90E-1	pCi/g wet							
LCS (1D06006-BS1)				Prepared: 04/06/11		Analyzed: 04/19/11				
Strontium-90	6.15E1	5.90E-1	pCi/g wet	5.94E1		104	80-120			

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 1D06006 - 1:2.5 Water Extract (RadChem)										
Duplicate (1D06006-DUP1)		**Source: 1009027-17**		Prepared: 04/06/11		Analyzed: 04/20/11				
Strontium-90	<1.48E0	1.48E0	pCi/g dry		ND				35	
Matrix Spike (1D06006-MS1)		**Source: 1009027-17**		Prepared: 04/06/11		Analyzed: 04/21/11				
Strontium-90	6.15E1	1.48E0	pCi/g dry	6.35E1	ND	97.2	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	
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	
Batch 1D06007 - 1:5 Water Extract (RadChem)										
Blank (1D06007-BLK1)				Prepared: 04/06/11		Analyzed: 04/14/11				
Strontium-90	<5.90E-1	5.90E-1	pCi/g wet							
LCS (1D06007-BS1)				Prepared: 04/06/11		Analyzed: 04/14/11				
Strontium-90	6.08E1	5.90E-1	pCi/g wet	5.94E1		102	80-120			

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 1D06007 - 1:5 Water Extract (RadChem)										
Duplicate (1D06007-DUP1)		**Source: 1009027-17**		Prepared: 04/06/11		Analyzed: 04/14/11				
Strontium-90	<2.96E0	2.96E0	pCi/g dry		ND				35	
Matrix Spike (1D06007-MS1)		**Source: 1009027-17**		Prepared: 04/06/11		Analyzed: 04/14/11				
Strontium-90	6.19E1	2.96E0	pCi/g dry	6.35E1	ND	99.9	75-125			

Strontium 90 - Quality Control		
ASTM D 5198 (RadChem)		
Sample ID	HEIS ID	Tracer Recovery
1009027-01	B26FB7	93.5%
1009027-02	B26HR6	94.7%
1009027-03	B26J55	92.7%
1009027-04	B26J56	94.1%
1009027-05	B27N91	93.7%
1009027-06	B27NB1	94.5%
1009027-07	B27NB5	93.6%
1009027-08	B27NB9	94.6%
1009027-09	B27NC3	93.2%
1009027-10	B27NC7	92.6%
1009027-11	B27ND1	92.2%
1009027-12	B27ND5	93.3%
1009027-13	B27ND9	92.4%
1009027-14	B27NF3	94.3%
1009027-15	B274V7	95.4%
1009027-16	B274V8	97.3%
1009027-17	B26RF8	94.7%
1009027-18	B26RF9	97.1%
Strontium 90 - Quality Control		
1:1 Water Extract (RadChem)		
Sample ID	HEIS ID	Tracer Recovery
1009027-01	B26FB7	94.7%
1009027-02	B26HR6	92.9%
1009027-03	B26J55	91.4%
1009027-04	B26J56	90.7%
1009027-05	B27N91	90.8%
1009027-06	B27NB1	91.7%
1009027-07	B27NB5	93.1%
1009027-08	B27NB9	91.9%
1009027-09	B27NC3	91.7%
1009027-10	B27NC7	92.0%
1009027-11	B27ND1	90.9%
1009027-12	B27ND5	91.0%
1009027-13	B27ND9	91.0%
1009027-14	B27NF3	89.5%
1009027-15	B274V7	91.1%
1009027-16	B274V8	90.9%
1009027-17	B26RF8	92.4%
1009027-18	B26RF9	90.0%

Strontium 90 - Quality Control		
1:2.5 Water Extract (RadChem)		
Sample ID	HEIS ID	Tracer Recovery
1009027-01	B26FB7	91.2%
1009027-02	B26HR6	90.1%
1009027-03	B26J55	90.4%
1009027-04	B26J56	91.2%
1009027-05	B27N91	90.6%
1009027-06	B27NB1	90.8%
1009027-07	B27NB5	92.0%
1009027-08	B27NB9	92.5%
1009027-09	B27NC3	91.0%
1009027-10	B27NC7	90.4%
1009027-11	B27ND1	90.6%
1009027-12	B27ND5	90.5%
1009027-13	B27ND9	91.0%
1009027-14	B27NF3	90.3%
1009027-15	B274V7	92.7%
1009027-16	B274V8	94.0%
1009027-17	B26RF8	94.1%
1009027-18	B26RF9	94.0%
Strontium 90 - Quality Control		
1:5 Water Extract (RadChem)		
Sample ID	HEIS ID	Tracer Recovery
1009027-01	B26FB7	90.6%
1009027-02	B26HR6	93.8%
1009027-03	B26J55	92.1%
1009027-04	B26J56	90.5%
1009027-05	B27N91	92.1%
1009027-06	B27NB1	91.0%
1009027-07	B27NB5	93.0%
1009027-08	B27NB9	89.8%
1009027-09	B27NC3	91.7%
1009027-10	B27NC7	91.1%
1009027-11	B27ND1	92.4%
1009027-12	B27ND5	92.7%
1009027-13	B27ND9	92.7%
1009027-14	B27NF3	93.1%
1009027-15	B274V7	93.9%
1009027-16	B274V8	93.9%
1009027-17	B26RF8	92.7%
1009027-18	B26RF9	93.5%

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-225-003 REVISION 1 PAGE 1 OF 1
COLLECTOR Bailey	COMPANY CONTACT DALE DYEKMAN	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N AIR QUALITY ☐ DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7508 (199-B8-9); BOTTOM OF AQUIFER	PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-BC Soils		SAF NO. F10-225	
ICE CHEST NO. N/A	FIELD LOGBOOK NO. HNF-N-507-9 PG#63	ACTUAL SAMPLE DEPTH 212.0-214.5 Ft	COA 300078ES10	METHOD OF SHIPMENT FEDERAL EXPRESS
SHIPPED TO Environmental Sciences Laboratory	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR	

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS		
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	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~~ BDW 2L Plastic tub 10/11/10
		NO. OF CONTAINER(5)	1
		VOLUME	1000mL
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	KD - Batch (No CAS);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B26FB7	SOIL	8-23-10	0800	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM Bailey / [signature]	DATE/TIME 8-23-10 / 1145	RECEIVED BY/STORED IN M0413 SSUR2 / DWB 8/23/10	DATE/TIME 8-23-10 / 1145
RELINQUISHED BY/REMOVED FROM SSU-R1 DWB	DATE/TIME 8/24/10 10:00	RECEIVED BY/STORED IN SSU-R1 [signature]	DATE/TIME 8/24/10 10:00
RELINQUISHED BY/REMOVED FROM [signature]	DATE/TIME 8/24/10 10:30	RECEIVED BY/STORED IN Ben Williams [signature]	DATE/TIME 8/24/10 10:30
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** Physical Properties laboratory: Conduct the hydraulic conductivity test (ASTM 5084 or 2434) as appropriate to the sample matrix.

BRM # 13564

ORIGINAL

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

SDG # ESL090019

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-225-004 REVISION 1 PAGE 1 OF 1
COLLECTOR Bailey	COMPANY CONTACT DALE DYEKMAN	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N AIR QUALITY ☐ DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7508 (199-B8-9); FIVE FEET INTO RUM	PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-BC Soils		SAF NO. F10-225	
ICE CHEST NO. N/A	FIELD LOGBOOK NO. HNF-N-507-9 PG#63	ACTUAL SAMPLE DEPTH 217.0-219.5 Ft	COA 300078ES10	METHOD OF SHIPMENT FEDERAL EXPRESS
SHIPPED TO Environmental Sciences Laboratory	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR	

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	~~Split Spoon Liner~~ 2L Plastic Tub BDW 10/11/10
NO. OF CONTAINER(S)	1
VOLUME	1000mL
SAMPLE ANALYSIS	KD - Batch (No CAS);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B26HR6	SOIL	8-23-10	1030	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM JK BAILEY / JKB	DATE/TIME 8-23-10 / 1145	RECEIVED BY/STORED IN M0413 SSUR2 DWB 8/23/10	DATE/TIME 8-23-10 / 1145
RELINQUISHED BY/REMOVED FROM SSU-RA	DATE/TIME 8/24/10 10:00	RECEIVED BY/STORED IN Brotherton	DATE/TIME 8/24/10 10:00
RELINQUISHED BY/REMOVED FROM Brotherton	DATE/TIME 8/24/10 10:30	RECEIVED BY/STORED IN Ben Williams	DATE/TIME 8/24/10 10:30
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** Physical Properties laboratory: Conduct the hydraulic conductivity test (ASTM 5084 or 2434) as appropriate to the sample matrix.

BRM # 13564

ORIGINAL

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			F10-225-014 REVISION 1	PAGE 1 OF 1
COLLECTOR BAILEY	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 375-4688	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7784 (199-B2-16); Bottom of Aquifer	**PROJECT DESIGNATION** 100 Area Remedial Investigation/Feasibility Analysis - 100-BC Soils		**SAF NO.** F10-225	**AIR QUALITY** ☐	45 Days / 45 Days
ICE CHEST NO. N/A	**FIELD LOGBOOK NO.** HNF-N-585-3 / 71	**ACTUAL SAMPLE DEPTH** 148.1'	**COA** 300078ES10	**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)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	1
VOLUME	1000mL
SAMPLE ANALYSIS	KD - Batch {No CAS};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B26J55	SOIL	11-5-10	1300	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM JC BAILEY	**DATE/TIME** 11-5-10 1545	**RECEIVED BY/STORED IN** LH0413 SSUR1	**DATE/TIME** 11/5/10 1545
RELINQUISHED BY/REMOVED FROM SSU-R1	**DATE/TIME** NOV 11 2010 0710	**RECEIVED BY/STORED IN** CM Paulsen CM Cal	**DATE/TIME** NOV 11 2010 0710
RELINQUISHED BY/REMOVED FROM CM Paulsen CM Cal	**DATE/TIME** NOV 11 2010 1330	**RECEIVED BY/STORED IN** D. Smith	**DATE/TIME** NOV 11 2010 1330
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** Physical Properties laboratory: Conduct the hydraulic conductivity test (ASTM 5084 or 2434) as appropriate to the sample matrix.

BRM# 13564

ORIGINAL

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

SDG# ESL090019

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-225-016 REVISION 1 PAGE 1 OF 1
COLLECTOR: BAILEY	COMPANY CONTACT: DYEKMAN, DL	TELEPHONE NO.: 375-4688	PROJECT COORDINATOR: DYEKMAN, DL	PRICE CODE: 8N; DATA TURNAROUND: 45 Days / 45 Days
SAMPLING LOCATION: C7784 (199-B2-16); 5 feet into RUM	PROJECT DESIGNATION: 100 Area Remedial Investigation/Feasibility Analysis - 100-BC Soils		SAF NO.: F10-225	AIR QUALITY: ☐
ICE CHEST NO.: N/A	FIELD LOGBOOK NO.: HNF-N-585-3 / 71	ACTUAL SAMPLE DEPTH: 152.7'	COA: 300078ES10	METHOD OF SHIPMENT: FEDERAL EXPRESS
SHIPPED TO: Environmental Sciences Laboratory	OFFSITE PROPERTY NO.: SEE PTR		BILL OF LADING/AIR BILL NO.: SEE PTR	

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS		
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	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	
B26J56	SOIL	11-5-10	1450	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: JKBAILEY JKB	DATE/TIME: 11-5-10 - 1545	RECEIVED BY/STORED IN: NO 413 SSU-R1	DATE/TIME: 11/5/10 1545
RELINQUISHED BY/REMOVED FROM: SSU-R1	DATE/TIME: NOV 11 2010 0710	RECEIVED BY/STORED IN: CM Aguilar CM Cg	DATE/TIME: NOV 11 2010 0710
RELINQUISHED BY/REMOVED FROM: CM Aguilar CM Cg	DATE/TIME: NOV 11 2010 1330	RECEIVED BY/STORED IN: D Smith DSm	DATE/TIME: NOV 11 2010 1330
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** Physical Properties laboratory: Conduct the hydraulic conductivity test (ASTM 5084 or 2434) as appropriate to the sample matrix.

BRM# 13564

ORIGINAL

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		F10-225-042 REVISION 1	PAGE 1 OF 1
COLLECTOR Turner	**COMPANY CONTACT** DALE DYEKMAN	**TELEPHONE NO.** (509) 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **DATA TURNAROUND**
SAMPLING LOCATION C7783 (199-B2-15); I-001	**PROJECT DESIGNATION** 100 Area Remedial Investigation/Feasibility Analysis - 100-BC Soils		**SAF NO.** F10-225	**AIR QUALITY** ☐ 45 Days / 45 Days
ICE CHEST NO. N/A	**FIELD LOGBOOK NO.** HNF-N-585-15 PG16	**ACTUAL SAMPLE DEPTH** 144.8-147.3 Ft	**COA** 300078ES10	**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)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	1
VOLUME	1000mL
SAMPLE ANALYSIS	KD - Batch (No CAS);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B27N91	SOIL	12-3-10	0930	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
A. Turner	12-3-10 1415	MO 413 SSLRH	12-3-10 1415
RELINQUISHED BY/REMOVED FROM SSLRH	DATE/TIME DEC 06 2010 1200	RECEIVED BY/STORED IN M. A. White	DATE/TIME DEC 06 2010 1200
RELINQUISHED BY/REMOVED FROM M. A. White	DATE/TIME DEC 06 2010 13:20	RECEIVED BY/STORED IN Igor Kutyavin	DATE/TIME DEC 06 2010 13:20
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** Physical Properties laboratory: Conduct the hydraulic conductivity test (ASTM 5084 or 2434) as appropriate to the sample matrix.

BRM # 13564

☐ ORIGINAL

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			F10-225-048 REVISION 1	PAGE 1 OF 1
COLLECTOR Farris, Higuera, Zuker	**COMPANY CONTACT** DALE DYEKMAN	**TELEPHONE NO.** (509) 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7783 (199-B2-15); I-002	**PROJECT DESIGNATION** 100 Area Remedial Investigation/Feasibility Analysis - 100-BC Soils		**SAF NO.** F10-225	**AIR QUALITY** ☐	45 Days / 45 Days
ICE CHEST NO. N/A	**FIELD LOGBOOK NO.** HWF-N-595-15 #17	**ACTUAL SAMPLE DEPTH** 151-153.5 ft	**COA** 300078ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** CX 12-6-10 N/A		**BILL OF LADING/AIR BILL NO.** N/A		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	None
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	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)	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	
B27NB1	SOIL	12-6-10	1245	2

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Calvin Farris	12-6-10 1400	SSU-R1	DEC 06 2010 1600
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
SSU-R1	DEC 08 2010 0900	J.R. Aguilar	DEC 08 2010 0900
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J.R. Aguilar	DEC 08 2010 13:10	Igor Kufnyak	DEC 08 2010 13:10
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** Physical Properties laboratory: Conduct the hydraulic conductivity test (ASTM 5084 or 2434) as appropriate to the sample matrix.

BRM # 13564

☐ ORIGINAL

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

SDG # ESL090019

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F10-225-051 REVISION 1 PAGE 1 OF 1
COLLECTOR Farris, Higuera, Zunker	**COMPANY CONTACT** DALE DYEKMAN	**TELEPHONE NO.** (509) 373-2530	**PROJECT COORDINATOR** RADLOFF, AW	**PRICE CODE** 8N **DATA TURNAROUND**
SAMPLING LOCATION C7783 (199-B2-15); I-003	**PROJECT DESIGNATION** 100 Area Remedial Investigation/Feasibility Analysis - 100-BC Soils		**SAF NO.** F10-225	**AIR QUALITY** ☐ **45 Days / 45 Days**
ICE CHEST NO. N/A	**FIELD LOGBOOK NO.** HNF-N-585-5A17	**ACTUAL SAMPLE DEPTH** 155.4 - 155.36	**COA** 300078ES10	**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)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	1
VOLUME	1000mL
SAMPLE ANALYSIS	KD - Batch {No CAS};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B27NB5	SOIL	12-6-10	1435	✓

CHAIN OF POSSESSION	SIGN/ PRINT NAMES		
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
Caleb Farris / Caleb Farris	12-6-10 1600	SSU-R1 DEC 06 2010	1600
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
SSU-R1 DEC 08 2010	0900	J.R. Aguilar DEC 08 2010	0900
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
J.R. Aguilar DEC 08 2010	13:10	Igor Kudryavtsev DEC 08 2010	13:10
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** Physical Properties laboratory: Conduct the hydraulic conductivity test (ASTM 5084 or 2434) as appropriate to the sample matrix.

BRM # 13564

☐ ORIGINAL

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

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-225-054 REVISION 1 PAGE 1 OF 1
COLLECTOR Farris, Higuera, Zunker	**COMPANY CONTACT** DALE DYEKMAN	**TELEPHONE NO.** (509) 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **DATA TURNAROUND** **AIR QUALITY** ☐ 45 Days / 45 Days
SAMPLING LOCATION C7783 (199-B2-15); I-004	**PROJECT DESIGNATION** 100 Area Remedial Investigation/Feasibility Analysis - 100-BC Soils		**SAF NO.** F10-225	
ICE CHEST NO. N/A	**FIELD LOGBOOK NO.** HNF-W-595-15 #19	**ACTUAL SAMPLE DEPTH** 160.5-163 ft	**COA** 300078ES10	**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)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	1
VOLUME	1000mL
SAMPLE ANALYSIS	KD - Batch (No CAS);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B27NB9	SOIL	12-7-10	1210	✓

CHAIN OF POSSESSION	SIGN/ PRINT NAMES		
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
Calvin Farris / Calvin Farris	12-7-10 1325	HNF-413 SSU-R1	12-7-10 1325
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
SSU-R1	DEC 08 2010 0900	J.R. Aguilar	DEC 08 2010 0900
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
J.R. Aguilar	DEC 08 2010 1310	Igor Kufnyakov	DEC 08 2010 1310
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**

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** Physical Properties laboratory: Conduct the hydraulic conductivity test (ASTM 5084 or 2434) as appropriate to the sample matrix.

BRM #13564

ORIGINAL

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

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-225-057 REVISION 1 PAGE 1 OF 1
COLLECTOR Farris, Garcia, Zonker	**COMPANY CONTACT** DALE DYEKMAN	**TELEPHONE NO.** (509) 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **DATA TURNAROUND** **AIR QUALITY** ☐ 45 Days / 45 Days
SAMPLING LOCATION C7783 (199-B2-15); I-005	**PROJECT DESIGNATION** 100 Area Remedial Investigation/Feasibility Analysis - 100-BC Soils		**SAF NO.** F10-225	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-585 15 425	**ACTUAL SAMPLE DEPTH** 165.9 - 168.4'	**COA** 300078ES10	**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)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	1
VOLUME	1000mL
SAMPLE ANALYSIS	KD - Batch (No CAS);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	[redacted]
B27NC3	SOIL	12-13-10	0820	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
Calvin Farris / Calvin Farris	12-13-10 1400	MO-413 SSU-R1	DEC 13 2010 1400
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
MO-413 SSU-R1	DEC 14 2010 1130	M. A. White	DEC 14 2010 1130
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
M. A. White	DEC 14 2010 1300	Igor Kutnyak	DEC 14 2010 1300
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** Physical Properties laboratory: Conduct the hydraulic conductivity test (ASTM 5084 or 2434) as appropriate to the sample matrix.

BRM# 13569

ORIGINAL

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

SDG# ES1090049

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F10-225-060 REVISION 1 PAGE 1 OF 1
COLLECTOR Ferris, Garcia, Zunker	**COMPANY CONTACT** DALE DYEKMAN	**TELEPHONE NO.** (509) 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7783 (199-B2-15); I-006	**PROJECT DESIGNATION** 100 Area Remedial Investigation/Feasibility Analysis - 100-BC Soils		**SAF NO.** F10-225
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-585-15 #25	**ACTUAL SAMPLE DEPTH** 171.2' 173.7'	**COA** 300078ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	1
VOLUME	1000mL
SAMPLE ANALYSIS	KD - Batch (No CAS);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B27NC7	SOIL	12-13-10	1300	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Calvin Ferris / Calvin Ferris	12-13-10 1400	MO-413 SSU-R1	DEC 13 2010 1400
MO-413 SSU-R1	DEC 14 2010 1130	M. A. White / M. A. White	DEC 14 2010 1130
M. A. White / M. A. White	DEC 14 2010 1300	Lyn Kuhnyake / Lyn Kuhnyake	DEC 14 2010 1300

SPECIAL INSTRUCTIONS

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** Physical Properties laboratory: Conduct the hydraulic conductivity test (ASTM 5084 or 2434) as appropriate to the sample matrix. BRM # 13564

ORIGINAL

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

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-225-063 REVISION 1	PAGE 1 OF 1
COLLECTOR Morton, Farris, Zenker	**COMPANY CONTACT** DALE DYEKMAN	**TELEPHONE NO.** (509) 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7783 (199-B2-15); I-007	**PROJECT DESIGNATION** 100 Area Remedial Investigation/Feasibility Analysis - 100-BC Soils		**SAF NO.** F10-225	**AIR QUALITY** ☐	**45 Days / 45 Days**
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N.585 15 (Pg 26)	**ACTUAL SAMPLE DEPTH** 176'-178'	**COA** 300078ES10	**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)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	1
VOLUME	1000mL
SAMPLE ANALYSIS	KD - Batch (No CAS);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B27ND1	SOIL	12/14/10	0835	

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM Calvin Farris / Calvin Farris	**DATE/TIME** 12-14-10 1005	**RECEIVED BY/STORED IN** MO-413 SSU-R1	**DATE/TIME** 12-14-10 1005
RELINQUISHED BY/REMOVED FROM MO-413 SSU-R1	**DATE/TIME** DEC 14 2010 1130	**RECEIVED BY/STORED IN** M. A. White M. A. White	**DATE/TIME** DEC 14 2010 1130
RELINQUISHED BY/REMOVED FROM M. A. White M. A. White	**DATE/TIME** DEC 14 2010 1300	**RECEIVED BY/STORED IN** Igor Kutnyak	**DATE/TIME** DEC 14 2010 1300
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** Physical Properties laboratory: Conduct the hydraulic conductivity test (ASTM 5084 or 2434) as appropriate to the sample matrix.

BRM # 13564

ORIGINAL

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

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-225-066 REVISION 1 PAGE 1 OF 1
COLLECTOR Calvin Farris, Thunder	**COMPANY CONTACT** DALE DYEKMAN	**TELEPHONE NO.** (509) 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **DATA TURNAROUND**
SAMPLING LOCATION C7783 (199-B2-15); I-008	**PROJECT DESIGNATION** 100 Area Remedial Investigation/Feasibility Analysis - 100-BC Soils		**SAF NO.** F10-225	**AIR QUALITY** ☐ 45 Days / 45 Days
ICE CHEST NO. N/A	**FIELD LOGBOOK NO.** HNF-N-585 15 (p 26)	**ACTUAL SAMPLE DEPTH** 180.8 - 183.3	**COA** 300078ES10	**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)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	1
VOLUME	1000mL
SAMPLE ANALYSIS	KD - Batch (No CAS);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B27ND5	SOIL	12/14/10	1325	

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Calvin Farris / Calvin Farris	12-14-10 1430	MO-413 SSU-R1	12-14-10-1430
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
MO-413 SSU-R1 DEC 17 2010	0700	T.A. Wallace CHPRC DEC 17 2010	0700
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
T.A. Wallace CHPRC DEC 17 2010	13:00	Egor Kudryavtsev DEC 17 2010	13:00
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

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. ☐☐** Physical Properties laboratory: Conduct the hydraulic conductivity test (ASTM 5084 or 2434) as appropriate to the sample matrix.

BRM # 13564

☐ ORIGINAL

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

SDG# ESL 090019

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-225-069 REVISION 1	PAGE 1 OF 1
COLLECTOR Farris, Anderson, Zwiker	**COMPANY CONTACT** DALE DYEKMAN	**TELEPHONE NO.** (509) 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7783 (199-B2-15); I-009	**PROJECT DESIGNATION** 100 Area Remedial Investigation/Feasibility Analysis - 100-BC Soils		**SAF NO.** F10-225	**AIR QUALITY** ☐	
ICE CHEST NO. N/A	**FIELD LOGBOOK NO.** HNF-N-585-15 #89	**ACTUAL SAMPLE DEPTH** 185.8' - 188.3'	**COA** 300078ES10	**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)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	1
VOLUME	1000mL
SAMPLE ANALYSIS	KD - Batch {No CAS};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B27ND9	SOIL	12-15-10	1015	—

CHAIN OF POSSESSION	SIGN/ PRINT NAMES		
RELINQUISHED BY/REMOVED FROM: Calvin Farris / Calvin Farris — DATE/TIME: 12-15-10 1500	RECEIVED BY/STORED IN: MO-417 SSU-R1 — DATE/TIME: 12-15-10 1500		
RELINQUISHED BY/REMOVED FROM: MO-413 SSU-R1 — DATE/TIME: DEC 17 2010 0700	RECEIVED BY/STORED IN: T.A. Wallace CHPRC — DATE/TIME: DEC 17 2010 0700		
RELINQUISHED BY/REMOVED FROM: T.A. Wallace CHPRC — DATE/TIME: DEC 17 2010 1300	RECEIVED BY/STORED IN: Kyungah Lee — DATE/TIME: DEC 17 2010 1300		
RELINQUISHED BY/REMOVED FROM: — DATE/TIME:	RECEIVED BY/STORED IN: — DATE/TIME:		
RELINQUISHED BY/REMOVED FROM: — DATE/TIME:	RECEIVED BY/STORED IN: — DATE/TIME:		
RELINQUISHED BY/REMOVED FROM: — DATE/TIME:	RECEIVED BY/STORED IN: — DATE/TIME:		

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** Physical Properties laboratory: Conduct the hydraulic conductivity test (ASTM 5084 or 2434) as appropriate to the sample matrix.

BRM # 13564

ORIGINAL

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

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F10-225-072 REVISION 1	PAGE 1 OF 1
COLLECTOR Farris, Anderson, Zonker	**COMPANY CONTACT** DALE DYEKMAN	**TELEPHONE NO.** (509) 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **AIR QUALITY** ☐
SAMPLING LOCATION C7783 (199-B2-15); I-010	**PROJECT DESIGNATION** 100 Area Remedial Investigation/Feasibility Analysis - 100-BC Soils		**SAF NO.** F10-225	**DATA TURNAROUND** 45 Days / 45 Days
ICE CHEST NO. N/A	**FIELD LOGBOOK NO.** HNF-N-585-15 #29	**ACTUAL SAMPLE DEPTH** 191.3' - 193.8'	**COA** 300078ES10	**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)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	1
VOLUME	1000mL
SAMPLE ANALYSIS	KD - Batch (No CAS);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B27NF3	SOIL	12-15-10	1400	-

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
Calvin Farris / Calvin Farris	12-15-10 1500	MO-413 SSU-R1	12-15-10 1500
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
MO-413 SSU-R1 DEC 17 2010	0700	T.A. Wallace CHPRC DEC 17 2010	0700
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
T.A. Wallace CHPRC DEC 17 2010	1300	Igor Kudryakov DEC 17 2010	1300
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** Physical Properties laboratory: Conduct the hydraulic conductivity test (ASTM 5084 or 2434) as appropriate to the sample matrix.

B.R.M # 13564

ORIGINAL

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

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-22S-037 REVISION 1 PAGE 1 OF 1
COLLECTOR Aguilar, Southerland	COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N AIR QUALITY ☐ DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7785 (199-B3-51); Bottom of unconfined aquifer	PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-BC Soils		SAF NO. F10-225	
ICE CHEST NO. N/A	FIELD LOGBOOK NO. HNF-N-585-10 PG#72	ACTUAL SAMPLE DEPTH 144.6-147.1 Ft	COA 300078ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A	

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS		
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	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	
B274V7	SOIL	2-10-11	1020	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM Southerland/[signature]	DATE/TIME 2-10-11 / 1430	RECEIVED BY/STORED IN M0413 SSURI	DATE/TIME 2-10-11 / 1430
RELINQUISHED BY/REMOVED FROM SSURI	DATE/TIME 2-17-11 0700	RECEIVED BY/STORED IN cm Aguilar cm Agl	DATE/TIME 2-17-11 0700
RELINQUISHED BY/REMOVED FROM cm Aguilar cm Agl	DATE/TIME 2-17-11 1330	RECEIVED BY/STORED IN [signature]	DATE/TIME 2/17/11 1330
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

BRM# 13564

ORIGINAL

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

SDG# ESL090019

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-225-034 REVISION 1 PAGE 1 OF 1
COLLECTOR Turner Sutherland	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **AIR QUALITY** ☐ **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7785 (199-B3-51); 5 feet into RUM	**PROJECT DESIGNATION** 100 Area Remedial Investigation/Feasibility Analysis - 100-BC Soils		**SAF NO.** F10-225	
ICE CHEST NO. N/A	**FIELD LOGBOOK NO.** HNF-N-585-10 PG# 74	**ACTUAL SAMPLE DEPTH** 154.4-156.9 Ft	**COA** 300078ES10	**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)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	1
VOLUME	1000mL
SAMPLE ANALYSIS	KD - Batch {No CAS};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	[redacted]
B274V8	SOIL	2-15-11	1010	X

CHAIN OF POSSESSION	SIGN/ PRINT NAMES
RELINQUISHED BY/REMOVED FROM: Southerland DATE/TIME: 2-15-11/1300	RECEIVED BY/STORED IN: M0413 SSUR1 DATE/TIME: 2-15-11/1300
RELINQUISHED BY/REMOVED FROM: SSU-R1 DATE/TIME: 2-17-11 0700	RECEIVED BY/STORED IN: CM Aguilar CM Aguilar DATE/TIME: 2-17-11 0700
RELINQUISHED BY/REMOVED FROM: CM Aguilar CM Aguilar DATE/TIME: 2-17-11 1330	RECEIVED BY/STORED IN: L Bustamante DATE/TIME: 2-17-11 1330
RELINQUISHED BY/REMOVED FROM: DATE/TIME:	RECEIVED BY/STORED IN: DATE/TIME:
RELINQUISHED BY/REMOVED FROM: DATE/TIME:	RECEIVED BY/STORED IN: DATE/TIME:
RELINQUISHED BY/REMOVED FROM: DATE/TIME:	RECEIVED BY/STORED IN: DATE/TIME:
RELINQUISHED BY/REMOVED FROM: DATE/TIME:	RECEIVED BY/STORED IN: DATE/TIME:

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

BRM# 13564

☐ ORIGINAL

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

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-225-019 REVISION 1 PAGE 1 OF 1
COLLECTOR BAILEY	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** RADLOFF, AW	**PRICE CODE** 8N **DATA TURNAROUND**
SAMPLING LOCATION C8244 (199-B5-8); 5 feet into RUM	**PROJECT DESIGNATION** 100 Area Remedial Investigation/Feasibility Analysis - 100-BC Soils		**SAF NO.** F10-225	**AIR QUALITY** ☐ **45 Days / 45 Days**
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-585 15/64	**ACTUAL SAMPLE DEPTH** 228.1'-230.6'	**COA** 300078ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.**	

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)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	1
VOLUME	1000mL
SAMPLE ANALYSIS	KD - Batch (No CAS);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B26RF9	SOIL	3-2-11	1245	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
JK BAILEY / JKB	3-2-11/1520	M04113 SSU R1 A 3-3-11	3-2-11/1600
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
M04135SU R1 3-3-11	1020	A. Turner A 3-3-11	1020
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
A. Turner A 3-3-11	1330	I. Kufnyakov 3-3-11	1330
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

BRM# 13564

☐ ORIGINAL

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

91 of 92

SDG# ESL 090019

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-225-021 REVISION 1 PAGE 1 OF 1
COLLECTOR: BAILEY	COMPANY CONTACT: DYEKMAN, DL	TELEPHONE NO.: 373-2530	PROJECT COORDINATOR: RADLOFF, AW	PRICE CODE: 8N; DATA TURNAROUND: 45 Days / 45 Days
SAMPLING LOCATION: C8244 (199-B5-8); Bottom of unconfined aquifer	PROJECT DESIGNATION: 100 Area Remedial Investigation/Feasibility Analysis - 100-BC Soils		SAF NO.: F10-225	AIR QUALITY: ☐
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-585-15/64	ACTUAL SAMPLE DEPTH: 221.5'-224.0'	COA: 300078ES10	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
SAMPLE ANALYSIS	KD - Batch {No CAS};

SPECIAL HANDLING AND/OR STORAGE

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B26RF8	SOIL	3-2-11	0945	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: JKBAILEY / JKB	DATE/TIME: 3-2-11 / 1500	RECEIVED BY/STORED IN: M0413 SSU R1 AT 3-3-11	DATE/TIME: 3-2-11 / 1500
RELINQUISHED BY/REMOVED FROM: M0413SSG R1 3-3-11	DATE/TIME: 1020	RECEIVED BY/STORED IN: A. Turner AT 3-3-11	DATE/TIME: 1020
RELINQUISHED BY/REMOVED FROM: A. Turner AT 3-3-11	DATE/TIME: 1330	RECEIVED BY/STORED IN: I. Kutnyakov 3-3-11	DATE/TIME: 1330
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

BRM #13564

ORIGINAL

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