CHPRC - REVIEW COMMENT RECORD (RCR)

1. Date	2. Review No.
11/14/11	VSR12-004
3. Project No. 100K Area AA	Page 1 of 1

5. Document Number(s)/Title(s)	6. Program/Project/Building Number	7. Reviewer	8. Organization/Group	9. Location/Phone
VSR12-004, Data Validation Report for CH2M Hill Plateau Remediation Company, Area AA Stockpile #5	SGRP	SL Huggins	SGRP QA	MO-2216/A101 373-3630

17. Comment Submittal Approval	10. Agreement With Indicated Comment Disposition(s)	11. CLOSED
11/15/11 Date; SL Huggins Organization Manager (optional) (print and sign)	Date; Reviewer/Point of Contact (print and sign); Author/Originator (print and sign)	11/15/11 Date; Reviewer/Point of Contact (print and sign); SL Huggins Author/Originator (print and sign)

12. Item	13a. Comments	13b. Basis	13c. Recommendation	14. Reviewer Concurrence Required (Y or N)	15. Disposition (provide justification if **NOT** accepted)	16. Status
1	No comments identified.					

CHPRC - REVIEW COMMENT RECORD (RCR)

1. Date	2. Review No.
11/14/2011	
3. Project No.	Page 1 of 1

5. Document Number(s)/Title(s)	6. Program/Project/Building Number	7. Reviewer	8. Organization/Group	9. Location/Phone
VSR12-004		Scot Fitzgerald	Analytical Support Group	2753/373-7495

17. Comment Submittal Approval	10. Agreement With Indicated Comment Disposition(s)	11. CLOSED
Date / Organization Manager (optional) (print and sign)	Scot Fitzgerald Reviewer/Point of Contact (print and sign) 11/14/2011 Date Author/Originator (print and sign)	Scot Fitzgerald Reviewer/Point of Contact (print and sign) 12/5/2011 Date Author/Originator (print and sign)

12. Item	13a. Comments	13b. Basis	13c. Recommendation	14. Reviewer Concurrence Required (Y or N)	15. Disposition (provide justification if NOT accepted)	16. Status
1	Page 154 of 210 last paragraph states all Hexavalent chromium samples were non-detect. Sample B2FNY3 is a detect above the MDL but below the RL.		Correct statement, and update qualification summary and annotated data with correct flag.	Y	Information corrected	Closed

REVIEW COMMENT RECORD (RCR)

1. Date	2. Review No.
11/28/2011	
3. Project No.	Page 1 of 1

5. Document Number(s)/Title(s)	6. Program/Project/Building Number	7. Reviewer	8. Organization/Group	9. Location/Phone
Data Validation Report for CH2M Hill Plateau Remediation Company: VSR12-00~~1~~4, Project 100K Area AA, Stockpile #5	100K Area AA, Stockpile #5	D. L. Klages	100-K Soil Remediation	(509)942-3947

17. Comment Submittal Approval	10. Agreement With Indicated Comment Disposition(s)	11. CLOSED
DHK 12/5/11	Deanna L. Klages Reviewer/Point of Contact (print and sign)	Deanna L. Klages Reviewer/Point of Contact (print and sign)
Date / Organization Manager (optional) (print and sign)	11/28/2011 Date Deanna L. Klages Author/Originator (print and sign)	11/28/2011 Date Deanna L. Klages Author/Originator (print and sign)

12. Item	13a. Comments	13b. Basis	13c. Recommendation	14. Reviewer Concurrence Required (Y or N)	15. Disposition (provide justification if **NOT** accepted)	16. Status
1	No Issues noted.					

ANALYTICAL QUALITY ASSOCIATES, INC.
616 Maxine NE
Albuquerque, NM 87123
505-299-5201
www.aqainc.net

Data Validation Report for CH2M Hill Plateau Remediation Company

Area AA Stockpile #5
VSR12-004
100K Area AA
Chemical Validation - Level C

Validation Performed By: Eyda Hergenreder **Date:** **11-10-2011**

TABLE OF CONTENTS

Inorganics

Memorandum 3
Appendix 1 – Glossary of Data Reporting Qualifiers 7
Appendix 2 – Summary of Data Qualification 9
Appendix 3 – Annotated Laboratory Reports 11
Appendix 4 – Laboratory Narrative and Chain-of-Custody Documentation 67
Appendix 5 – Data Validation Supporting Documentation 135
Appendix 6 – Additional Documentation Requested By Client 143

General Chemistry

Memorandum 153
Appendix 1 – Glossary of Data Reporting Qualifiers 157
Appendix 2 – Summary of Data Qualification 159
Appendix 3 – Annotated Laboratory Reports 161
Appendix 4 – Laboratory Narrative and Chain-of-Custody Documentation 178
Appendix 5 – Data Validation Supporting Documentation 197
Appendix 6 – Additional Documentation Requested By Client 204

Date: 10 November 2011
To: CH2M Hill (technical representative)
From: Analytical Quality Associates, Inc.
Project: 100K Area AA
Subject: Inorganics - Sample Data Groups (SDGs) WSCF112903 and SL1159

INTRODUCTION

This memorandum presents the results of data validation for SDG WSCF112903 prepared by WSCF Analytical Laboratories and SDG SL1159 prepared by TestAmerica Laboratories. A list of samples validated along with the analytical methods is provided in the following table.

Sample ID	Sample Date	Media	Validation Level	Analytical Methods
B2FNY0	08/09/11	Soil	C	200.8
B2FNY1	08/09/11	Soil	C	200.8
B2FNY2	08/09/11	Soil	C	200.8
B2FNY3	08/09/11	Soil	C	200.8
B2FNY4	08/09/11	Soil	C	200.8
B2FNY5	08/09/11	Soil	C	200.8
B2FNY6	08/09/11	Soil	C	200.8
B2FNX1	08/09/11	Soil	C	200.8
B2FNX2	08/09/11	Soil	C	200.8
B2FNX3	08/09/11	Soil	C	200.8
B2FNX4	08/09/11	Soil	C	200.8
B2FNX5	08/09/11	Soil	C	200.8
B2FNX6	08/09/11	Soil	C	200.8
B2FNX7	08/09/11	Soil	C	200.8
B2FNX8	08/09/11	Soil	C	200.8
B2FNX9	08/09/11	Soil	C	200.8
B2FK07	07/18/11	Soil	C	200.8
B2FJX8	07/18/11	Soil	C	200.8
B2FJX9	07/18/11	Soil	C	200.8
B2FJX7	07/18/11	Soil	C	200.8
B2FJY2	07/18/11	Soil	C	200.8
B2FJY1	07/18/11	Soil	C	200.8
B2FJY0	07/18/11	Soil	C	200.8

Data validation was conducted in accordance with the CHPRC validation statement of work and the 100 Area Remedial Action Sampling and Analysis Plan, DOE/RL-96-22, Rev. 5, Volume 1 (SAP). Appendices 1 through 6 provide the following information as indicated below:

Appendix 1. Glossary of Data Reporting Qualifiers
Appendix 2. Summary of Data Qualification
Appendix 3. Annotated Laboratory Reports
Appendix 4. Laboratory Narrative and Chain-of-Custody Documentation
Appendix 5. Data Validation Supporting Documentation

Appendix 6. Additional Documentation Requested By Client

DATA QUALITY OBJECTIVES

- **Holding Times and Sample Preservation**

Holding times are calculated from Chain-of-Custody forms to determine the validity of the results. The holding time requirement for ICP metals are analysis within 180 days of sample collection, and the holding time requirement for mercury is analysis within 28 days of sample collection. There were no specific preservation required for the inorganic soil sample analysis.

The samples were analyzed within the prescribed holding times.

- **Blanks**

The blank data results are reviewed to assess the extent of contamination introduced through sampling, sample preparation, and analysis.

Laboratory Blanks

All laboratory blank results were acceptable with the following exceptions.

For SDG WSCF112903, the Be and Se laboratory blank results were > the method detection limits (MDLs) but < the reporting limits (RLs). All associated Se sample results were detects < the RL and should be qualified as non-detects at the RL (3.0 mg/kg) and flagged "U." All associated Be sample results except for samples B2FNY6 and B2FNX5 were detects < the RL should be qualified as non-detects at the RL (0.50 mg/kg) and flagged "U." The Be results for samples B2FNY6 and B2FNX5 were either detects >5X the blank value and > the RL or non-detects and should not be qualified. See the table in Appendix 2 for a listing of all affected samples.

Trip Blanks

No trip blanks were submitted for validation.

Field Blanks

No field blanks were submitted for validation.

Equipment Blanks

All equipment blank results were acceptable with the following exceptions. Mn, Be, B, Cr, Cu, V, Pb, Mo, Sr, U, As and Se were detected in equipment blank B2FNY0. The Be and Se results have been flagged "U" due to laboratory blank contamination. Mn, Ba, B, Pb, Sr and Se were detected in equipment blank B2FNY6. The Se result has been flagged "U" due to laboratory blank contamination.

- **Accuracy**

Accuracy is evaluated by reviewing matrix spike sample results, laboratory control sample results, and ICP-AES interference check sample results. According to the SAP, the matrix spike sample accuracy limits are 70% to 130% and the laboratory control sample accuracy limits are ones specified by the DV procedure. The limits for reported analytes not listed in the SAP are specified by the DV procedure. The interference check sample limits are ones specified by the DV procedure.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Samples

All MS/MSD recoveries were acceptable.

Laboratory Control Samples (LCSs)

All LCS recoveries were acceptable.

ICP-AES Interference Check Samples (ICSs)

ICS data was not included in the data package. Sample results should not be qualified based on this.

- **Precision**

Precision is evaluated by reviewing MS/MSD results, field duplicate sample results, field split sample results, and ICP serial dilution results. These QC results provide information on the laboratory reproducibility and whether sampling activities are adequate to acquire consistent sample results. According to the SAP, the relative percent difference (RPD) limits are ±30%. The limits for reported analytes not listed in the SAP are specified by the DV procedure. When duplicate RPDs exceed the limits and have associated results <5X the SAP required detection limits with differences <2X the required detection limits no precision infraction occurred. The serial dilution limits are ones specified by the DV procedure.

MS/MSD Samples

All MS/MSD RPD values were acceptable.

Field Duplicate Samples

All field duplicate results were acceptable.

Field Split Samples

No field splits were submitted for validation.

ICP Serial Dilution Samples

ICS serial dilution data was not included in the data package. Sample results should not be qualified based on this.

- **ICP-MS Internal Standards**

The analysis of ICP-MS internal standards is used to determine the existences and magnitude of instrument drift and physical interferences. The criteria for evaluation of internal standard results apply to all samples (including QC) analyzed during the analytical run, beginning with the calibration.

ICP-MS internal standards data was not included in the data package. Sample results should not be qualified based on this.

- **Detection Limits**

Reported MDLs are compared against the contractually required detection limits (CRDLs) to ensure that laboratory detection limits meet the required criteria.

All reported sample MDLs with associated non-detected sample results were below the CRDLs.

- **Completeness**

SDGs WSCF112903 and SL1159 were submitted for validation and verified for completeness. Completeness is based on the percentage of data determined to be valid (i.e., not rejected). The completion percentage was 100%.

MAJOR DEFICIENCIES

None found.

MINOR DEFICIENCIES

A minor deficiency leading to qualification of Be and Se sample results as non-detects were due to laboratory blank infraction. See the table in Appendix 2 for a listing of all affected sample results.

REFERENCES

GRP-GD-003, Rev. 0, Change 0, *Data Validation for Chemical Analyses*, August 2010.

DOE/RL-96-22, Rev. 5, *100 Area Remedial Action Sampling and Analysis Plan*, September 2009.

Appendix 1

Glossary of Data Reporting Qualifiers

Qualifiers that may be applied by data validators in compliance with the CHPRC statement of work are as follows:

- **U** — The constituent was analyzed for, but was not detected. The data should be considered usable for decision-making purposes.

- **UJ** — The constituent was analyzed for and was not detected. Due to a quality control deficiency identified during data validation the value reported may not accurately reflect the RL. The data should be considered usable for decision-making purposes.

- **J** — Indicates the constituent was analyzed for and detected. The associated value is estimated due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **J+** — Indicates the constituent was analyzed for and detected. The associated value is estimated with a suspected positive bias due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **J-** — Indicates the constituent was analyzed for and detected. The associated value is estimated with a suspected negative bias due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **N** — The analysis indicates the presence of an analyte that has been tentatively identified.

- **NJ** — The analysis indicates the presence of an analyte that has been tentatively identified and the associated numerical value represents its approximate concentration.

- **NJ+** — The analysis indicates the presence of an analyte that has been tentatively identified. The associated value is estimated with a suspected positive bias due to a quality control deficiency identified during data validation.

- **NJ-** — The analysis indicates the presence of an analyte that has been tentatively identified. The associated value is estimated with a suspected negative bias due to a quality control deficiency identified during data validation.

- **UR** — Indicates the constituent was analyzed for and not detected; however, due to an identified quality control deficiency the data should be considered unusable for decision-making purposes.

- **R** — Indicates the constituent was analyzed for and detected; however, due to an identified quality control deficiency the data should be considered unusable for decision-making purposes.

Appendix 2

Summary of Data Qualification

Inorganic Data Qualification Summary			
SDG: WSCF112903, SL1159	Reviewer: AQA	Project: 100K Area AA	Page 1 of 1
Analyte(s)	**Qualifier**	**Samples Affected**	**Reason**
Be	0.50U	B2FNY0, B2FNY1, B2FNY2, B2FNY3, B2FNY4, B2FNY5, B2FNX1, B2FNX2, B2FNX3, B2FNX4, B2FNX6, B2FNX7, B2FNX8, B2FNX9,	Laboratory blank contamination
Se (SDG WSCF112903 only)	3.0U	B2FNY0, B2FNY1, B2FNY2, B2FNY3, B2FNY4, B2FNY5, B2FNY6, B2FNX1, B2FNX2, B2FNX3, B2FNX4, B2FNX5, B2FNX6, B2FNX7, B2FNX8, B2FNX9,	Laboratory blank contamination

Comments: None

Appendix 3

Annotated Laboratory Reports

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903001
SAF# F11-096
Sample ID B2FNY0

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	U		<3.1		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<0.99		mg/kg	1	0.99	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	U		<0.94		mg/kg	1	0.94	4.9	08/10/11
Sulfate	14808-79-8	LA-533-410	U		<3.6		mg/kg	1	3.6	52	08/10/11
Cr(VI) Prep											**08/10/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN		<0.10		ug/g	1	0.10	0.50	08/11/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	B		0.273		mg/kg	1	0.098	0.98	08/12/11
Nickel	7440-02-0	LA-505-412	U		<0.20		mg/kg	1	0.20	2.0	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.098		mg/kg	1	0.098	0.98	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.29		mg/kg	1	0.29	2.9	08/12/11
Barium	7440-39-3	LA-505-412	U		<0.20		mg/kg	1	0.20	2.0	08/12/11
Beryllium	7440-41-7	LA-505-412	BC	0.50U	0.101		mg/kg	1	0.098	0.49	08/12/11
Boron	7440-42-8	LA-505-412	B		1.47		mg/kg	1	0.49	4.9	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903001
SAF# F11-096
Sample ID B2FNY0

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cadmium	7440-43-9	LA-505-412	U		<0.098		mg/kg	1	0.098	0.98	08/12/11
Chromium	7440-47-3	LA-505-412	B		3.87		mg/kg	1	0.49	4.9	08/12/11
Cobalt	7440-48-4	LA-505-412	U		<0.098		mg/kg	1	0.098	0.49	08/12/11
Copper	7440-50-8	LA-505-412			1.36		mg/kg	1	0.098	0.98	08/12/11
Vanadium	7440-62-2	LA-505-412	B		0.940		mg/kg	1	0.20	2.0	08/12/11
Zinc	7440-66-6	LA-505-412	U		<0.78		mg/kg	1	0.78	4.9	08/12/11
Lead	7439-92-1	LA-505-412	B		0.141		mg/kg	1	0.098	0.98	08/12/11
Mercury	7439-97-6	LA-505-412	U		<0.049		mg/kg	1	0.049	0.20	08/12/11
Molybdenum	7439-98-7	LA-505-412	B		0.190		mg/kg	1	0.098	0.98	08/12/11
Strontium	7440-24-6	LA-505-412	B		0.304		mg/kg	1	0.098	0.98	08/12/11
Tin	7440-31-5	LA-505-412	U		<0.098		mg/kg	1	0.098	0.49	08/12/11
Uranium	7440-61-1	LA-505-412	B		0.249		mg/kg	1	0.098	0.49	08/12/11
Arsenic	7440-38-2	LA-505-412	B		0.638		mg/kg	1	0.39	3.9	08/12/11
Selenium	7782-49-2	LA-505-412	BC	3.0U	0.600		mg/kg	1	0.29	2.9	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903002
SAF# F11-096
Sample ID B2FNY1

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	B		3.81		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	B		1.21		mg/kg	1	0.96	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410	B		13.6		mg/kg	1	3.6	53	08/10/11
Cr(VI) Prep											**08/10/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN		<0.10		ug/g	1	0.10	0.50	08/11/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			394		mg/kg	1	0.091	0.91	08/12/11
Nickel	7440-02-0	LA-505-412			8.10		mg/kg	1	0.18	1.8	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.091		mg/kg	1	0.091	0.91	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.27		mg/kg	1	0.27	2.7	08/12/11
Barium	7440-39-3	LA-505-412			58.7		mg/kg	1	0.18	1.8	08/12/11
Beryllium	7440-41-7	LA-505-412	BC	0.50U	0.323		mg/kg	1	0.091	0.45	08/12/11
Boron	7440-42-8	LA-505-412	B		1.73		mg/kg	1	0.45	4.5	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903002
SAF# F11-096
Sample ID B2FNY1

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cadmium	7440-43-9	LA-505-412	U		<0.091		mg/kg	1	0.091	0.91	08/12/11
Chromium	7440-47-3	LA-505-412			5.42		mg/kg	1	0.45	4.5	08/12/11
Cobalt	7440-48-4	LA-505-412			12.3		mg/kg	1	0.091	0.45	08/12/11
Copper	7440-50-8	LA-505-412			18.0		mg/kg	1	0.091	0.91	08/12/11
Vanadium	7440-62-2	LA-505-412			89.8		mg/kg	1	0.18	1.8	08/12/11
Zinc	7440-66-6	LA-505-412			56.4		mg/kg	1	0.73	4.5	08/12/11
Lead	7439-92-1	LA-505-412			2.98		mg/kg	1	0.091	0.91	08/12/11
Mercury	7439-97-6	LA-505-412			0.191		mg/kg	1	0.045	0.18	08/12/11
Molybdenum	7439-98-7	LA-505-412	B		0.770		mg/kg	1	0.091	0.91	08/12/11
Strontium	7440-24-6	LA-505-412			27.2		mg/kg	1	0.091	0.91	08/12/11
Tin	7440-31-5	LA-505-412			0.574		mg/kg	1	0.091	0.45	08/12/11
Uranium	7440-61-1	LA-505-412			0.481		mg/kg	1	0.091	0.45	08/12/11
Arsenic	7440-38-2	LA-505-412	B		1.71		mg/kg	1	0.36	3.6	08/12/11
Selenium	7782-49-2	LA-505-412	BC	3.0U	0.926		mg/kg	1	0.27	2.7	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903003
SAF# F11-096
Sample ID B2FNY2

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	B		8.16		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	B		2.92		mg/kg	1	0.95	4.9	08/10/11
Sulfate	14808-79-8	LA-533-410	B		24.2		mg/kg	1	3.6	52	08/10/11
Cr(VI) Prep											**08/10/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN		<0.10		ug/g	1	0.10	0.50	08/11/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			337		mg/kg	1	0.095	0.95	08/12/11
Nickel	7440-02-0	LA-505-412			7.94		mg/kg	1	0.19	1.9	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.095		mg/kg	1	0.095	0.95	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.28		mg/kg	1	0.28	2.8	08/12/11
Barium	7440-39-3	LA-505-412			51.9		mg/kg	1	0.19	1.9	08/12/11
Beryllium	7440-41-7	LA-505-412	BC	0.50U	0.243		mg/kg	1	0.095	0.47	08/12/11
Boron	7440-42-8	LA-505-412	B		1.25		mg/kg	1	0.47	4.7	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903003
SAF# F11-096
Sample ID B2FNY2

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cadmium	7440-43-9	LA-505-412	U		<0.095		mg/kg	1	0.095	0.95	08/12/11
Chromium	7440-47-3	LA-505-412			5.56		mg/kg	1	0.47	4.7	08/12/11
Cobalt	7440-48-4	LA-505-412			10.8		mg/kg	1	0.095	0.47	08/12/11
Copper	7440-50-8	LA-505-412			16.1		mg/kg	1	0.095	0.95	08/12/11
Vanadium	7440-62-2	LA-505-412			80.1		mg/kg	1	0.19	1.9	08/12/11
Zinc	7440-66-6	LA-505-412			47.9		mg/kg	1	0.76	4.7	08/12/11
Lead	7439-92-1	LA-505-412			2.89		mg/kg	1	0.095	0.95	08/12/11
Mercury	7439-97-6	LA-505-412	B		0.151		mg/kg	1	0.047	0.19	08/12/11
Molybdenum	7439-98-7	LA-505-412	B		0.558		mg/kg	1	0.095	0.95	08/12/11
Strontium	7440-24-6	LA-505-412			24.6		mg/kg	1	0.095	0.95	08/12/11
Tin	7440-31-5	LA-505-412			0.544		mg/kg	1	0.095	0.47	08/12/11
Uranium	7440-61-1	LA-505-412	B		0.433		mg/kg	1	0.095	0.47	08/12/11
Arsenic	7440-38-2	LA-505-412	B		1.50		mg/kg	1	0.38	3.8	08/12/11
Selenium	7782-49-2	LA-505-412	BC	3.0U	1.09		mg/kg	1	0.28	2.8	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903004
SAF# F11-096
Sample ID B2FNY3

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	B		6.33		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	B		1.65		mg/kg	1	0.95	4.9	08/10/11
Sulfate	14808-79-8	LA-533-410	B		15.7		mg/kg	1	3.6	52	08/10/11
Cr(VI) Prep											**08/10/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	BN		0.174		ug/g	1	0.10	0.50	08/11/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			463		mg/kg	1	0.099	0.99	08/12/11
Nickel	7440-02-0	LA-505-412			8.93		mg/kg	1	0.20	2.0	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.099		mg/kg	1	0.099	0.99	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.30		mg/kg	1	0.30	3.0	08/12/11
Barium	7440-39-3	LA-505-412			71.0		mg/kg	1	0.20	2.0	08/12/11
Beryllium	7440-41-7	LA-505-412	BC	0.50U	0.352		mg/kg	1	0.099	0.49	08/12/11
Boron	7440-42-8	LA-505-412	B		1.45		mg/kg	1	0.49	4.9	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903004
SAF# F11-096
Sample ID B2FNY3

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cadmium	7440-43-9	LA-505-412	U		<0.099		mg/kg	1	0.099	0.99	08/12/11
Chromium	7440-47-3	LA-505-412			6.30		mg/kg	1	0.49	4.9	08/12/11
Cobalt	7440-48-4	LA-505-412			11.7		mg/kg	1	0.099	0.49	08/12/11
Copper	7440-50-8	LA-505-412			16.3		mg/kg	1	0.099	0.99	08/12/11
Vanadium	7440-62-2	LA-505-412			72.8		mg/kg	1	0.20	2.0	08/12/11
Zinc	7440-66-6	LA-505-412			53.4		mg/kg	1	0.79	4.9	08/12/11
Lead	7439-92-1	LA-505-412			3.99		mg/kg	1	0.099	0.99	08/12/11
Mercury	7439-97-6	LA-505-412			0.211		mg/kg	1	0.049	0.20	08/12/11
Molybdenum	7439-98-7	LA-505-412	B		0.518		mg/kg	1	0.099	0.99	08/12/11
Strontium	7440-24-6	LA-505-412			26.6		mg/kg	1	0.099	0.99	08/12/11
Tin	7440-31-5	LA-505-412			0.538		mg/kg	1	0.099	0.49	08/12/11
Uranium	7440-61-1	LA-505-412	B		0.411		mg/kg	1	0.099	0.49	08/12/11
Arsenic	7440-38-2	LA-505-412	B		1.75		mg/kg	1	0.40	4.0	08/12/11
Selenium	7782-49-2	LA-505-412	BC	3.0U	0.961		mg/kg	1	0.30	3.0	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903005
SAF# F11-096
Sample ID B2FNY4

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**08/10/11**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	B	4.46		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	U	<0.95		mg/kg	1	0.95	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410	B	7.60		mg/kg	1	3.6	53	08/10/11
Cr(VI) Prep										**08/10/11**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	UN	<0.10		ug/g	1	0.10	0.50	08/11/11
ICPMS Prep										**08/11/11**
ICP-MS										
Manganese	7439-96-5	LA-505-412		371		mg/kg	1	0.10	1.0	08/12/11
Nickel	7440-02-0	LA-505-412		8.17		mg/kg	1	0.20	2.0	08/12/11
Silver	7440-22-4	LA-505-412	U	<0.10		mg/kg	1	0.10	1.0	08/12/11
Antimony	7440-36-0	LA-505-412	U	<0.30		mg/kg	1	0.30	3.0	08/12/11
Barium	7440-39-3	LA-505-412		58.3		mg/kg	1	0.20	2.0	08/12/11
Beryllium	7440-41-7	LA-505-412	BC	0.50U	0.327	mg/kg	1	0.10	0.50	08/12/11
Boron	7440-42-8	LA-505-412	B		1.93	mg/kg	1	0.50	5.0	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903005
SAF# F11-096
Sample ID B2FNY4

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cadmium	7440-43-9	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	08/12/11
Chromium	7440-47-3	LA-505-412			6.20		mg/kg	1	0.50	5.0	08/12/11
Cobalt	7440-48-4	LA-505-412			12.1		mg/kg	1	0.10	0.50	08/12/11
Copper	7440-50-8	LA-505-412			17.8		mg/kg	1	0.10	1.0	08/12/11
Vanadium	7440-62-2	LA-505-412			94.9		mg/kg	1	0.20	2.0	08/12/11
Zinc	7440-66-6	LA-505-412			55.9		mg/kg	1	0.80	5.0	08/12/11
Lead	7439-92-1	LA-505-412			3.35		mg/kg	1	0.10	1.0	08/12/11
Mercury	7439-97-6	LA-505-412	B		0.0587		mg/kg	1	0.050	0.20	08/12/11
Molybdenum	7439-98-7	LA-505-412	B		0.518		mg/kg	1	0.10	1.0	08/12/11
Strontium	7440-24-6	LA-505-412			25.8		mg/kg	1	0.10	1.0	08/12/11
Tin	7440-31-5	LA-505-412			0.546		mg/kg	1	0.10	0.50	08/12/11
Uranium	7440-61-1	LA-505-412	B		0.498		mg/kg	1	0.10	0.50	08/12/11
Arsenic	7440-38-2	LA-505-412	B		1.57		mg/kg	1	0.40	4.0	08/12/11
Selenium	7782-49-2	LA-505-412	BC	3.0U	1.06		mg/kg	1	0.30	3.0	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903006
SAF# F11-096
Sample ID B2FNY5

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	B		5.33		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	B		1.42		mg/kg	1	0.95	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410	B		14.8		mg/kg	1	3.6	52	08/10/11
Cr(VI) Prep											**08/10/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN		<0.10		ug/g	1	0.10	0.50	08/11/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			378		mg/kg	1	0.093	0.93	08/12/11
Nickel	7440-02-0	LA-505-412			8.79		mg/kg	1	0.19	1.9	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.093		mg/kg	1	0.093	0.93	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.28		mg/kg	1	0.28	2.8	08/12/11
Barium	7440-39-3	LA-505-412			62.1		mg/kg	1	0.19	1.9	08/12/11
Beryllium	7440-41-7	LA-505-412	BC	0.50U	0.370		mg/kg	1	0.093	0.47	08/12/11
Boron	7440-42-8	LA-505-412	B		0.616		mg/kg	1	0.47	4.7	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903006
SAF# F11-096
Sample ID B2FNY5

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cadmium	7440-43-9	LA-505-412	U		<0.093		mg/kg	1	0.093	0.93	08/12/11
Chromium	7440-47-3	LA-505-412			5.68		mg/kg	1	0.47	4.7	08/12/11
Cobalt	7440-48-4	LA-505-412			12.3		mg/kg	1	0.093	0.47	08/12/11
Copper	7440-50-8	LA-505-412			18.9		mg/kg	1	0.093	0.93	08/12/11
Vanadium	7440-62-2	LA-505-412			88.6		mg/kg	1	0.19	1.9	08/12/11
Zinc	7440-66-6	LA-505-412			56.5		mg/kg	1	0.75	4.7	08/12/11
Lead	7439-92-1	LA-505-412			3.18		mg/kg	1	0.093	0.93	08/12/11
Mercury	7439-97-6	LA-505-412			0.241		mg/kg	1	0.047	0.19	08/12/11
Molybdenum	7439-98-7	LA-505-412	B		0.628		mg/kg	1	0.093	0.93	08/12/11
Strontium	7440-24-6	LA-505-412			28.0		mg/kg	1	0.093	0.93	08/12/11
Tin	7440-31-5	LA-505-412			0.689		mg/kg	1	0.093	0.47	08/12/11
Uranium	7440-61-1	LA-505-412			0.491		mg/kg	1	0.093	0.47	08/12/11
Arsenic	7440-38-2	LA-505-412	B		1.71		mg/kg	1	0.37	3.7	08/12/11
Selenium	7782-49-2	LA-505-412	BC	3.0U	1.46		mg/kg	1	0.28	2.8	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903007
SAF# F11-096
Sample ID B2FNY6

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**08/10/11**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	U	<3.1		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U	<0.99		mg/kg	1	0.99	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	U	<0.94		mg/kg	1	0.94	4.9	08/10/11
Sulfate	14808-79-8	LA-533-410	U	<3.6		mg/kg	1	3.6	52	08/10/11
Cr(VI) Prep										**08/10/11**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	UN	<0.10		ug/g	1	0.10	0.50	08/11/11
ICPMS Prep										**08/11/11**
ICP-MS										
Manganese	7439-96-5	LA-505-412	B	0.306		mg/kg	1	0.096	0.96	08/12/11
Nickel	7440-02-0	LA-505-412	U	<0.19		mg/kg	1	0.19	1.9	08/12/11
Silver	7440-22-4	LA-505-412	U	<0.096		mg/kg	1	0.096	0.96	08/12/11
Antimony	7440-36-0	LA-505-412	U	<0.29		mg/kg	1	0.29	2.9	08/12/11
Barium	7440-39-3	LA-505-412	B	0.236		mg/kg	1	0.19	1.9	08/12/11
Beryllium	7440-41-7	LA-505-412	U	<0.096		mg/kg	1	0.096	0.48	08/12/11
Boron	7440-42-8	LA-505-412	B	0.933		mg/kg	1	0.48	4.8	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903007
SAF# F11-096
Sample ID B2FNY6

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cadmium	7440-43-9	LA-505-412	U		<0.096		mg/kg	1	0.096	0.96	08/12/11
Chromium	7440-47-3	LA-505-412	U		<0.48		mg/kg	1	0.48	4.8	08/12/11
Cobalt	7440-48-4	LA-505-412	U		<0.096		mg/kg	1	0.096	0.48	08/12/11
Copper	7440-50-8	LA-505-412	U		<0.096		mg/kg	1	0.096	0.96	08/12/11
Vanadium	7440-62-2	LA-505-412	U		<0.19		mg/kg	1	0.19	1.9	08/12/11
Zinc	7440-66-6	LA-505-412	U		<0.77		mg/kg	1	0.77	4.8	08/12/11
Lead	7439-92-1	LA-505-412	B		0.0970		mg/kg	1	0.096	0.96	08/12/11
Mercury	7439-97-6	LA-505-412	U		<0.048		mg/kg	1	0.048	0.19	08/12/11
Molybdenum	7439-98-7	LA-505-412	U		<0.096		mg/kg	1	0.096	0.96	08/12/11
Strontium	7440-24-6	LA-505-412	B		0.136		mg/kg	1	0.096	0.96	08/12/11
Tin	7440-31-5	LA-505-412	U		<0.096		mg/kg	1	0.096	0.48	08/12/11
Uranium	7440-61-1	LA-505-412	U		<0.096		mg/kg	1	0.096	0.48	08/12/11
Arsenic	7440-38-2	LA-505-412	U		<0.38		mg/kg	1	0.38	3.8	08/12/11
Selenium	7782-49-2	LA-505-412	BC	3.0U	0.539		mg/kg	1	0.29	2.9	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903008
SAF# F11-096
Sample ID B2FNX1

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	B		4.14		mg/kg	1	3.1	21	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	B		1.13		mg/kg	1	0.96	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410	B		5.86		mg/kg	1	3.6	53	08/10/11
Cr(VI) Prep											**08/10/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN		<0.10		ug/g	1	0.10	0.50	08/11/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			411		mg/kg	1	0.099	0.99	08/12/11
Nickel	7440-02-0	LA-505-412			9.17		mg/kg	1	0.20	2.0	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.099		mg/kg	1	0.099	0.99	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.30		mg/kg	1	0.30	3.0	08/12/11
Barium	7440-39-3	LA-505-412			59.9		mg/kg	1	0.20	2.0	08/12/11
Beryllium	7440-41-7	LA-505-412	BC	0.50U	0.300		mg/kg	1	0.099	0.50	08/12/11
Boron	7440-42-8	LA-505-412	B		1.57		mg/kg	1	0.50	5.0	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903008
SAF# F11-096
Sample ID B2FNX1

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cadmium	7440-43-9	LA-505-412	U		<0.099		mg/kg	1	0.099	0.99	08/12/11
Chromium	7440-47-3	LA-505-412			5.28		mg/kg	1	0.50	5.0	08/12/11
Cobalt	7440-48-4	LA-505-412			12.1		mg/kg	1	0.099	0.50	08/12/11
Copper	7440-50-8	LA-505-412			18.4		mg/kg	1	0.099	0.99	08/12/11
Vanadium	7440-62-2	LA-505-412			86.5		mg/kg	1	0.20	2.0	08/12/11
Zinc	7440-66-6	LA-505-412			55.2		mg/kg	1	0.80	5.0	08/12/11
Lead	7439-92-1	LA-505-412			4.05		mg/kg	1	0.099	0.99	08/12/11
Mercury	7439-97-6	LA-505-412	U		<0.050		mg/kg	1	0.050	0.20	08/12/11
Molybdenum	7439-98-7	LA-505-412	B		0.516		mg/kg	1	0.099	0.99	08/12/11
Strontium	7440-24-6	LA-505-412			27.6		mg/kg	1	0.099	0.99	08/12/11
Tin	7440-31-5	LA-505-412			0.572		mg/kg	1	0.099	0.50	08/12/11
Uranium	7440-61-1	LA-505-412	B		0.477		mg/kg	1	0.099	0.50	08/12/11
Arsenic	7440-38-2	LA-505-412	B		2.45		mg/kg	1	0.40	4.0	08/12/11
Selenium	7782-49-2	LA-505-412	BC	3.0U	0.948		mg/kg	1	0.30	3.0	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903009
SAF# F11-096
Sample ID B2FNX2

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410			20.3		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	U		<0.95		mg/kg	1	0.95	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410			139		mg/kg	1	3.6	53	08/10/11
Cr(VI) Prep											**08/10/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN		<0.10		ug/g	1	0.10	0.50	08/11/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			336		mg/kg	1	0.093	0.93	08/12/11
Nickel	7440-02-0	LA-505-412			7.56		mg/kg	1	0.19	1.9	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.093		mg/kg	1	0.093	0.93	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.28		mg/kg	1	0.28	2.8	08/12/11
Barium	7440-39-3	LA-505-412			50.8		mg/kg	1	0.19	1.9	08/12/11
Beryllium	7440-41-7	LA-505-412	BC	0.50U	0.248		mg/kg	1	0.093	0.46	08/12/11
Boron	7440-42-8	LA-505-412	B		0.594		mg/kg	1	0.46	4.6	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903009
SAF# F11-096
Sample ID B2FNX2

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cadmium	7440-43-9	LA-505-412	U		<0.093		mg/kg	1	0.093	0.93	08/12/11
Chromium	7440-47-3	LA-505-412	B		3.81		mg/kg	1	0.46	4.6	08/12/11
Cobalt	7440-48-4	LA-505-412			10.8		mg/kg	1	0.093	0.46	08/12/11
Copper	7440-50-8	LA-505-412			17.1		mg/kg	1	0.093	0.93	08/12/11
Vanadium	7440-62-2	LA-505-412			75.9		mg/kg	1	0.19	1.9	08/12/11
Zinc	7440-66-6	LA-505-412			52.3		mg/kg	1	0.74	4.6	08/12/11
Lead	7439-92-1	LA-505-412			2.76		mg/kg	1	0.093	0.93	08/12/11
Mercury	7439-97-6	LA-505-412	U		<0.046		mg/kg	1	0.046	0.19	08/12/11
Molybdenum	7439-98-7	LA-505-412	B		0.674		mg/kg	1	0.093	0.93	08/12/11
Strontium	7440-24-6	LA-505-412			27.6		mg/kg	1	0.093	0.93	08/12/11
Tin	7440-31-5	LA-505-412	B		0.456		mg/kg	1	0.093	0.46	08/12/11
Uranium	7440-61-1	LA-505-412			0.472		mg/kg	1	0.093	0.46	08/12/11
Arsenic	7440-38-2	LA-505-412	B		1.47		mg/kg	1	0.37	3.7	08/12/11
Selenium	7782-49-2	LA-505-412	BC	3.0U	1.05		mg/kg	1	0.28	2.8	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903010
SAF# F11-096
Sample ID B2FNX3

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	U		<3.1		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	U		<0.95		mg/kg	1	0.95	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410	B		21.0		mg/kg	1	3.6	53	08/10/11
Cr(VI) Prep											**08/11/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN		<0.10		ug/g	1	0.10	0.50	08/12/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			341		mg/kg	1	0.098	0.98	08/12/11
Nickel	7440-02-0	LA-505-412			8.10		mg/kg	1	0.20	2.0	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.098		mg/kg	1	0.098	0.98	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.30		mg/kg	1	0.30	3.0	08/12/11
Barium	7440-39-3	LA-505-412			50.7		mg/kg	1	0.20	2.0	08/12/11
Beryllium	7440-41-7	LA-505-412	BC	0.50U	0.340		mg/kg	1	0.098	0.49	08/12/11
Boron	7440-42-8	LA-505-412	B		0.962		mg/kg	1	0.49	4.9	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903010
SAF# F11-096
Sample ID B2FNX3

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cadmium	7440-43-9	LA-505-412	U		<0.098		mg/kg	1	0.098	0.98	08/12/11
Chromium	7440-47-3	LA-505-412			4.99		mg/kg	1	0.49	4.9	08/12/11
Cobalt	7440-48-4	LA-505-412			11.5		mg/kg	1	0.098	0.49	08/12/11
Copper	7440-50-8	LA-505-412			19.0		mg/kg	1	0.098	0.98	08/12/11
Vanadium	7440-62-2	LA-505-412			79.9		mg/kg	1	0.20	2.0	08/12/11
Zinc	7440-66-6	LA-505-412			50.8		mg/kg	1	0.79	4.9	08/12/11
Lead	7439-92-1	LA-505-412			2.97		mg/kg	1	0.098	0.98	08/12/11
Mercury	7439-97-6	LA-505-412	U		<0.049		mg/kg	1	0.049	0.20	08/12/11
Molybdenum	7439-98-7	LA-505-412	B		0.449		mg/kg	1	0.098	0.98	08/12/11
Strontium	7440-24-6	LA-505-412			25.0		mg/kg	1	0.098	0.98	08/12/11
Tin	7440-31-5	LA-505-412			0.547		mg/kg	1	0.098	0.49	08/12/11
Uranium	7440-61-1	LA-505-412			0.490		mg/kg	1	0.098	0.49	08/12/11
Arsenic	7440-38-2	LA-505-412	B		1.34		mg/kg	1	0.39	3.9	08/12/11
Selenium	7782-49-2	LA-505-412	BC	3.0U	1.21		mg/kg	1	0.30	3.0	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903011
SAF# F11-096
Sample ID B2FNX4

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	U		<3.1		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	U		<0.95		mg/kg	1	0.95	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410	B		8.92		mg/kg	1	3.6	53	08/10/11
Cr(VI) Prep											**08/11/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN		<0.10		ug/g	1	0.10	0.50	08/12/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			356		mg/kg	1	0.097	0.97	08/12/11
Nickel	7440-02-0	LA-505-412			8.08		mg/kg	1	0.19	1.9	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.097		mg/kg	1	0.097	0.97	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.29		mg/kg	1	0.29	2.9	08/12/11
Barium	7440-39-3	LA-505-412			52.0		mg/kg	1	0.19	1.9	08/12/11
Beryllium	7440-41-7	LA-505-412	BC	0.50U	0.265		mg/kg	1	0.097	0.48	08/12/11
Boron	7440-42-8	LA-505-412	B		0.701		mg/kg	1	0.48	4.8	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903011
SAF# F11-096
Sample ID B2FNX4

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cadmium	7440-43-9	LA-505-412	U		<0.097		mg/kg	1	0.097	0.97	08/12/11
Chromium	7440-47-3	LA-505-412	B		4.31		mg/kg	1	0.48	4.8	08/12/11
Cobalt	7440-48-4	LA-505-412			11.7		mg/kg	1	0.097	0.48	08/12/11
Copper	7440-50-8	LA-505-412			17.5		mg/kg	1	0.097	0.97	08/12/11
Vanadium	7440-62-2	LA-505-412			86.1		mg/kg	1	0.19	1.9	08/12/11
Zinc	7440-66-6	LA-505-412			53.0		mg/kg	1	0.78	4.8	08/12/11
Lead	7439-92-1	LA-505-412			3.40		mg/kg	1	0.097	0.97	08/12/11
Mercury	7439-97-6	LA-505-412	U		<0.048		mg/kg	1	0.048	0.19	08/12/11
Molybdenum	7439-98-7	LA-505-412	B		0.520		mg/kg	1	0.097	0.97	08/12/11
Strontium	7440-24-6	LA-505-412			27.0		mg/kg	1	0.097	0.97	08/12/11
Tin	7440-31-5	LA-505-412			0.559		mg/kg	1	0.097	0.48	08/12/11
Uranium	7440-61-1	LA-505-412			0.480		mg/kg	1	0.097	0.48	08/12/11
Arsenic	7440-38-2	LA-505-412	B		1.63		mg/kg	1	0.39	3.9	08/12/11
Selenium	7782-49-2	LA-505-412	BC	3.0U	0.895		mg/kg	1	0.29	2.9	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903012
SAF# F11-096
Sample ID B2FNX5

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**08/10/11**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	B	3.24		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	U	<0.95		mg/kg	1	0.95	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410	B	27.8		mg/kg	1	3.6	52	08/10/11
Cr(VI) Prep										**08/11/11**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	UN	<0.10		ug/g	1	0.10	0.50	08/12/11
ICPMS Prep										**08/11/11**
ICP-MS										
Manganese	7439-96-5	LA-505-412		395		mg/kg	1	0.096	0.96	08/12/11
Nickel	7440-02-0	LA-505-412		10.6		mg/kg	1	0.19	1.9	08/12/11
Silver	7440-22-4	LA-505-412	U	<0.096		mg/kg	1	0.096	0.96	08/12/11
Antimony	7440-36-0	LA-505-412	U	<0.29		mg/kg	1	0.29	2.9	08/12/11
Barium	7440-39-3	LA-505-412		61.0		mg/kg	1	0.19	1.9	08/12/11
Beryllium	7440-41-7	LA-505-412	C	0.502		mg/kg	1	0.096	0.48	08/12/11
Boron	7440-42-8	LA-505-412	B	0.655		mg/kg	1	0.48	4.8	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903012
SAF# F11-096
Sample ID B2FNX5

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cadmium	7440-43-9	LA-505-412	U		<0.096		mg/kg	1	0.096	0.96	08/12/11
Chromium	7440-47-3	LA-505-412			6.72		mg/kg	1	0.48	4.8	08/12/11
Cobalt	7440-48-4	LA-505-412			11.8		mg/kg	1	0.096	0.48	08/12/11
Copper	7440-50-8	LA-505-412			17.8		mg/kg	1	0.096	0.96	08/12/11
Vanadium	7440-62-2	LA-505-412			81.7		mg/kg	1	0.19	1.9	08/12/11
Zinc	7440-66-6	LA-505-412			53.8		mg/kg	1	0.77	4.8	08/12/11
Lead	7439-92-1	LA-505-412			4.45		mg/kg	1	0.096	0.96	08/12/11
Mercury	7439-97-6	LA-505-412	U		<0.048		mg/kg	1	0.048	0.19	08/12/11
Molybdenum	7439-98-7	LA-505-412	B		0.538		mg/kg	1	0.096	0.96	08/12/11
Strontium	7440-24-6	LA-505-412			27.1		mg/kg	1	0.096	0.96	08/12/11
Tin	7440-31-5	LA-505-412			0.605		mg/kg	1	0.096	0.48	08/12/11
Uranium	7440-61-1	LA-505-412			0.482		mg/kg	1	0.096	0.48	08/12/11
Arsenic	7440-38-2	LA-505-412	B		2.38		mg/kg	1	0.39	3.9	08/12/11
Selenium	7782-49-2	LA-505-412	BC	3.0U	0.917		mg/kg	1	0.29	2.9	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903013
SAF# F11-096
Sample ID B2FNX6

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	U		<3.1		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	U		<0.95		mg/kg	1	0.95	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410	B		11.3		mg/kg	1	3.6	52	08/10/11
Cr(VI) Prep											**08/11/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN		<0.10		ug/g	1	0.10	0.50	08/12/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			391		mg/kg	1	0.093	0.93	08/12/11
Nickel	7440-02-0	LA-505-412			8.09		mg/kg	1	0.19	1.9	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.093		mg/kg	1	0.093	0.93	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.28		mg/kg	1	0.28	2.8	08/12/11
Barium	7440-39-3	LA-505-412			54.4		mg/kg	1	0.19	1.9	08/12/11
Beryllium	7440-41-7	LA-505-412	BC	0.50U	0.328		mg/kg	1	0.093	0.47	08/12/11
Boron	7440-42-8	LA-505-412	B		0.572		mg/kg	1	0.47	4.7	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903013
SAF# F11-096
Sample ID B2FNX6

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cadmium	7440-43-9	LA-505-412	U		<0.093		mg/kg	1	0.093	0.93	08/12/11
Chromium	7440-47-3	LA-505-412			4.84		mg/kg	1	0.47	4.7	08/12/11
Cobalt	7440-48-4	LA-505-412			11.8		mg/kg	1	0.093	0.47	08/12/11
Copper	7440-50-8	LA-505-412			17.6		mg/kg	1	0.093	0.93	08/12/11
Vanadium	7440-62-2	LA-505-412			84.2		mg/kg	1	0.19	1.9	08/12/11
Zinc	7440-66-6	LA-505-412			50.6		mg/kg	1	0.75	4.7	08/12/11
Lead	7439-92-1	LA-505-412			3.26		mg/kg	1	0.093	0.93	08/12/11
Mercury	7439-97-6	LA-505-412	U		<0.047		mg/kg	1	0.047	0.19	08/12/11
Molybdenum	7439-98-7	LA-505-412	B		0.468		mg/kg	1	0.093	0.93	08/12/11
Strontium	7440-24-6	LA-505-412			23.2		mg/kg	1	0.093	0.93	08/12/11
Tin	7440-31-5	LA-505-412			0.496		mg/kg	1	0.093	0.47	08/12/11
Uranium	7440-61-1	LA-505-412	B		0.392		mg/kg	1	0.093	0.47	08/12/11
Arsenic	7440-38-2	LA-505-412	B		1.59		mg/kg	1	0.37	3.7	08/12/11
Selenium	7782-49-2	LA-505-412	BC	3.0U	1.02		mg/kg	1	0.28	2.8	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903014
SAF# F11-096
Sample ID B2FNX7

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	B		5.36		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	B		2.68		mg/kg	1	0.95	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410	B		27.0		mg/kg	1	3.6	53	08/10/11
Cr(VI) Prep											**08/11/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN		<0.098		ug/g	1	0.098	0.49	08/12/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			402		mg/kg	1	0.096	0.96	08/12/11
Nickel	7440-02-0	LA-505-412			9.93		mg/kg	1	0.19	1.9	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.096		mg/kg	1	0.096	0.96	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.29		mg/kg	1	0.29	2.9	08/12/11
Barium	7440-39-3	LA-505-412			64.7		mg/kg	1	0.19	1.9	08/12/11
Beryllium	7440-41-7	LA-505-412	BC	0.50U	0.328		mg/kg	1	0.096	0.48	08/12/11
Boron	7440-42-8	LA-505-412	B		0.642		mg/kg	1	0.48	4.8	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903014
SAF# F11-096
Sample ID B2FNX7

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cadmium	7440-43-9	LA-505-412	U		<0.096		mg/kg	1	0.096	0.96	08/12/11
Chromium	7440-47-3	LA-505-412			7.12		mg/kg	1	0.48	4.8	08/12/11
Cobalt	7440-48-4	LA-505-412			12.1		mg/kg	1	0.096	0.48	08/12/11
Copper	7440-50-8	LA-505-412			18.4		mg/kg	1	0.096	0.96	08/12/11
Vanadium	7440-62-2	LA-505-412			80.0		mg/kg	1	0.19	1.9	08/12/11
Zinc	7440-66-6	LA-505-412			53.7		mg/kg	1	0.77	4.8	08/12/11
Lead	7439-92-1	LA-505-412			4.63		mg/kg	1	0.096	0.96	08/12/11
Mercury	7439-97-6	LA-505-412	U		<0.048		mg/kg	1	0.048	0.19	08/12/11
Molybdenum	7439-98-7	LA-505-412	B		0.518		mg/kg	1	0.096	0.96	08/12/11
Strontium	7440-24-6	LA-505-412			28.7		mg/kg	1	0.096	0.96	08/12/11
Tin	7440-31-5	LA-505-412			0.518		mg/kg	1	0.096	0.48	08/12/11
Uranium	7440-61-1	LA-505-412			0.486		mg/kg	1	0.096	0.48	08/12/11
Arsenic	7440-38-2	LA-505-412	B		2.46		mg/kg	1	0.38	3.8	08/12/11
Selenium	7782-49-2	LA-505-412	BC	3.0U	1.28		mg/kg	1	0.29	2.9	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903015
SAF# F11-096
Sample ID B2FNX8

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	B		17.8		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410			6.74		mg/kg	1	0.95	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410			72.6		mg/kg	1	3.6	53	08/10/11
Cr(VI) Prep											**08/11/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN		<0.10		ug/g	1	0.10	0.51	08/12/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			341		mg/kg	1	0.091	0.91	08/12/11
Nickel	7440-02-0	LA-505-412			11.6		mg/kg	1	0.18	1.8	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.091		mg/kg	1	0.091	0.91	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.27		mg/kg	1	0.27	2.7	08/12/11
Barium	7440-39-3	LA-505-412			58.4		mg/kg	1	0.18	1.8	08/12/11
Beryllium	7440-41-7	LA-505-412	BC	0.50U	0.354		mg/kg	1	0.091	0.46	08/12/11
Boron	7440-42-8	LA-505-412	B		0.889		mg/kg	1	0.46	4.6	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903015
SAF# F11-096
Sample ID B2FNX8

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cadmium	7440-43-9	LA-505-412	U		<0.091		mg/kg	1	0.091	0.91	08/12/11
Chromium	7440-47-3	LA-505-412			6.38		mg/kg	1	0.46	4.6	08/12/11
Cobalt	7440-48-4	LA-505-412			10.9		mg/kg	1	0.091	0.46	08/12/11
Copper	7440-50-8	LA-505-412			17.6		mg/kg	1	0.091	0.91	08/12/11
Vanadium	7440-62-2	LA-505-412			78.8		mg/kg	1	0.18	1.8	08/12/11
Zinc	7440-66-6	LA-505-412			50.2		mg/kg	1	0.73	4.6	08/12/11
Lead	7439-92-1	LA-505-412			3.99		mg/kg	1	0.091	0.91	08/12/11
Mercury	7439-97-6	LA-505-412	U		<0.046		mg/kg	1	0.046	0.18	08/12/11
Molybdenum	7439-98-7	LA-505-412	B		0.546		mg/kg	1	0.091	0.91	08/12/11
Strontium	7440-24-6	LA-505-412			27.2		mg/kg	1	0.091	0.91	08/12/11
Tin	7440-31-5	LA-505-412			0.617		mg/kg	1	0.091	0.46	08/12/11
Uranium	7440-61-1	LA-505-412			0.468		mg/kg	1	0.091	0.46	08/12/11
Arsenic	7440-38-2	LA-505-412	B		2.10		mg/kg	1	0.37	3.7	08/12/11
Selenium	7782-49-2	LA-505-412	BC	3.0U	0.982		mg/kg	1	0.27	2.7	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

EH
11/10/11

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903016
SAF# F11-096
Sample ID B2FNX9

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**08/10/11**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	B	4.10		mg/kg	1	3.1	21	08/10/11
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	B	1.30		mg/kg	1	0.96	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410	B	13.0		mg/kg	1	3.6	53	08/10/11
Cr(VI) Prep										**08/11/11**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	UN	<0.099		ug/g	1	0.099	0.49	08/12/11
ICPMS Prep										**08/11/11**
ICP-MS										
Manganese	7439-96-5	LA-505-412		382		mg/kg	1	0.094	0.94	08/12/11
Nickel	7440-02-0	LA-505-412		8.93		mg/kg	1	0.19	1.9	08/12/11
Silver	7440-22-4	LA-505-412	U	<0.094		mg/kg	1	0.094	0.94	08/12/11
Antimony	7440-36-0	LA-505-412	U	<0.28		mg/kg	1	0.28	2.8	08/12/11
Barium	7440-39-3	LA-505-412		57.1		mg/kg	1	0.19	1.9	08/12/11
Beryllium	7440-41-7	LA-505-412	BC 0.50U	0.297		mg/kg	1	0.094	0.47	08/12/11
Boron	7440-42-8	LA-505-412	U	<0.47		mg/kg	1	0.47	4.7	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903016
SAF# F11-096
Sample ID B2FNX9

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cadmium	7440-43-9	LA-505-412	U		<0.094		mg/kg	1	0.094	0.94	08/12/11
Chromium	7440-47-3	LA-505-412			5.27		mg/kg	1	0.47	4.7	08/12/11
Cobalt	7440-48-4	LA-505-412			11.7		mg/kg	1	0.094	0.47	08/12/11
Copper	7440-50-8	LA-505-412			17.2		mg/kg	1	0.094	0.94	08/12/11
Vanadium	7440-62-2	LA-505-412			87.1		mg/kg	1	0.19	1.9	08/12/11
Zinc	7440-66-6	LA-505-412			53.8		mg/kg	1	0.75	4.7	08/12/11
Lead	7439-92-1	LA-505-412			4.23		mg/kg	1	0.094	0.94	08/12/11
Mercury	7439-97-6	LA-505-412	U		<0.047		mg/kg	1	0.047	0.19	08/12/11
Molybdenum	7439-98-7	LA-505-412	B		0.494		mg/kg	1	0.094	0.94	08/12/11
Strontium	7440-24-6	LA-505-412			27.3		mg/kg	1	0.094	0.94	08/12/11
Tin	7440-31-5	LA-505-412			0.549		mg/kg	1	0.094	0.47	08/12/11
Uranium	7440-61-1	LA-505-412			0.473		mg/kg	1	0.094	0.47	08/12/11
Arsenic	7440-38-2	LA-505-412	B		3.01		mg/kg	1	0.37	3.7	08/12/11
Selenium	7782-49-2	LA-505-412	BC	3.0U	0.808		mg/kg	1	0.28	2.8	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FNX2

TOTAL Metals

Lot-Sample #...: F1J190432-001 Matrix.....: SOLID
Date Sampled...: 08/09/11 Date Received..: 10/19/11
% Moisture.....: 1.1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293028						
Selenium	2.5	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAFC1A2
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FNY4

TOTAL Metals

Lot-Sample #...: F1J190432-002 Matrix.....: SOLID
Date Sampled...: 08/09/11 Date Received..: 10/19/11
% Moisture.....: 1.1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293028						
Selenium	2.3	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAFE1A2
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FNY5

TOTAL Metals

Lot-Sample #...: F1J190432-003 Matrix.....: SOLID
Date Sampled...: 08/09/11 Date Received..: 10/19/11
% Moisture.....: 1.2

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293028						
Selenium	2.4	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAFH1A2
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FNX5

TOTAL Metals

Lot-Sample #...: F1J190432-004 Matrix.....: SOLID
Date Sampled...: 08/09/11 Date Received..: 10/19/11
% Moisture.....: 1.2

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293028						
Selenium	2.3	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAFJ1A2
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FNX6

TOTAL Metals

Lot-Sample #...: F1J190432-005 Matrix.....: SOLID
Date Sampled...: 08/09/11 Date Received..: 10/19/11
% Moisture.....: 1.2

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293028						
Selenium	2.4	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAFP1AD
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FNX8

TOTAL Metals

Lot-Sample #...: F1J190432-006 Matrix.....: SOLID
Date Sampled...: 08/09/11 Date Received..: 10/19/11
% Moisture.....: 1.4

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293028						
Selenium	2.1	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAF11AE
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FNX9

TOTAL Metals

Lot-Sample #...: F1J190432-007 Matrix.....: SOLID
Date Sampled...: 08/09/11 Date Received..: 10/19/11
% Moisture.....: 1.4

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293028						
Selenium	2.1	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAF51AE
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FNX4

TOTAL Metals

Lot-Sample #...: F1J190432-008 Matrix.....: SOLID
Date Sampled...: 08/09/11 Date Received..: 10/19/11
% Moisture.....: 1.0

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293028						
Selenium	2.1	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAF71AE
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FNX1

TOTAL Metals

Lot-Sample #...: F1J190432-009 Matrix.....: SOLID
Date Sampled...: 08/09/11 Date Received..: 10/19/11
% Moisture.....: 1.4

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293028						
Selenium	2.2	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAF91AE
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FK07

TOTAL Metals

Lot-Sample #...: F1J190432-010 Matrix.....: SOLID
Date Sampled...: 07/18/11 Date Received..: 10/19/11
% Moisture.....: 1.7

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293028						
Selenium	1.8	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAGC1AE
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FJX8

TOTAL Metals

Lot-Sample #...: F1J190432-011 Matrix.....: SOLID
Date Sampled...: 07/18/11 Date Received..: 10/19/11
% Moisture.....: 1.7

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293028						
Selenium	1.9	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAGM1AE
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FNY0

TOTAL Metals

Lot-Sample #...: F1J190432-012 Matrix.....: SOLID
Date Sampled...: 08/09/11 Date Received..: 10/19/11
% Moisture.....: 0.020

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293028						
Selenium	ND	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAGN1AE
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FJX9

TOTAL Metals

Lot-Sample #...: F1J190432-013 Matrix.....: SOLID
Date Sampled...: 07/18/11 Date Received..: 10/19/11
% Moisture.....: 1.2

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293029						
Selenium	2.2	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAGP1AE
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FJX7

TOTAL Metals

Lot-Sample #...: F1J190432-014 Matrix.....: SOLID
Date Sampled...: 07/18/11 Date Received..: 10/19/11
% Moisture.....: 1.8

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293029						
Selenium	2.1	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAGQ1AE
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FNX7

TOTAL Metals

Lot-Sample #...: F1J190432-015 Matrix.....: SOLID
Date Sampled...: 08/09/11 Date Received..: 10/19/11
% Moisture.....: 1.4

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293029						
Selenium	2.3	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAGR1AE
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FNY6

TOTAL Metals

Lot-Sample #...: F1J190432-016 **Matrix.....:** SOLID
Date Sampled...: 08/09/11 **Date Received..:** 10/19/11
% Moisture.....: 0.010

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293029						
Selenium	ND	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAGT1AE
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FNX3

TOTAL Metals

Lot-Sample #...: F1J190432-017 Matrix.....: SOLID
Date Sampled...: 08/09/11 Date Received..: 10/19/11
% Moisture.....: 1.1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293029						
Selenium	2.1	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAGV1AE
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FJY2

TOTAL Metals

Lot-Sample #...: F1J190432-018 Matrix.....: SOLID
Date Sampled...: 07/18/11 Date Received..: 10/19/11
% Moisture.....: 1.3

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293029						
Selenium	2.3	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAGW1AE
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FJY1

TOTAL Metals

Lot-Sample #...: F1J190432-019 Matrix.....: SOLID
Date Sampled...: 07/18/11 Date Received..: 10/19/11
% Moisture.....: 1.3

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293029						
Selenium	2.1	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAGX1AE
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FJY0

TOTAL Metals

Lot-Sample #...: F1J190432-020 Matrix.....: SOLID
Date Sampled...: 07/18/11 Date Received..: 10/19/11
% Moisture.....: 1.3

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293029						
Selenium	1.7	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAG01AE
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FNY1

TOTAL Metals

Lot-Sample #...: F1J190432-021 Matrix.....: SOLID
Date Sampled...: 08/09/11 Date Received..: 10/19/11
% Moisture.....: 1.0

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293029						
Selenium	2.1	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAG11AE
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FNY2

TOTAL Metals

Lot-Sample #...: F1J190432-022 Matrix.....: SOLID
Date Sampled...: 08/09/11 Date Received..: 10/19/11
% Moisture.....: 0.94

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293029						
Selenium	2.4	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAG21AE
		Dilution Factor: 1		MDL.....: 0.16		

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2FNY3

TOTAL Metals

Lot-Sample #...: F1J190432-023 Matrix.....: SOLID
Date Sampled...: 08/09/11 Date Received..: 10/19/11
% Moisture.....: 0.96

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1293029						
Selenium	2.1	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNAG41AE
		Dilution Factor: 1		MDL.....: 0.16		

Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

Attachment 2
Narrative Rev 1
WSCF112903

Revision 1: Case Narrative Replaces the Prior Submittal in its Entirety. Case narrative was inadvertently omitted from original report.

Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, "FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER."*

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

It should be noted that the attached chain of custody was not stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving. However, based on procedure LO-090-403 form "NOTICE OF IMPROPER SAMPLE SUBMITTAL" was not submitted and was not stamped "NOT ICED". No anomaly was noted during sample receipt.

The following generic data qualifiers (i.e., B, D, U and J) may be applicable to this report, as appropriate

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wet chemical analyses), as appropriate.
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.
- **U** – Analyzed for but not detected above limiting criteria. Relative Percent Difference (RPD) values associated with an analyte qualified with a "U" are not applicable.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report* for a complete listing of approved analytical methods.

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Attachment 2
Narrative Rev 1
WSCF112903

Hexavalent Chromium – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 188092
  - Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
- Batch QC 188130
  - Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

  - Selenium and Beryllium – Detected in the Blank and evaluated. Affected sample results in this batch were "C" Flagged.
  - All other applicable QC controls are within the established limits.

We 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 data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-148	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND
SAMPLING LOCATION: Area AA Stockpile #5A Sample 10	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	12 Days / 12 Days
ICE CHEST NO.: SML-007	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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)

112903

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None	Cool-4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY0	SOIL	8/9/11	0850	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: JA Renzin	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-096-149	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01 / DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5B Sample 1	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23.	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE / ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
MOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY1	2	SOIL	8/9/11	1312	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Pinzin	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F11-096-150	PAGE 1 OF 1

COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01 / DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5B Sample 2	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-25.	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE / ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY2 3	SOIL	8/9/11	1240	✓	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FM Hall CHPRC	8/9/11 1425	TAFNAZIEN Jacob	8/9/11 1425

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F11-096-151	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN
PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days	SAMPLING LOCATION: Area AA Stockpile #5B Sample 3	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil
SAF NO.: F11-096	AIR QUALITY: ☐	ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23.
ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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, Va=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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY3 4	SOIL	8/9/11	1210	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FM Hall CHPRC	8/9/11 1425	JA Fnazim	8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Artimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-152	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5B Sample 4	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY4 5	SOIL	8/9/11	1155	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Fuzzim	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-153	PAGE 1 OF 1
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5B Sample 5	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY5 10	SOIL	8/9/11	1312	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Erazian	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-154	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5B Sample 6	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY6 7	SOIL	8/9/11	1130	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Frazin	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-139	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 1	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23.	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	None	Cool-4C
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	28 Days/48 Hours
		TYPE OF CONTAINER	G/P	G/P
		NO. OF CONTAINER(S)	1	1
		VOLUME	120mL	60mL
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX1 8	SOIL	8/9/11	0917	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FM Hall CHPRC	8/9/11 1425	TA PMAZIER	8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-096-140	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01 / AIR QUALITY: ☐ / DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #SA Sample 2	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23.	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE / ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX2 9	SOIL	8/9/11	0920	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Frazier	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-141	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 3	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23.	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302687ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	None	Cool~4C
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	28 Days/48 Hours
		TYPE OF CONTAINER	G/P	G/P
		NO. OF CONTAINER(S)	1	1
		VOLUME	120mL	60mL
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX3 ID	SOIL	8/9/11	0935	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Frazier	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-142	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #SA Sample 4	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX4	11	SOIL	8/9/11	0948	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: D A Frazier	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-143	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 5	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23.	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX5	12	SOIL	8/9/11	0955	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Frazier	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-144	PAGE 1 OF 1
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1657	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 6	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX6 13	SOIL	8/9/11	1010	✓	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FM Hall CHPRC	8-9-11 1425	TA FM22129	8-9-11 1425

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011 A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-145	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 7	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool-4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX7 14	SOIL	8/9/11	1016	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Frazier	DATE/TIME: 8/9/11 1425	** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GK1 applies to this SAF. (1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196; (2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
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	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-146	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND
SAMPLING LOCATION: Area AA Stockpile #5A Sample 8	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: [ ]	12 Days / 12 Days
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool-4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX8	15	SOIL	8/9/11	1029	✓	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FM Hall CHPRC	8/9/11 1425	TA Frazier	8/9/11 1425

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-147	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1567	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 9	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: [ ]	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23.	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX9 16	SOIL	8/9/11	0917	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Frazier	DATE/TIME: 8/9/11 1425	** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. (1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196; (2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
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	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 7/11/2011

A-6007-618 (REV 7)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CASE NARRATIVE

CH2MHill Plateau Remediation Company
P.O. Box 1600
MS B3-60
Richland, Washington 99352
October 29, 2011
Attention: Mike Neely

TestAmerica Laboratories, Inc.

SDG	: SL1159
Number of Samples	: 23 samples
Sample Matrix	: Solid
Data Deliverable	: Summary
Date SDG Closed	: October 19, 2011

II. Introduction

On October 19, 2011, 23 samples were received by TestAmerica - St. Louis for chemical analysis. The samples were received within temperature criteria. See the COC and CUR forms for documentation of any variations on receipt conditions and temperature. Upon receipt, the samples were given laboratory Ids to correspond with specific client Ids. Please refer to the Sample Summary sheets attached to this case narrative. This report is incomplete without the narrative.

The following SAFs are associated with this SDG: F11-096

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits. All results are based upon samples as they were received, i.e. wet weight, unless otherwise noted on the data sheets. See the attached Methods Summary Form for the methods used in this SDG.

MS/MSD/Dup analysis was done per the client requirements. Analytical batches that did not contain matrix QC were analyzed with a LCS/LCS duplicate.

Deviation from Request: None

IV. Definitions

QCBLK-	Quality Control Blank, Method Blank
QCLCS-	Quality Control Laboratory Control Sample, Blank Spike
DUP-	Laboratory Duplicate
MS-	Matrix Spike
MSD-	Matrix Spike Duplicate

The term "Detection Limit" used in the analytical data report refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CH2M Hill Plateau Remediation Company

TestAmerica Laboratories, Inc.

October 29, 2011
SDG: SL1159

The following data qualifiers may be applicable to the results in this report, as appropriate.

- **B** – For inorganic analyses, the sample result is greater than the MDL but less than the RL.
- **B** – For organic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **J** – For organic analyses, the sample is estimated and less than the RL.
- **C** – For inorganic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **D** – For all analyses, the sample result was obtained from the analysis of a dilution.
- **N** – For inorganics and GC analyses, the spike/spike duplicate recoveries are outside QC limits.
- **T** – For GCMS analyses, the spike/spike duplicate recoveries are outside QC limits.

ICP Metals

Batch: 1293028

The internal standard was outside QC limits in the CCV and/or CCB. All analytes were within acceptable limits, showing that there was no bias. Original results will be reported.

Affected Samples:
F1J190432 (1): B2FNX2
F1J190432 (2): B2FNY4
F1J190432 (3): B2FNY5
F1J190432 (4): B2FNX5
F1J190432 (5): B2FNX6
F1J190432 (6): B2FNX8
F1J190432 (7): B2FNX9
F1J190432 (8): B2FNX4
F1J190432 (9): B2FNX1
F1J190432 (10): B2FK07
F1J190432 (11): B2FJX8
F1J190432 (12): B2FNY0

Batch: 1293029

The internal standard was outside QC limits in the CCV and/or CCB. All analytes were within acceptable limits, showing that there was no bias. Original results will be reported.

Affected Samples:
F1J190432 (13): B2FJX9
F1J190432 (14): B2FJX7
F1J190432 (15): B2FNX7
F1J190432 (16): B2FNY6
F1J190432 (17): B2FNX3
F1J190432 (18): B2FJY2
F1J190432 (19): B2FJY1
F1J190432 (20): B2FJY0
F1J190432 (21): B2FNY1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CH2M Hill Plateau Remediation Company

October 29, 2011
SDG: SL1159

TestAmerica Laboratories, Inc.

F1J190432 (22): B2FNY2
F1J190432 (23): B2FNY3

I certify that this Summary Package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Reviewed and approved:

Michael Franks
St. Louis Project Manager

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-140D	PAGE 1 OF 1
COLLECTOR FM HALL CHPRC CWR1118	COMPANY CONTACT LUKE, SN	TELEPHONE NO. 372-1667	PROJECT COORDINATOR LUKE, SN	PRICE CODE C01	DATA TURNAROUND
SAMPLING LOCATION Area AA Stockpile #5A Sample 2	PROJECT DESIGNATION Area AA In-Process Sampling - Soil		SAF NO. F11-096	AIR QUALITY ☐	12 Days / 12 Days
ICE CHEST NO. GWS-163	FIELD LOGBOOK NO. HNF-N-507-2-3	ACTUAL SAMPLE DEPTH 0-1'	COA 302682ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A 7953 0685 2652		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FNX2	SOIL	8-9-11	0920	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
MA White CHPRC	OCT 17 2011 1430	SSL-1	OCT 17 2011 1430
RELINQUISHED BY/REMOVED FROM SSL-1	10-18-11 1600	RECEIVED BY/STORED IN KC Patterson CHPRC	OCT 18 2011 1600
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	OCT 18 2011 1600	RECEIVED BY/STORED IN FEDEX	
RELINQUISHED BY/REMOVED FROM FEDEX		RECEIVED BY/STORED IN Nicholas Owens	10/19/11 0935
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	

SPECIAL INSTRUCTIONS
** The CACN for all analytical work at WSCF laboratory is 402581ES20.** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
X See COC F11-096-140

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-140	PAGE 1 OF 1
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 2	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23.	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX2 9	SOIL	8/9/11	0920	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Frazier	DATE/TIME: 8/9/11 1425
RELINQUISHED BY/REMOVED FROM:	DATE/TIME: OCT 17 2011 1310	RECEIVED BY/STORED IN: MA White, CHPRC	DATE/TIME: OCT 17 2011 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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F11-096-152D	PAGE 1 OF 1

COLLECTOR: FM HALL	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5B Sample 4	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: GWS-183	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A 7953 0635 7652		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FNY4	SOIL	8/9/11	1155	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	OCT 17 2011 1430	SSU-1	OCT 17 2011 1430
SSU #1	10-18-11 0840	KC Patterson CHPRC	OCT 18 2011 0840
KC Patterson CHPRC	OCT 18 2011 1000	FEDEX	
FEDEX		NICHOLAS DUBOIS	10/19/11 0935

SPECIAL INSTRUCTIONS
** The CACN for all analytical work at WSCF laboratory is 402581ES20.** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

* SEE COC# F11-096-152

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-152	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5B Sample 4	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23.	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY4 5	SOIL	8/9/11	1155	✓	✓

CHAIN OF POSSESSION	DATE/TIME	SIGN/ PRINT NAMES: RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	8/9/11 1425	TA Fnazim	8/9/11 1425
RELINQUISHED BY/REMOVED FROM:	OCT 17 2011 1310	RECEIVED BY/STORED IN: MA White CHPRC	OCT 17 2011 1310
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	

SPECIAL INSTRUCTIONS
** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-153D	PAGE 1 OF 1
COLLECTOR: FM HALL	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND
SAMPLING LOCATION: Area AA Stockpile #5B Sample 5	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	12 Days / 12 Days
ICE CHEST NO.: GWS-183	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A 7953 0635 2652		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FNY5	SOIL	8/9/11	1312	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: KC Patterson	DATE/TIME: OCT 17 2011 1430	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: OCT 17 2011 1430
RELINQUISHED BY/REMOVED FROM: SSU #1	DATE/TIME: 10-18-11	RECEIVED BY/STORED IN: KC Patterson	DATE/TIME: OCT 18 2011
RELINQUISHED BY/REMOVED FROM: KC Patterson	DATE/TIME: OCT 18 2011 1800	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FEDEX	DATE/TIME:	RECEIVED BY/STORED IN: DICKLAS DUENS	DATE/TIME: 10/19/11 0935
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 CACN for all analytical work at WSCF laboratory is 402581ES20.** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

* SEE COC# F11-096-153

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-153	PAGE 1 OF 1
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND
SAMPLING LOCATION: Area AA Stockpile #5B Sample 5	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY ☐	12 Days / 12 Days
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

Shipped to Hall

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY5 10	SOIL	8/9/11	1312	✓	✓

CHAIN OF POSSESSION	DATE/TIME	SIGN/ PRINT NAMES	DATE/TIME
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	8/9/11 1425	RECEIVED BY/STORED IN: TA Frazier	8/9/11 1425
RELINQUISHED BY/REMOVED FROM: CHPRC	OCT 17 2011 1310	RECEIVED BY/STORED IN: MA White	OCT 17 2011 1310
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN: CHPRC	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-143D	PAGE 1 OF 1
COLLECTOR: FM HALL, CH PRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 5	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: GW5-183	FIELD LOGBOOK NO.: ~~HNF-N-507-~~ 2-3	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A 7953 0635 2652		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FNX5	SOIL	8-9-11	0955	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: MA White, CHPRC	DATE/TIME: OCT 17 2011 1430	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: OCT 17 2011 1430
RELINQUISHED BY/REMOVED FROM: SSU #1	DATE/TIME: 10-18-11 0800	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: OCT 18 2011 1500
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: OCT 18 2011 1500	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FEDEX	DATE/TIME:	RECEIVED BY/STORED IN: NICHOLAS OWENS	DATE/TIME: 10/19/11 0935
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 CACN for all analytical work at WSCF laboratory is 402581ES20.** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
See COC F11-096-143

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-143	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 5	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23.	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX5 12	SOIL	8/9/11	0955	✓	✓

Signed Mr 10/17/11

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Frazier	DATE/TIME: 8/9/11 1425
RELINQUISHED BY/REMOVED FROM:	DATE/TIME: OCT 17 2011 1310	RECEIVED BY/STORED IN: MA White CHPRC	DATE/TIME: OCT 17 2011 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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-144D	PAGE 1 OF 1
COLLECTOR: FM HALL CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 6	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: GWS-183	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A 7953 0635 2632		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FNX6	SOIL	8-9-11	1010	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: MA White, CHPRC	DATE/TIME: OCT 17 2011 1430	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: OCT 17 2011 1430
RELINQUISHED BY/REMOVED FROM: SSU #1	DATE/TIME: 10-18-11 0800	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: OCT 18 2011
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: OCT 18 2011 1500	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FEDEX	DATE/TIME:	RECEIVED BY/STORED IN: Nicholas Owens	DATE/TIME: 10/19/11 0935
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 CACN for all analytical work at WSCF laboratory is 402581ES20.** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
* See COC F11-096-144

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1159

SDG#SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-144	PAGE 1 OF 1
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 6	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX6 13	SOIL	8/9/11	1010	✓	✓

CHAIN OF POSSESSION	DATE/TIME	SIGN/ PRINT NAMES	DATE/TIME
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	8-9-11 1425	RECEIVED BY/STORED IN: TA Brazier	8-9-11 1425
RELINQUISHED BY/REMOVED FROM	OCT 17 2011 1310	RECEIVED BY/STORED IN: MA White, CHPRC	OCT 17 2011 1310
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-146D	PAGE 1 OF 1
COLLECTOR: FM HALL	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND
SAMPLING LOCATION: Area AA Stockpile #5A Sample 8	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY ☐	12 Days / 12 Days
ICE CHEST NO.: GWS783	FIELD LOGBOOK NO.: ~~HNF-N-507-~~ 23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A 7953 0635 2652		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FNX8	SOIL	8/9/11	1029	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: OCT 17 2011 1430	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: OCT 17 2011 1430
RELINQUISHED BY/REMOVED FROM: SSU #1	DATE/TIME: 10-18-11 0800	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: OCT 18 2011 1500
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: OCT 18 2011 1500	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FEDEX	DATE/TIME:	RECEIVED BY/STORED IN: NICHOLAS OWENS	DATE/TIME: 10/19/11 0935
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 CACN for all analytical work at WSCF laboratory is 402581ES20.** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

* SEE COC# F11-096-146

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-146	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 8	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.:	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX8 15	SOIL	8/9/11	1029	✓	✓

CHAIN OF POSSESSION	DATE/TIME	SIGN/ PRINT NAMES: RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	8/9/11 1425	TA FM Hall	8/9/11 1425
RELINQUISHED BY/REMOVED FROM:	OCT 17 2011 1310	RECEIVED BY/STORED IN: MA White CHPRC	OCT 17 2011 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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-147D	PAGE 1 OF 1
COLLECTOR: FM. HALL	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 9	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: GWS-183	FIELD LOGBOOK NO.: ~~HNF-N-507-~~ 23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A 7953 0635 2652		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FNX9	SOIL	8/9/11	0917	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: OCT 17 2011 / 1430	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: OCT 17 2011 / 1430
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: 10-18-11 / 0800	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: OCT 18 2011 / 0800
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: OCT 18 2011 / 1500	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FEDEX	DATE/TIME:	RECEIVED BY/STORED IN: NICHOLAS CUMBNS	DATE/TIME: 10/19/11 0935
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 CACN for all analytical work at WSCF laboratory is 402581ES20.** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

*See COC F11-096-147

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-147	PAGE 1 OF 1
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 9	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX9 16	SOIL	8/9/11	0917	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Bnazier	DATE/TIME: 8/9/11 1425
RELINQUISHED BY/REMOVED FROM:	DATE/TIME: OCT 17 2011 1310	RECEIVED BY/STORED IN: MA White	DATE/TIME: OCT 17 2011 1310
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN: CHPRC	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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-142D	PAGE 1 OF 1
COLLECTOR FMHALL CHPRC	COMPANY CONTACT LUKE, SN	TELEPHONE NO. 372-1667	PROJECT COORDINATOR LUKE, SN	PRICE CODE C01	DATA TURNAROUND
SAMPLING LOCATION Area AA Stockpile #5A Sample 4	PROJECT DESIGNATION Area AA In-Process Sampling - Soil		SAF NO. F11-096	AIR QUALITY ☐	12 Days / 12 Days
ICE CHEST NO. GWS-183	FIELD LOGBOOK NO. HNF-N-507-2-3	ACTUAL SAMPLE DEPTH 0-1'	COA 302682ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A 7953 0635 2652		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FNX4	SOIL	8-9-11	0948	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM MA White CHPRC	DATE/TIME OCT 17 2011 1430	RECEIVED BY/STORED IN SSL-1	DATE/TIME OCT 17 2011 1430
RELINQUISHED BY/REMOVED FROM SSL #1	DATE/TIME 10-18-11/0800	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME OCT 18 2011 0800
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME OCT 18 2011 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 10/19/11 0935
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 CACN for all analytical work at WSCF laboratory is 402581ES20.** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
*Sec COC F11-096-142

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-142	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND
SAMPLING LOCATION: Area AA Stockpile #5A Sample 4	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	12 Days / 12 Days
ICE CHEST NO.: SMC-009	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX4	SOIL	8/9/11	0948	✓	✓

Shipped 8/10/11

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FM Hall CHPRC	8/9/11 1425	JA Fnazier	8/9/11 1425
	OCT 17 2011 1310	MA White CHPRC	OCT 17 2011 1310

SPECIAL INSTRUCTIONS
** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-139D	PAGE 1 OF 1
COLLECTOR FM HALL CHPRC	COMPANY CONTACT LUKE, SN	TELEPHONE NO. 372-1667	PROJECT COORDINATOR LUKE, SN	PRICE CODE C01	DATA TURNAROUND
SAMPLING LOCATION Area AA Stockpile #5A Sample 1	PROJECT DESIGNATION Area AA In-Process Sampling - Soil		SAF NO. F11-096	AIR QUALITY ☐	12 Days / 12 Days
ICE CHEST NO. GWS-183	FIELD LOGBOOK NO. HNF-N-507-2.2	ACTUAL SAMPLE DEPTH 0-1'	COA 302682ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A 7953 0635 2652		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FNX1	SOIL	8-9-11	0917	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM MA White CHPRC	DATE/TIME OCT 17 2011 1430	RECEIVED BY/STORED IN SSL-1	DATE/TIME OCT 17 2011 1430
RELINQUISHED BY/REMOVED FROM SSL #1 10-18-11	DATE/TIME 0800	RECEIVED BY/STORED IN RG Patterson CHPRC	DATE/TIME OCT 18 2011 1500
RELINQUISHED BY/REMOVED FROM CHPRC	DATE/TIME OCT 18 2011 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 10/19/11 0935
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 CACN for all analytical work at WSCF laboratory is 402581ES20.** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
*See COC F11-096-139

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-139	PAGE 1 OF 1
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 1	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23.	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX1 8	SOIL	8/9/11	0917	✓	✓

Shipped Nov 10 2011

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Frazier	DATE/TIME: 8/9/11 1425
RELINQUISHED BY/REMOVED FROM:	DATE/TIME: OCT 17 2011 1310	RECEIVED BY/STORED IN: MA White, CHPRC	DATE/TIME: OCT 17 2011 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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-100D	PAGE 1 OF 1
COLLECTOR: FM HALL CH2MHILL	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Zone 1 Sample 26	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: GWS-783	FIELD LOGBOOK NO.: ~~HNF-N-507-~~ 22	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A 7953 0635 2652		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FK07	SOIL	JUL 18 2011	1218	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	OCT 17 2011 1430	SSU- 1	OCT 17 2011 1430
SSU #1	10-18-11 1050	KC Patterson CHPRC	OCT 18 2011 1050
KC Patterson CHPRC	OCT 18 2011 1700	FEDEX	
FEDEX		NICHOLAS OWENS	10/19/11 0935

SPECIAL INSTRUCTIONS
** The CACN for all analytical work at WSCF laboratory is 402581ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

*SEE CHAIN # F11-096-100

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1159

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-096-100 | PAGE 1 OF 1

COLLECTOR FM Hall CHPRC	**COMPANY CONTACT** LUKE, SN	**TELEPHONE NO.** 372-1667	**PROJECT COORDINATOR** LUKE, SN
SAMPLING LOCATION Area AA Zone 1 Sample 26	**PROJECT DESIGNATION** Area AA In-Process Sampling - Soil		**SAF NO.** F11-096
ICE CHEST NO. NA	**FIELD LOGBOOK NO.** HNF-N-507 22	**ACTUAL SAMPLE DEPTH** Surface	**COA** 302682ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE C01 | **AIR QUALITY** ☐ | **DATA TURNAROUND** 12 Days / 12 Days | **METHOD OF SHIPMENT** GOVERNMENT VEHICLE | **ORIGINAL**

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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FK07 2	SOIL	JUL 18 2011	1218	X	X

10/19/11

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FM Hall CHPRC	JUL 18 2011 1430	Victor Bins	JUL 18 2011 1430
[illegible]	OCT 17 2011 1310	MA White CHPRC [illegible]	OCT 17 2011 1310

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 6/29/2011

A-6003-618 (REV 2)

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-081D	PAGE 1 OF 1
COLLECTOR: FM HALL	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND
SAMPLING LOCATION: Area AA Zone 1 Sample 7	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY ☐	12 Days / 12 Days
ICE CHEST NO.: GWS-183	FIELD LOGBOOK NO.: HNF-N-507-22	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A 79530035 2652		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FJX8	SOIL	7/18/11	1228	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: OCT 17 2011 / 1430	RECEIVED BY/STORED IN: SSU #1	DATE/TIME: OCT 17 2011 / 1430
RELINQUISHED BY/REMOVED FROM: SSU #1 10-18-11	DATE/TIME: / 0800	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: OCT 18 2011 / 0800
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: OCT 18 2011 / 1500	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FEDEX	DATE/TIME:	RECEIVED BY/STORED IN: NICHOLAS OWENS	DATE/TIME: 10/19/11 0935
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 CACN for all analytical work at WSCF laboratory is 402581ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

* SEE COC# F11-096-081-

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1159

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-096-081 PAGE 1 OF 1

COLLECTOR FM Hall CHPRC	**COMPANY CONTACT** LUKE, SN	**TELEPHONE NO.** 372-1667	**PROJECT COORDINATOR** LUKE, SN
SAMPLING LOCATION Area AA Zone 1 Sample 7	**PROJECT DESIGNATION** Area AA In-Process Sampling - Soil		**SAF NO.** F11-096
ICE CHEST NO. NA	**FIELD LOGBOOK NO.** HNF-N-507	**ACTUAL SAMPLE DEPTH** Surface	**COA** 302682ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE C01 **AIR QUALITY** ☐ **DATA TURNAROUND** 12 Days / 12 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

KB 10/17/11

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FJX8 4	SOIL	JUL 18 2011	1238	X	X

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FM Hall CHPRC	JUL 18 2011 1830	Victor Sanchez	JUL 18 2011 1830
	OCT 17 2011 1310	MA White CHPRC	OCT 17 2011 1310

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 6/29/2011

A-6003-618 (REV 2)

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-148D	PAGE 1 OF 1
COLLECTOR: F.M. HALL	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 10	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: GW5-183	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A 7953 0635 2652		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FNY0	SOIL	8/9/11	0850	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: OCT 17 2011 1430	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: OCT 17 2011 1430
RELINQUISHED BY/REMOVED FROM: SSU #1	DATE/TIME: 10-18-11 0800	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: OCT 18 2011 0800
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: OCT 18 2011 1500	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FEDEX	DATE/TIME:	RECEIVED BY/STORED IN: NICHOLAS OWENS	DATE/TIME: 10/19/11 0935
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 CACN for all analytical work at WSCF laboratory is 402581ES20.** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

* SEE COC # F11-096-148

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-148	PAGE 1 OF 1
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 10	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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)

112903

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

Changed per 101

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY0	SOIL	8/9/11	0850	✓	✓

CHAIN OF POSSESSION	DATE/TIME	SIGN/ PRINT NAMES	DATE/TIME
RELINQUISHED BY/REMOVED FROM: FM Hall	8/9/11 1425	RECEIVED BY/STORED IN: TA Fnazim	8/9/11 1425
RELINQUISHED BY/REMOVED FROM:	OCT 17 2011 1310	RECEIVED BY/STORED IN: CHPRC	OCT 17 2011 1310
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-082D	PAGE 1 OF 1
COLLECTOR: FM HALL	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Zone 1 Sample 8	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: GWS-183	FIELD LOGBOOK NO.: ~~HNF-N-607-~~ 20	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: N/A ~~HNF-N-607-20~~		BILL OF LADING/AIR BILL NO.: N/A 7953 0635 2652		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FJX9	SOIL	7/18/11	1230	V

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	OCT 17 2011 1430	SSU-1	OCT 17 2011 1430
SSU #1 10-18-11	1050	KC Patterson CHPRC	OCT 18 2011 1050
KC Patterson CHPRC	OCT 18 2011 1500	FEDEX	
FEDEX		Nicholas Owens	10/19/11 0935

SPECIAL INSTRUCTIONS
** The CACN for all analytical work at WSCF laboratory is 402581ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

* SEE COC# F11-096-082

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

SDG# SL1159

SL1159

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-096-082

PAGE 1 OF 1

COLLECTOR FM Hall CHPRC	**COMPANY CONTACT** LUKE, SN	**TELEPHONE NO.** 372-1667	**PROJECT COORDINATOR** LUKE, SN
SAMPLING LOCATION Area AA Zone 1 Sample 8	**PROJECT DESIGNATION** Area AA In-Process Sampling - Soil		**SAF NO.** F11-096
ICE CHEST NO. 21A	**FIELD LOGBOOK NO.** HNF-N-507-22	**ACTUAL SAMPLE DEPTH** Surface	**COA** 302682ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE C01

AIR QUALITY ☐

DATA TURNAROUND 12 Days / 12 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

KB 10/12/11

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FJX9 5	SOIL	JUL 18 2011	1236	X	X

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FM Hall CHPRC	JUL 18 2011 1430	Victor Sims	JUL 18 2011 1430
	OCT 17 2011 1310	MA White CHPRC	OCT 17 2011 1310

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 6/29/2011

A-6003-618 (REV 2)

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-080D	PAGE 1 OF 1
COLLECTOR: F.M. HALL	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Zone 1 Sample 6	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: GWS-183	FIELD LOGBOOK NO.: ~~HNF-N-507-~~ 22	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A 7953 0635 2652		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FJX7	SOIL	7/18/11	1218	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: OCT 17 2011 1430	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: OCT 17 2011 1430
RELINQUISHED BY/REMOVED FROM: SSU #1	DATE/TIME: 10-18-11 0800	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: OCT 18 2011 0800
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: OCT 18 2011 1500	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FEDEX	DATE/TIME:	RECEIVED BY/STORED IN: NICHOLAS OWENS	DATE/TIME: 10/19/11 0935
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 CACN for all analytical work at WSCF laboratory is 402581ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

*SEE COC# F11-096-080D 10/17/11

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

SL1159

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-096-080 | PAGE 1 OF 1

COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN
SAMPLING LOCATION: Area AA Zone 1 Sample 6	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096
ICE CHEST NO.: NA	FIELD LOGBOOK NO.: HNF-N-507-22	ACTUAL SAMPLE DEPTH: Surface	COA: 302682ES10
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A

PRICE CODE: C01 | AIR QUALITY: ☐ | DATA TURNAROUND: 12 Days / 12 Days | METHOD OF SHIPMENT: GOVERNMENT VEHICLE | **ORIGINAL**

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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

KB 10/17/11

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FJX7 3	SOIL	JUL 18 2011	1218	X	X

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FM Hall, CHPRC	JUL 18 2011 1430	Victor Sinz	JUL 18 2011 1430
	OCT 17 2011 1310	MA White, CHPRC	OCT 17 2011 1310

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
~~(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};~~ KB 10/17/11

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

PRINTED ON 6/29/2011

A-6003-618 (REV 2)

SL1159

SDG# SL-1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-145D	PAGE 1 OF 1
COLLECTOR: FM HALL CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND
SAMPLING LOCATION: Area AA Stockpile #5A Sample 7	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	12 Days / 12 Days
ICE CHEST NO.: GWS-183	FIELD LOGBOOK NO.: HNF-N-507-2.3	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A 7953 6435 2652		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FNX7	SOIL	8-9-11	1016	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: MA White CHPRC	DATE/TIME: OCT 17 2011 1430	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: OCT 17 2011 1430
RELINQUISHED BY/REMOVED FROM: SSU #1	DATE/TIME: 10-18-11 1080	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: OCT 18 2011 1080
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: OCT 18 2011 1500	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FEDEX	DATE/TIME:	RECEIVED BY/STORED IN: NICHOLAS DOWNS	DATE/TIME: 10/19/11 0935
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 CACN for all analytical work at WSCF laboratory is 402581ES20.** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
* See COC F11-096-145

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-145	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND
SAMPLING LOCATION: Area AA Stockpile #5A Sample 7	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY ☐	12 Days / 12 Days
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX7 14	SOIL	8/9/11	1016	✓	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FM Hall CHPRC	8/9/11 1425	JA FRAZIER	8/9/11 1425
	OCT 17 2011 1310	MA White CHPRC	OCT 17 2011 1310

SPECIAL INSTRUCTIONS
** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-154D	PAGE 1 OF 1
COLLECTOR: FM HALL	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5B Sample 6	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: GW5-183	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A 7953 0635 2652		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FNY6	SOIL	8/9/11	1130	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	OCT 17 2011 1430	SSU- 1	OCT 17 2011 1430
SSU #1	10-18-11 0800	KC Patterson CHPRC	OCT 18 2011 0800
KC Patterson CHPRC	OCT 18 2011 1500	FEDEX	
FEDEX		NICHOLAS OWENS	10/19/11 0935

SPECIAL INSTRUCTIONS
** The CACN for all analytical work at WSCF laboratory is 402581ES20.** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

* SEE COC# F11-096-154

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-154	PAGE 1 OF 1
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5B Sample 6	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

Shipped 10/17/11

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY6 7	SOIL	8/9/11	1130	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Frazier	DATE/TIME: 8/9/11 1425
RELINQUISHED BY/REMOVED FROM: OCT 17 2011	DATE/TIME: 1310	RECEIVED BY/STORED IN: MA White, CHPRC OCT 17 2011	DATE/TIME: 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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-141D	PAGE 1 OF 1
COLLECTOR F M HALL CHPRC	COMPANY CONTACT LUKE, SN	TELEPHONE NO. 372-1667	PROJECT COORDINATOR LUKE, SN	PRICE CODE C01	DATA TURNAROUND
SAMPLING LOCATION Area AA Stockpile #5A Sample 3	PROJECT DESIGNATION Area AA In-Process Sampling - Soil		SAF NO. F11-096	AIR QUALITY ☐	12 Days / 12 Days
ICE CHEST NO. GWS-183	FIELD LOGBOOK NO. HNF-N-507-2-3	ACTUAL SAMPLE DEPTH 0-1'	COA 302682ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A 7953 0635 2652		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FNX3	SOIL			

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM MA White CHPRC	DATE/TIME OCT 17 2011 1430	RECEIVED BY/STORED IN SSL-1	DATE/TIME OCT 17 2011 1430
RELINQUISHED BY/REMOVED FROM SS ✓ #1	DATE/TIME 10-18-11 0800	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME OCT 18 2011 0800
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME OCT 18 2011 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS JOHNS	DATE/TIME 10/19/11 0935
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 CACN for all analytical work at WSCF laboratory is 402581ES20.** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

*See COC F11-096-141

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-141	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND
SAMPLING LOCATION: Area AA Stockpile #5A Sample 3	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	12 Days / 12 Days
ICE CHEST NO.: SMC-009	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

Shipped Here

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX3 1D	SOIL	8/9/11	0935	✓	✓

CHAIN OF POSSESSION	DATE/TIME	SIGN/ PRINT NAMES: RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	8/9/11 1425	TA Pinazian	8/9/11 1425
RELINQUISHED BY/REMOVED FROM:	OCT 17 2011 1310	MA White CHPRC	OCT 17 2011 1310
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	

SPECIAL INSTRUCTIONS
** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-085D	PAGE 1 OF 1
COLLECTOR: Fm HALL CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Zone 1 Sample 11	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: GWS-183	FIELD LOGBOOK NO.: ~~HNF-N-507-~~ 2-2	ACTUAL SAMPLE DEPTH: Surface	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A 7953 0635 2652		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FJY2	SOIL	Jul 18 2011	1310	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: ~~MA White~~ CHPRC Mawlk	DATE/TIME: OCT 17 2011 1430	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: OCT 17 2011 1430
RELINQUISHED BY/REMOVED FROM: SSU #1 10-18-11	DATE/TIME: 1080	RECEIVED BY/STORED IN: ~~SSU-1~~ ~~KC Patterson~~	DATE/TIME: OCT 18 2011 1080
RELINQUISHED BY/REMOVED FROM:	DATE/TIME: OCT 18 2011 1500	RECEIVED BY/STORED IN: ~~CHPRC~~ FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: ~~KC Patterson~~ CHPRC FEDEX	DATE/TIME:	RECEIVED BY/STORED IN: NICHOLAS OWENS	DATE/TIME: 10/19/11 0935
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 CACN for all analytical work at WSCF laboratory is 402581ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
*See Chain F11-096-085

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1159

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-096-085

PAGE 1 OF 1

COLLECTOR: FM Hall CHPRC

SAMPLING LOCATION: Area AA Zone 1 Sample 11

ICE CHEST NO.: NA

SHIPPED TO: Waste Sampling & Characterization

COMPANY CONTACT: LUKE, SN

TELEPHONE NO.: 372-1667

PROJECT DESIGNATION: Area AA In-Process Sampling - Soil

FIELD LOGBOOK NO.: HNF-N-507-22

ACTUAL SAMPLE DEPTH: Surface

OFFSITE PROPERTY NO.: N/A

PROJECT COORDINATOR: LUKE, SN

SAF NO.: F11-096

PRICE CODE: C01

AIR QUALITY: ☐

DATA TURNAROUND: 12 Days / 12 Days

COA: 302682ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

BILL OF LADING/AIR BILL NO.: N/A

ORIGINAL

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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FJY2 8	SOIL	JUL 18 2011	1310	X	X

10/12/11

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FM Hall CHPRC	JUL 18 2011 1430	[illegible]	JUL 18 2011 1430
[illegible]	OCT 17 2011 1310	MA White CHPRC	OCT 17 2011 1310

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

LABORATORY SECTION — RECEIVED BY — TITLE — DATE/TIME

FINAL SAMPLE DISPOSITION — DISPOSAL METHOD — DISPOSED BY — DATE/TIME

PRINTED ON 6/29/2011

A-6003-618 (REV 2)

SL1159

SDG# SL-1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-084D	PAGE 1 OF 1
COLLECTOR FM HALL CHPRC	COMPANY CONTACT LUKE, SN	TELEPHONE NO. 372-1667	PROJECT COORDINATOR LUKE, SN	PRICE CODE C01	DATA TURNAROUND
SAMPLING LOCATION Area AA Zone 1 Sample 10	PROJECT DESIGNATION Area AA In-Process Sampling - Soil		SAF NO. F11-096	AIR QUALITY ☐	12 Days / 12 Days
ICE CHEST NO. GWS-183	FIELD LOGBOOK NO. HNF-N-507-2.3	ACTUAL SAMPLE DEPTH Surface	COA 302682ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A 7953 0635 2452		

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	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	120mL
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FJY1	SOIL	Jul 18-2011	1302	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM MA White CHPRC	DATE/TIME OCT 17 2011 1430	RECEIVED BY/STORED IN SSU-1	DATE/TIME OCT 17 2011 1430
RELINQUISHED BY/REMOVED FROM SSU #1 10-18-11	DATE/TIME 0800	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME OCT 18 2011 0800
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME OCT 18 2011 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 10/19/11 0935
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 CACN for all analytical work at WSCF laboratory is 402581ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

*See COC F11-096-084

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-096-084

COLLECTOR FM Hall CHPRC	**COMPANY CONTACT** LUKE, SN	**TELEPHONE NO.** 372-1667	**PROJECT COORDINATOR** LUKE, SN	**PRICE CODE** C01	**DATA TURNAROUND** 12 Days / 12 Days
SAMPLING LOCATION Area AA Zone 1 Sample 10	**PROJECT DESIGNATION** Area AA In-Process Sampling - Soil		**SAF NO.** F11-096	**AIR QUALITY** ☐	
ICE CHEST NO. NA	**FIELD LOGBOOK NO.** HNF-N-507-22	**ACTUAL SAMPLE DEPTH** Surface	**COA** 302682ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FJY1	SOIL	JUL 18 2011	1302	X	X

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FM Hall CHPRC	JUL 18 2011 1430	Victor Simon	JUL 18 2011 1430
	OCT 17 2011 1310	MA White CHPRC	OCT 17 2011 1310

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 6/29/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-083D	PAGE 1 OF 1
COLLECTOR: FM HALL CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Zone 1 Sample 9	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: GWS-183	FIELD LOGBOOK NO.: HNF-N-507-2.3	ACTUAL SAMPLE DEPTH: Surface	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A 7953 0635 2658		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

See

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FJY0	SOIL	Jul 18 2011	1254	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: MAWhite	DATE/TIME: OCT 17 2011 1430	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: OCT 17 2011 1430
RELINQUISHED BY/REMOVED FROM: SSU #1 10-18-11	DATE/TIME: 1050	RECEIVED BY/STORED IN: KC Patterson	DATE/TIME: OCT 18 2011 1050
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: OCT 18 2011 1500	RECEIVED BY/STORED IN: CHPRC FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FEDEX	DATE/TIME:	RECEIVED BY/STORED IN: NICHOLAS OWENS	DATE/TIME: 10/19/11 0935
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 CACN for all analytical work at WSCF laboratory is 402581ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

* See Chain F11-096-083

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-096-083

COLLECTOR FM Hall CHPRC	**COMPANY CONTACT** LUKE, SN	**TELEPHONE NO.** 372-1667	**PROJECT COORDINATOR** LUKE, SN
PRICE CODE C01	**DATA TURNAROUND** 12 Days / 12 Days	**AIR QUALITY** ☐	**SAF NO.** F11-096
SAMPLING LOCATION Area AA Zone 1 Sample 9	**PROJECT DESIGNATION** Area AA In-Process Sampling - Soil		
ICE CHEST NO. AA	**FIELD LOGBOOK NO.** HNF-N-507	**ACTUAL SAMPLE DEPTH** Surface	**COA** 302682ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FJY0 6	SOIL	JUL 18 2011	1254	X	X

10/17/11

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FM Hall CHPRC	JUL 18 2011 1430	Victor Burns	JUL 18 2011 1430
	OCT 17 2011 1310	MA White CHPRC	OCT 17 2011 1310

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 6/29/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F11-096-149D	PAGE 1 OF 1

COLLECTOR: FM. HALL	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01 / AIR QUALITY: ☐ / DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5B Sample 1	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	
ICE CHEST NO.: GW3-183	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE / ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A 7953 0635 2652	

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FNY1	SOIL	8/9/11	1312	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: OCT 17 2011 1430	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: OCT 17 2011 1430
RELINQUISHED BY/REMOVED FROM: SSU #1 10-18-11	DATE/TIME: 0811	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: OCT 18 2011 0811
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: OCT 18 2011 1500	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FEDEX	DATE/TIME:	RECEIVED BY/STORED IN: NICHOLAS OWENS	DATE/TIME: 10/19/11 0935
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 CACN for all analytical work at WSCF laboratory is 402581ES20.** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

*SEE COC # F11-096-149

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-149	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND
SAMPLING LOCATION: Area AA Stockpile #5B Sample 1	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY ☐	12 Days / 12 Days
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

Shipped MSD 10/17/11

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY1 2	SOIL	8/9/11	1312	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Fmazin	DATE/TIME: 8/9/11 1425
RELINQUISHED BY/REMOVED FROM:	DATE/TIME: OCT 17 2011 1310	RECEIVED BY/STORED IN: MA White CHPRC	DATE/TIME: OCT 17 2011 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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

48 of 62

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

SL1159

SDG# SL-1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-150D	PAGE 1 OF 1
COLLECTOR: FM HALL	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5B Sample 2	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: GWS-183	FIELD LOGBOOK NO.: ~~HNF-N-601-~~ 23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A 7953 0635 2652		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FNY2	SOIL	8/9/11	1240	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: OCT 17 2011 1430	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: OCT 17 2011 1430
RELINQUISHED BY/REMOVED FROM: SSU #1	DATE/TIME: 10-18-11 0800	RECEIVED BY/STORED IN: KC Patterson CHPRG	DATE/TIME: OCT 18 2011 0800
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRG	DATE/TIME: OCT 18 2011 1500	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FEDEX	DATE/TIME:	RECEIVED BY/STORED IN: NICHOLAS OWENS	DATE/TIME: 10/19/11 0935
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 CACN for all analytical work at WSCF laboratory is 402581ES20.** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

* SEE COC# F11-096-150

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-150	PAGE 1 OF 1
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5B Sample 2	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

Shipped Via 10/19/11

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY2 3	SOIL	8/9/11	1240	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TAFNAZI	DATE/TIME: 8/9/11 1425
RELINQUISHED BY/REMOVED FROM:	DATE/TIME: OCT 17 2011 1310	RECEIVED BY/STORED IN: MA White	DATE/TIME: OCT 17 2011 1310
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN: CHPRC	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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1159

SDG# SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-151D	PAGE 1 OF 1
COLLECTOR: FM HALL	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5B Sample 3	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: GWS-183	FIELD LOGBOOK NO.: ~~HNF-N-507-~~ 23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A 7953 0635 2652		

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	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	ICP Metals - 6020 (Add-on) {Selenium};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2FNY3	SOIL	8/9/11	1210	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	OCT 17 2011 / 1430	SSU-1	OCT 17 2011 / 1430
SSU #1	10-18-11 / 0800	KC Patterson CHPRC	OCT 18 2011 / 0800
KC Patterson CHPRC	OCT 18 2011 / 1500	FEDEX	
FedEx		NICHOLAS OWENS	10/19/11 0935

SPECIAL INSTRUCTIONS
** The CACN for all analytical work at WSCF laboratory is 402581ES20.** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

*SEE COC# F11-096-151

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

PRINTED ON 10/17/2011

A-6003-618 (REV 2)

SL1159

SDG#SL1159

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-151	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND
SAMPLING LOCATION: Area AA Stockpile #5B Sample 3	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	12 Days / 12 Days
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23.	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

Dilution 10

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY3 4	SOIL	8/9/11	1210	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Fuzzim	DATE/TIME: 8/9/11 1425
RELINQUISHED BY/REMOVED FROM:	DATE/TIME: OCT 17 2011 1310	RECEIVED BY/STORED IN: MA White CHPRC	DATE/TIME: OCT 17 2011 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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

Appendix 5

Data Validation Supporting Documentation

VALIDATION LEVEL:	A	B	C	D	E
PROJECT: 100K Area AA			DATA PACKAGE: VSR12-004		
VALIDATOR: Eyda Hergenreder		LAB: WSCF, TestAmerica		DATE: 11-10-2011	
			SDG: WSCF112903, SL1159		
ANALYSES PERFORMED					
SW-846/ICP	SW-846/GFAA	SW-846/Hg		EPA 200.8 X	

SAMPLES/MATRIX Soil samples

SDG WSCF112903: B2FNY0, B2FNY1, B2FNY2, B2FNY3, B2FNY4, B2FNY5, B2FNY6, B2FNX1, B2FNX2, B2FNX3, B2FNX4, B2FNX5, B2FNX6, B2FNX7, B2FNX8, B2FNX9

SDG SL1159: B2FNX2, B2FNY4, B2FNY5, B2FNX5, B2FNX6, B2FNX8, B2FNX9, B2FNX4, B2FNX1, B2FK07, B2FJX8, B2FNY0, B2FJX9, B2FJX7, B2FNX7, B2FNY6, B2FNX3, B2FJY2, B2FJY1, B2FJY0, B2FNY1, B2FNY2, B2FNY3

1. DATA PACKAGE COMPLETENESS AND CASE NARRATIVE

Technical verification documentation present? ..... Yes (No) N/A

Comments: None

2. INSTRUMENT PERFORMANCE AND CALIBRATIONS (Levels D and E)

Initial calibrations performed on all instruments? ..... Yes No N/A

Initial calibrations acceptable? ..... Yes No N/A

ICP interference checks acceptable? ..... Yes No N/A

ICV and CCV checks performed on all instruments? ..... Yes No N/A

ICV and CCV checks acceptable? ..... Yes No N/A

Standards traceable? ..... Yes No N/A

Standards expired? ..... Yes No N/A

Calculation check acceptable? ..... Yes No N/A

Comments:

3. BLANKS (Levels B, C, D, and E)

ICB and CCB checks performed for all applicable analyses? (Levels D, E) ..... Yes No N/A

ICB and CCB results acceptable? (Levels D, E) ..... Yes No N/A

Laboratory blanks analyzed? ..... Yes No N/A

Laboratory blank results acceptable? ..... Yes No N/A

Field blanks analyzed? (Levels C, D, E) ..... Yes No N/A

Field blank results acceptable? (Levels C, D, E) ..... Yes No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No N/A

Comments:

WSCF112903: MB Be 0.0525 mg/kg; Se 0.483 mg/kg

EB sample B2FNY0: Mn 0.273 mg/kg; Be 0.101 mg/kg; B 1.47 mg/kg; Cr 3.87 mg/kg; Cu 1.36 mg/kg; V 0.940 mg/kg; Pb 0.141 mg/kg; Mo 0.190 mg/kg; Sr 0.304 mg/kg; U 0.249 mg/kg; As 0.638 mg/kg; Se 0.600 mg/kg

EB sample B2FNY6: Mn 0.306 mg/kg; Ba 0.236 mg/kg; B 0.933 mg/kg; Pb 0.097 mg/kg; Sr 0.136 mg/kg; Se 0.539 mg/kg

4. ACCURACY (Levels C, D, and E)

MS/MSD samples analyzed? ..... Yes No N/A

MS/MSD results acceptable? ..... Yes No N/A

MS/MSD standards NIST traceable? (Levels D, E) ..... Yes No N/A

MS/MSD standards expired? (Levels D, E) ..... Yes No N/A

LCS/BSS samples analyzed? ..... Yes No N/A

LCS/BSS results acceptable? ..... Yes No N/A

Standards traceable? (Levels D, E) ..... Yes No N/A

Standards expired? (Levels D, E) ..... Yes No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No N/A

Performance audit sample(s) analyzed? ..... Yes No N/A

Performance audit sample results acceptable? ..... Yes No N/A

Comments: None

5. PRECISION (Levels C, D, and E)

Duplicate RPD values acceptable?.....Yes No N/A

Duplicate results acceptable?.....Yes No N/A

MS/MSD standards NIST traceable? (Levels D, E)..... Yes No N/A

MS/MSD standards expired? (Levels D, E) ..... Yes No N/A

Field duplicate RPD values acceptable? .....Yes No N/A

Field split RPD values acceptable? ..... Yes No N/A

Transcription/calculation errors? (Levels D, E)..... Yes No N/A

Comments: None

6. ICP QUALITY CONTROL (Levels D and E)

ICP serial dilution samples analyzed? ..... Yes No N/A

ICP serial dilution %D values acceptable? ..... Yes No N/A

ICP post digestion spike required? ..... Yes No N/A

ICP post digestion spike values acceptable? ..... Yes No N/A

Standards traceable? ..... Yes No N/A

Standards expired? ..... Yes No N/A

Transcription/calculation errors? ..... Yes No N/A

Comments:

7. HOLDING TIMES (all levels)

Samples properly preserved? ..... Yes No N/A

Sample holding times acceptable? ..... Yes No N/A

Comments: None

8. RESULT QUANTITATION AND DETECTION LIMITS (all levels)

Results reported for all requested analyses?.....Yes No N/A

Results supported in the raw data? (Levels D, E) ..... Yes No N/A

Samples properly prepared? (Levels D, E)..... Yes No N/A

Detection limits meet RDL?.....Yes No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No N/A

Comments: None

Comments (attach additional sheets as necessary):

Appendix 6

Additional Documentation Requested By Client

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

QC Batch 188091 **Test** ICP-2008 MS All possible metal
Associated Samples 112903001, 112903002, 112903003, 112903004, 112903005, 112903006, 112903007, 112903008, 112903009, 112903010, 112903011, 112903012, 112903013, 112903014, 112903015, 112903016

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS			**QC Sample #62659**							
Manganese	7439-96-5		291	mg/kg	101.8	75 - 121				08/12/11
Nickel	7440-02-0		61.9	mg/kg	104.7	74 - 122				08/12/11
Silver	7440-22-4		36.3	mg/kg	105.5	83 - 127				08/12/11
Antimony	7440-36-0		172	mg/kg	140.8	62 - 205				08/12/11
Beryllium	7440-41-7		61.4	mg/kg	98.3	77 - 120				08/12/11
Cadmium	7440-43-9		66.3	mg/kg	107.3	76 - 129				08/12/11
Chromium	7440-47-3		72.3	mg/kg	101.4	68 - 119				08/12/11
Cobalt	7440-48-4		107	mg/kg	103.7	77 - 122				08/12/11
Copper	7440-50-8		81.0	mg/kg	99.8	67 - 120				08/12/11
Vanadium	7440-62-2		60.0	mg/kg	101.4	67 - 122				08/12/11
Zinc	7440-66-6		144	mg/kg	101.9	73 - 131				08/12/11
Lead	7439-92-1		95.4	mg/kg	103.3	79 - 124				08/12/11
Mercury	7439-97-6		4.11	mg/kg	109	69 - 124				08/12/11
Molybdenum	7439-98-7		48.9	mg/kg	114.8	80 - 125				08/12/11
Strontium	7440-24-6		70.7	mg/kg	97.7	78 - 119				08/12/11
Tin	7440-31-5		114	mg/kg	106.8	84 - 130				08/12/11
Uranium	7440-61-1		367	mg/kg	91.7	86 - 113				08/12/11
Arsenic	7440-38-2		97.5	mg/kg	105.3	79 - 125				08/12/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Selenium	7782-49-2		97.0	mg/kg	108.4	82 - 133				08/12/11
MS			**QC Sample #62660**							
			Original	**112903001**						
Manganese	7439-96-5	0.273	101	mg/kg	103.2	70 - 130				08/12/11
Nickel	7440-02-0	<0.20	101	mg/kg	103.5	70 - 130				08/12/11
Silver	7440-22-4	<0.098	99.4	mg/kg	101.6	70 - 130				08/12/11
Antimony	7440-36-0	<0.29	101	mg/kg	103.1	70 - 130				08/12/11
Beryllium	7440-41-7	0.101	98.0	mg/kg	100.1	70 - 130				08/12/11
Cadmium	7440-43-9	<0.098	99.5	mg/kg	101.7	70 - 130				08/12/11
Chromium	7440-47-3	3.87	97.8	mg/kg	99.9	70 - 130				08/12/11
Cobalt	7440-48-4	<0.098	101	mg/kg	102.9	70 - 130				08/12/11
Copper	7440-50-8	1.36	99.7	mg/kg	101.9	70 - 130				08/12/11
Vanadium	7440-62-2	0.940	100	mg/kg	102.2	70 - 130				08/12/11
Zinc	7440-66-6	<0.78	98.7	mg/kg	100.9	70 - 130				08/12/11
Lead	7439-92-1	0.141	100	mg/kg	102.4	70 - 130				08/12/11
Mercury	7439-97-6	<0.049	2.02	mg/kg	103	70 - 130				08/12/11
Molybdenum	7439-98-7	0.190	99.5	mg/kg	101.7	70 - 130				08/12/11
Strontium	7440-24-6	0.304	99.5	mg/kg	101.7	70 - 130				08/12/11
Tin	7440-31-5	<0.098	101	mg/kg	103.7	70 - 130				08/12/11
Uranium	7440-61-1	0.249	96.9	mg/kg	99	70 - 130				08/12/11
Arsenic	7440-38-2	0.638	99.4	mg/kg	101.5	70 - 130				08/12/11
Selenium	7782-49-2	0.600	101	mg/kg	102.8	70 - 130				08/12/11
MSD			**QC Sample #62661**							
			Original	**112903001**					**Paired**	**62660**
Manganese	7439-96-5	0.273	101	mg/kg	103.1	70 - 130	0.10	30		08/12/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Nickel	7440-02-0	<0.20	101	mg/kg	103	70 - 130	0.50	30		08/12/11
Silver	7440-22-4	<0.098	102	mg/kg	104.4	70 - 130	2.70	30		08/12/11
Antimony	7440-36-0	<0.29	101	mg/kg	103.5	70 - 130	0.40	30		08/12/11
Beryllium	7440-41-7	0.101	99.9	mg/kg	102	70 - 130	1.90	30		08/12/11
Cadmium	7440-43-9	<0.098	101	mg/kg	103.5	70 - 130	1.80	30		08/12/11
Chromium	7440-47-3	3.87	98.0	mg/kg	100	70 - 130	0.10	30		08/12/11
Cobalt	7440-48-4	<0.098	101	mg/kg	103.1	70 - 130	0.20	30		08/12/11
Copper	7440-50-8	1.36	100	mg/kg	102.2	70 - 130	0.30	30		08/12/11
Vanadium	7440-62-2	0.940	100	mg/kg	102.1	70 - 130	0.10	30		08/12/11
Zinc	7440-66-6	<0.78	100	mg/kg	102.4	70 - 130	1.50	30		08/12/11
Lead	7439-92-1	0.141	100	mg/kg	102.5	70 - 130	0.10	30		08/12/11
Mercury	7439-97-6	<0.049	2.12	mg/kg	108	70 - 130	4.70	30		08/12/11
Molybdenum	7439-98-7	0.190	100	mg/kg	102.3	70 - 130	0.60	30		08/12/11
Strontium	7440-24-6	0.304	102	mg/kg	104.1	70 - 130	2.30	30		08/12/11
Tin	7440-31-5	<0.098	102	mg/kg	103.9	70 - 130	0.20	30		08/12/11
Uranium	7440-61-1	0.249	97.5	mg/kg	99.6	70 - 130	0.60	30		08/12/11
Arsenic	7440-38-2	0.638	101	mg/kg	103.6	70 - 130	2.00	30		08/12/11
Selenium	7782-49-2	0.600	102	mg/kg	104.6	70 - 130	1.70	30		08/12/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

QC Batch 188091 **Test** ICP-2008 MS All possible metal
Associated Samples 112903001, 112903002, 112903003, 112903004, 112903005, 112903006, 112903007, 112903008, 112903009, 112903010, 112903011, 112903012, 112903013, 112903014, 112903015, 112903016

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #62658**						
Manganese	7439-96-5		<0.10	ug/L				U	08/12/11
Nickel	7440-02-0		<0.20	ug/L				U	08/12/11
Silver	7440-22-4		<0.050	ug/L				U	08/12/11
Antimony	7440-36-0		<0.050	ug/L				U	08/12/11
Barium	7440-39-3		<0.20	ug/L				U	08/12/11
Beryllium	7440-41-7		0.0525	ug/L				B	08/12/11
Boron	7440-42-8		<0.50	ug/L				U	08/12/11
Cadmium	7440-43-9		<0.050	ug/L				U	08/12/11
Chromium	7440-47-3		<0.10	ug/L				U	08/12/11
Cobalt	7440-48-4		<0.10	ug/L				U	08/12/11
Copper	7440-50-8		<0.10	ug/L				U	08/12/11
Vanadium	7440-62-2		<0.20	ug/L				U	08/12/11
Zinc	7440-66-6		<0.80	ug/L				U	08/12/11
Lead	7439-92-1		<0.10	ug/L				U	08/12/11
Mercury	7439-97-6		<0.030	ug/L				U	08/12/11
Molybdenum	7439-98-7		<0.10	ug/L				U	08/12/11
Strontium	7440-24-6		<0.10	ug/L				U	08/12/11
Tin	7440-31-5		<0.10	ug/L				U	08/12/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Uranium	7440-61-1		<0.10	ug/L					U	08/12/11
Arsenic	7440-38-2		<0.40	ug/L					U	08/12/11
Selenium	7782-49-2		0.483	ug/L					B	08/12/11
LCS			**QC Sample #62659**							
Barium	7440-39-3		175	mg/kg	103.6	78 - 118				08/12/11
Boron	7440-42-8		112	mg/kg	106	64 - 136				08/12/11
MS			**QC Sample #62660**							
			Original 112903001							
Barium	7440-39-3	<0.20	100	mg/kg	102.4	70 - 130				08/12/11
Boron	7440-42-8	1.47	97.9	mg/kg	100	70 - 130				08/12/11
MSD			**QC Sample #62661**							
			Original 112903001					**Paired**	**62660**	
Barium	7440-39-3	<0.20	102	mg/kg	104.5	70 - 130	2.00	30		08/12/11
Boron	7440-42-8	1.47	97.6	mg/kg	99.7	70 - 130	0.30	30		08/12/11

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: SL1159 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F1J200000-028 Prep Batch #...: 1293028						
Selenium	ND	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNA7K1AA
		Dilution Factor: 1				
MB Lot-Sample #: F1J200000-029 Prep Batch #...: 1293029						
Selenium	ND	0.50	mg/kg	SW846 6020	10/20-10/21/11	MNA7M1AA
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: SL1159 Matrix.....: SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F1J200000-028 Prep Batch #...: 1293028							
Selenium	207	231	mg/kg	112	SW846 6020	10/20-10/21/11	MNA7K1AC
			Dilution Factor: 2.5				
LCS Lot-Sample#: F1J200000-029 Prep Batch #...: 1293029							
Selenium	207	237	mg/kg	115	SW846 6020	10/20-10/21/11	MNA7M1AC
			Dilution Factor: 2.5				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: SL1159 Matrix.....: SOLID
Date Sampled...: 08/09/11 Date Received..: 10/19/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: F1J190432-001 Prep Batch #...: 1293028									
% Moisture.....: 1.1									
Selenium									
	2.5	100	101	mg/kg	98		SW846 6020	10/20-10/21/11	MNAFC1A4
	2.5	100	102	mg/kg	99	1.2	SW846 6020	10/20-10/21/11	MNAFC1A5

Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: SL1159 **Matrix.....:** SOLID
Date Sampled...: 07/18/11 **Date Received..:** 10/19/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: F1J190432-013 **Prep Batch #...:** 1293029									
								% Moisture.....: 1.2	
Selenium									
	2.2	100	93.4	mg/kg	91		SW846 6020	10/20-10/21/11	MNAGP1AF
	2.2	100	95.7	mg/kg	93	2.5	SW846 6020	10/20-10/21/11	MNAGP1AG

Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Date: 29 November 2011
To: CH2M Hill (technical representative)
From: Analytical Quality Associates, Inc.
Project: 100K Area AA
Subject: General Chemistry - Sample Data Group (SDG) WSCF112903

INTRODUCTION

This memorandum presents the results of data validation for SDG WSCF112903 prepared by WSCF Analytical Laboratories. A list of samples validated along with the analytical methods is provided in the following table.

Sample ID	Sample Date	Media	Validation Level	Analytical Methods
B2FNY0	08/09/11	Soil	C	300.0 & 7196A (Cr VI)
B2FNY1	08/09/11	Soil	C	300.0 & 7196A (Cr VI)
B2FNY2	08/09/11	Soil	C	300.0 & 7196A (Cr VI)
B2FNY3	08/09/11	Soil	C	300.0 & 7196A (Cr VI)
B2FNY4	08/09/11	Soil	C	300.0 & 7196A (Cr VI)
B2FNY5	08/09/11	Soil	C	300.0 & 7196A (Cr VI)
B2FNY6	08/09/11	Soil	C	300.0 & 7196A (Cr VI)
B2FNX1	08/09/11	Soil	C	300.0 & 7196A (Cr VI)
B2FNX2	08/09/11	Soil	C	300.0 & 7196A (Cr VI)
B2FNX3	08/09/11	Soil	C	300.0 & 7196A (Cr VI)
B2FNX4	08/09/11	Soil	C	300.0 & 7196A (Cr VI)
B2FNX5	08/09/11	Soil	C	300.0 & 7196A (Cr VI)
B2FNX6	08/09/11	Soil	C	300.0 & 7196A (Cr VI)
B2FNX7	08/09/11	Soil	C	300.0 & 7196A (Cr VI)
B2FNX8	08/09/11	Soil	C	300.0 & 7196A (Cr VI)
B2FNX9	08/09/11	Soil	C	300.0 & 7196A (Cr VI)

Data validation was conducted in accordance with the CHPRC validation statement of work and the 100 Area Remedial Action Sampling and Analysis Plan, DOE/RL-96-22, Rev. 5, Volume 1 (SAP). Appendices 1 through 6 provide the following information as indicated below:

Appendix 1. Glossary of Data Reporting Qualifiers
Appendix 2. Summary of Data Qualification
Appendix 3. Annotated Laboratory Reports
Appendix 4. Laboratory Narrative and Chain-of-Custody Documentation
Appendix 5. Data Validation Supporting Documentation
Appendix 6. Additional Documentation Requested By Client

DATA QUALITY OBJECTIVES

- **Holding Times and Sample Preservation**

Holding times are calculated from Chain-of-Custody forms to determine the validity of the results. The holding time requirements are as follows:

- All anions – extraction within 28 days of sample collection and analysis within 48 hours of extraction
- Hexavalent chromium – extraction of soils within 30 days of sample collection and analysis within 24 hours of extraction

Sample preservation requires chilling to 4 degrees Celsius.

The samples were analyzed within the prescribed holding times and properly preserved.

- **Blanks**

The blank data results are reviewed to assess the extent of contamination introduced through sampling, sample preparation, and analysis.

Laboratory Blanks

All laboratory blank results were acceptable.

Trip Blanks

No trip blanks were submitted for validation.

Field Blanks

No field blanks were submitted for validation.

Equipment Blanks

All equipment blank results were acceptable.

- **Accuracy**

Accuracy is evaluated by reviewing matrix spike sample results and laboratory control sample results. According to the SAP, the matrix spike sample accuracy limits are 70% to 130% and the laboratory control sample accuracy limits are ones specified by the DV procedure. The limits for reported analytes not listed in the SAP are specified by the DV procedure.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Samples

All MS/MSD recoveries were acceptable with the following exceptions. For both batches associated with Cr VI, the MS recoveries were < the lower acceptance limit. The Cr VI result for sample B2FNY3 was a detect and should be qualified as an estimate and flagged "J." All other

sample results were non-detects and should be qualified as an estimate and flagged "UJ." See the table in Appendix 2 for a listing of the affected samples.

Laboratory Control Samples (LCSs)

All LCS recoveries were acceptable.

- **Precision**

Precision is evaluated by reviewing MS/MSD results, laboratory duplicate sample results, field duplicate sample results, and field split sample results. These QC results provide information on the laboratory reproducibility and whether sampling activities are adequate to acquire consistent sample results. According to the SAP, the relative percent difference (RPD) limits are ±30%. The RPD limits for reported analytes not listed in the SAP are specified by the DV procedure. When duplicate RPDs exceed the limits and have associated results <5X the reporting limits with difference <2X the required detection limits no precision infraction occurred

MS/MSD Samples

All MS/MSD RPD values were acceptable.

Laboratory Duplicate Samples

All laboratory duplicate results were acceptable.

Field Duplicate Samples

All field duplicate results were acceptable.

Field Split Samples

No field splits were submitted for validation.

- **Detection Limits**

Reported MDLs are compared against the contractually required detection limits (CRDLs) to ensure that laboratory detection limits meet the required criteria.

All reported sample MDLs with associated non-detected sample results were below the CRDLs.

CRDLs for fluoride, chloride, nitrate-N and nitrite-N were not provided in the SAP.

- **Completeness**

SDG WSCF112903 was submitted for validation and verified for completeness. Completeness is based on the percentage of data determined to be valid (i.e., not rejected). The completion percentage was 100%.

MAJOR DEFICIENCIES

None found.

MINOR DEFICIENCIES

Minor deficiencies leading to qualification of hexavalent chromium sample results as estimates were due matrix spike recovery infractions. See the table in Appendix 2 for a listing of all affected sample results.

REFERENCES

GRP-GD-003, Rev. 0, Change 0, *Data Validation for Chemical Analyses*, August 2010.

DOE/RL-96-22, Rev. 5, *100 Area Remedial Action Sampling and Analysis Plan*, September 2009.

Appendix 1

Glossary of Data Reporting Qualifiers

Qualifiers that may be applied by data validators in compliance with the CHPRC statement of work are as follows:

- **U** — The constituent was analyzed for, but was not detected. The data should be considered usable for decision-making purposes.

- **UJ** — The constituent was analyzed for and was not detected. Due to a quality control deficiency identified during data validation the value reported may not accurately reflect the RL. The data should be considered usable for decision-making purposes.

- **J** — Indicates the constituent was analyzed for and detected. The associated value is estimated due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **J+** — Indicates the constituent was analyzed for and detected. The associated value is estimated with a suspected positive bias due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **J-** — Indicates the constituent was analyzed for and detected. The associated value is estimated with a suspected negative bias due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **N** — The analysis indicates the presence of an analyte that has been tentatively identified.

- **NJ** — The analysis indicates the presence of an analyte that has been tentatively identified and the associated numerical value represents its approximate concentration.

- **NJ+** — The analysis indicates the presence of an analyte that has been tentatively identified. The associated value is estimated with a suspected positive bias due to a quality control deficiency identified during data validation.

- **NJ-** — The analysis indicates the presence of an analyte that has been tentatively identified. The associated value is estimated with a suspected negative bias due to a quality control deficiency identified during data validation.

- **UR** — Indicates the constituent was analyzed for and not detected; however, due to an identified quality control deficiency the data should be considered unusable for decision-making purposes.

- **R** — Indicates the constituent was analyzed for and detected; however, due to an identified quality control deficiency the data should be considered unusable for decision-making purposes.

Appendix 2

Summary of Data Qualification

General Chemistry Data Qualification Summary			
SDG: WSCF112903	Reviewer: AQA	Project: 100K Area AA	Page 1 of 1
Analyte(s)	**Qualifier**	**Samples Affected**	**Reason**
Cr(VI)	J	B2FNY3	Low matrix spike recovery
Cr(VI)	UJ	B2FNY0, B2FNY1, B2FNY2, B2FNY4, B2FNY5, B2FNY6, B2FNX1, B2FNX2, B2FNX3, B2FNX4, B2FNX5, B2FNX6, B2FNX7, B2FNX8, B2FNX9	Low matrix spike recovery

Comments: None

Appendix 3

Annotated Laboratory Reports

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903001
SAF# F11-096
Sample ID B2FNY0

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	U		<3.1		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<0.99		mg/kg	1	0.99	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	U		<0.94		mg/kg	1	0.94	4.9	08/10/11
Sulfate	14808-79-8	LA-533-410	U		<3.6		mg/kg	1	3.6	52	08/10/11
Cr(VI) Prep											**08/10/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN	UJ	<0.10		ug/g	1	0.10	0.50	08/11/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	B		0.273		mg/kg	1	0.098	0.98	08/12/11
Nickel	7440-02-0	LA-505-412	U		<0.20		mg/kg	1	0.20	2.0	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.098		mg/kg	1	0.098	0.98	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.29		mg/kg	1	0.29	2.9	08/12/11
Barium	7440-39-3	LA-505-412	U		<0.20		mg/kg	1	0.20	2.0	08/12/11
Beryllium	7440-41-7	LA-505-412	BC		0.101		mg/kg	1	0.098	0.49	08/12/11
Boron	7440-42-8	LA-505-412	B		1.47		mg/kg	1	0.49	4.9	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903002
SAF# F11-096
Sample ID B2FNY1

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	B		3.81		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	B		1.21		mg/kg	1	0.96	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410	B		13.6		mg/kg	1	3.6	53	08/10/11
Cr(VI) Prep											**08/10/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN	UJ	<0.10		ug/g	1	0.10	0.50	08/11/11
ICPMS Prep											**08/11/11**
ICP-MS											
~~Manganese~~	~~7439-96-5~~	~~LA-505-412~~			~~394~~		~~mg/kg~~	~~1~~	~~0.091~~	~~0.91~~	~~08/12/11~~
Nickel	7440-02-0	LA-505-412			8.10		mg/kg	1	0.18	1.8	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.091		mg/kg	1	0.091	0.91	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.27		mg/kg	1	0.27	2.7	08/12/11
Barium	7440-39-3	LA-505-412			58.7		mg/kg	1	0.18	1.8	08/12/11
Beryllium	7440-41-7	LA-505-412	BC		0.323		mg/kg	1	0.091	0.45	08/12/11
Boron	7440-42-8	LA-505-412	B		1.73		mg/kg	1	0.45	4.5	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903003
SAF# F11-096
Sample ID B2FNY2

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	B		8.16		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	B		2.92		mg/kg	1	0.95	4.9	08/10/11
Sulfate	14808-79-8	LA-533-410	B		24.2		mg/kg	1	3.6	52	08/10/11
Cr(VI) Prep											**08/10/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN	UJ	<0.10		ug/g	1	0.10	0.50	08/11/11
ICPMS Prep											**08/11/11**
ICP-MS											
~~Manganese~~	~~7439-96-5~~	~~LA-505-412~~			~~337~~		~~mg/kg~~	~~1~~	~~0.095~~	~~0.95~~	~~08/12/11~~
Nickel	7440-02-0	LA-505-412			7.94		mg/kg	1	0.19	1.9	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.095		mg/kg	1	0.095	0.95	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.28		mg/kg	1	0.28	2.8	08/12/11
Barium	7440-39-3	LA-505-412			51.9		mg/kg	1	0.19	1.9	08/12/11
Beryllium	7440-41-7	LA-505-412	BC		0.243		mg/kg	1	0.095	0.47	08/12/11
Boron	7440-42-8	LA-505-412	B		1.25		mg/kg	1	0.47	4.7	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903004
SAF# F11-096
Sample ID B2FNY3

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	B		6.33		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	B		1.65		mg/kg	1	0.95	4.9	08/10/11
Sulfate	14808-79-8	LA-533-410	B		15.7		mg/kg	1	3.6	52	08/10/11
Cr(VI) Prep											**08/10/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	BN	J	0.174		ug/g	1	0.10	0.50	08/11/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			463		mg/kg	1	0.099	0.99	08/12/11
Nickel	7440-02-0	LA-505-412			8.93		mg/kg	1	0.20	2.0	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.099		mg/kg	1	0.099	0.99	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.30		mg/kg	1	0.30	3.0	08/12/11
Barium	7440-39-3	LA-505-412			71.0		mg/kg	1	0.20	2.0	08/12/11
Beryllium	7440-41-7	LA-505-412	BC		0.352		mg/kg	1	0.099	0.49	08/12/11
Boron	7440-42-8	LA-505-412	B		1.45		mg/kg	1	0.49	4.9	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903005
SAF# F11-096
Sample ID B2FNY4

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	B		4.46		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	U		<0.95		mg/kg	1	0.95	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410	B		7.60		mg/kg	1	3.6	53	08/10/11
Cr(VI) Prep											**08/10/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN	UJ	<0.10		ug/g	1	0.10	0.50	08/11/11
ICPMS Prep											**08/11/11**
ICP-MS											
~~Manganese~~	~~7439-96-5~~	~~LA-505-412~~			~~371~~		~~mg/kg~~	~~1~~	~~0.10~~	~~1.0~~	~~08/12/11~~
Nickel	7440-02-0	LA-505-412			8.17		mg/kg	1	0.20	2.0	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.30		mg/kg	1	0.30	3.0	08/12/11
Barium	7440-39-3	LA-505-412			58.3		mg/kg	1	0.20	2.0	08/12/11
Beryllium	7440-41-7	LA-505-412	BC		0.327		mg/kg	1	0.10	0.50	08/12/11
Boron	7440-42-8	LA-505-412	B		1.93		mg/kg	1	0.50	5.0	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903006
SAF# F11-096
Sample ID B2FNY5

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	B		5.33		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	B		1.42		mg/kg	1	0.95	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410	B		14.8		mg/kg	1	3.6	52	08/10/11
Cr(VI) Prep											**08/10/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN	UJ	<0.10		ug/g	1	0.10	0.50	08/11/11
ICPMS Prep											**08/11/11**
ICP-MS											
~~Manganese~~	~~7439-96-5~~	~~LA-505-412~~			~~378~~		~~mg/kg~~	~~1~~	~~0.093~~	~~0.93~~	~~08/12/11~~
Nickel	7440-02-0	LA-505-412			8.79		mg/kg	1	0.19	1.9	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.093		mg/kg	1	0.093	0.93	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.28		mg/kg	1	0.28	2.8	08/12/11
Barium	7440-39-3	LA-505-412			62.1		mg/kg	1	0.19	1.9	08/12/11
Beryllium	7440-41-7	LA-505-412	BC		0.370		mg/kg	1	0.093	0.47	08/12/11
Boron	7440-42-8	LA-505-412	B		0.616		mg/kg	1	0.47	4.7	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903007
SAF# F11-096
Sample ID B2FNY6

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	U		<3.1		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<0.99		mg/kg	1	0.99	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	U		<0.94		mg/kg	1	0.94	4.9	08/10/11
Sulfate	14808-79-8	LA-533-410	U		<3.6		mg/kg	1	3.6	52	08/10/11
Cr(VI) Prep											**08/10/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN	UJ	<0.10		ug/g	1	0.10	0.50	08/11/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	B		0.306		mg/kg	1	0.096	0.96	08/12/11
Nickel	7440-02-0	LA-505-412	U		<0.19		mg/kg	1	0.19	1.9	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.096		mg/kg	1	0.096	0.96	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.29		mg/kg	1	0.29	2.9	08/12/11
Barium	7440-39-3	LA-505-412	B		0.236		mg/kg	1	0.19	1.9	08/12/11
Beryllium	7440-41-7	LA-505-412	U		<0.096		mg/kg	1	0.096	0.48	08/12/11
Boron	7440-42-8	LA-505-412	B		0.933		mg/kg	1	0.48	4.8	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903008
SAF# F11-096
Sample ID B2FNX1

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	B		4.14		mg/kg	1	3.1	21	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	B		1.13		mg/kg	1	0.96	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410	B		5.86		mg/kg	1	3.6	53	08/10/11
Cr(VI) Prep											**08/10/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN	UJ	<0.10		ug/g	1	0.10	0.50	08/11/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			411		mg/kg	1	0.099	0.99	08/12/11
Nickel	7440-02-0	LA-505-412			9.17		mg/kg	1	0.20	2.0	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.099		mg/kg	1	0.099	0.99	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.30		mg/kg	1	0.30	3.0	08/12/11
Barium	7440-39-3	LA-505-412			59.9		mg/kg	1	0.20	2.0	08/12/11
Beryllium	7440-41-7	LA-505-412	BC		0.300		mg/kg	1	0.099	0.50	08/12/11
Boron	7440-42-8	LA-505-412	B		1.57		mg/kg	1	0.50	5.0	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903009
SAF# F11-096
Sample ID B2FNX2

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410			20.3		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	U		<0.95		mg/kg	1	0.95	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410			139		mg/kg	1	3.6	53	08/10/11
Cr(VI) Prep											**08/10/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN	UJ	<0.10		ug/g	1	0.10	0.50	08/11/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			336		mg/kg	1	0.093	0.93	08/12/11
Nickel	7440-02-0	LA-505-412			7.56		mg/kg	1	0.19	1.9	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.093		mg/kg	1	0.093	0.93	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.28		mg/kg	1	0.28	2.8	08/12/11
Barium	7440-39-3	LA-505-412			50.8		mg/kg	1	0.19	1.9	08/12/11
Beryllium	7440-41-7	LA-505-412	BC		0.248		mg/kg	1	0.093	0.46	08/12/11
Boron	7440-42-8	LA-505-412	B		0.594		mg/kg	1	0.46	4.6	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903010
SAF# F11-096
Sample ID B2FNX3

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	U		<3.1		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	U		<0.95		mg/kg	1	0.95	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410	B		21.0		mg/kg	1	3.6	53	08/10/11
Cr(VI) Prep											**08/11/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN	UJ	<0.10		ug/g	1	0.10	0.50	08/12/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			341		mg/kg	1	0.098	0.98	08/12/11
Nickel	7440-02-0	LA-505-412			8.10		mg/kg	1	0.20	2.0	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.098		mg/kg	1	0.098	0.98	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.30		mg/kg	1	0.30	3.0	08/12/11
Barium	7440-39-3	LA-505-412			50.7		mg/kg	1	0.20	2.0	08/12/11
Beryllium	7440-41-7	LA-505-412	BC		0.340		mg/kg	1	0.098	0.49	08/12/11
Boron	7440-42-8	LA-505-412	B		0.962		mg/kg	1	0.49	4.9	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903011
SAF# F11-096
Sample ID B2FNX4

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	U		<3.1		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	U		<0.95		mg/kg	1	0.95	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410	B		8.92		mg/kg	1	3.6	53	08/10/11
Cr(VI) Prep											**08/11/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN	UJ	<0.10		ug/g	1	0.10	0.50	08/12/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			356		mg/kg	1	0.097	0.97	08/12/11
Nickel	7440-02-0	LA-505-412			8.08		mg/kg	1	0.19	1.9	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.097		mg/kg	1	0.097	0.97	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.29		mg/kg	1	0.29	2.9	08/12/11
Barium	7440-39-3	LA-505-412			52.0		mg/kg	1	0.19	1.9	08/12/11
Beryllium	7440-41-7	LA-505-412	BC		0.265		mg/kg	1	0.097	0.48	08/12/11
Boron	7440-42-8	LA-505-412	B		0.701		mg/kg	1	0.48	4.8	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903012
SAF# F11-096
Sample ID B2FNX5

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	B		3.24		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	U		<0.95		mg/kg	1	0.95	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410	B		27.8		mg/kg	1	3.6	52	08/10/11
Cr(VI) Prep											**08/11/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN	UJ	<0.10		ug/g	1	0.10	0.50	08/12/11
ICPMS Prep											**08/11/11**
ICP-MS											
~~Manganese~~	~~7439-96-5~~	~~LA-505-412~~			~~395~~		~~mg/kg~~	~~1~~	~~0.096~~	~~0.96~~	~~08/12/11~~
Nickel	7440-02-0	LA-505-412			10.6		mg/kg	1	0.19	1.9	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.096		mg/kg	1	0.096	0.96	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.29		mg/kg	1	0.29	2.9	08/12/11
Barium	7440-39-3	LA-505-412			61.0		mg/kg	1	0.19	1.9	08/12/11
Beryllium	7440-41-7	LA-505-412	C		0.502		mg/kg	1	0.096	0.48	08/12/11
~~Boron~~	~~7440-42-8~~	~~LA-505-412~~	~~B~~		~~0.655~~		~~mg/kg~~	~~1~~	~~0.48~~	~~4.8~~	~~08/12/11~~

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903013
SAF# F11-096
Sample ID B2FNX6

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	U		<3.1		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	U		<0.95		mg/kg	1	0.95	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410	B		11.3		mg/kg	1	3.6	52	08/10/11
Cr(VI) Prep											**08/11/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN	UJ	<0.10		ug/g	1	0.10	0.50	08/12/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			391		mg/kg	1	0.093	0.93	08/12/11
Nickel	7440-02-0	LA-505-412			8.09		mg/kg	1	0.19	1.9	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.093		mg/kg	1	0.093	0.93	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.28		mg/kg	1	0.28	2.8	08/12/11
Barium	7440-39-3	LA-505-412			54.4		mg/kg	1	0.19	1.9	08/12/11
Beryllium	7440-41-7	LA-505-412	BC		0.328		mg/kg	1	0.093	0.47	08/12/11
Boron	7440-42-8	LA-505-412	B		0.572		mg/kg	1	0.47	4.7	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903014
SAF# F11-096
Sample ID B2FNX7

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	B		5.36		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	B		2.68		mg/kg	1	0.95	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410	B		27.0		mg/kg	1	3.6	53	08/10/11
Cr(VI) Prep											**08/11/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN	UJ	<0.098		ug/g	1	0.098	0.49	08/12/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			402		mg/kg	1	0.096	0.96	08/12/11
Nickel	7440-02-0	LA-505-412			9.93		mg/kg	1	0.19	1.9	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.096		mg/kg	1	0.096	0.96	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.29		mg/kg	1	0.29	2.9	08/12/11
Barium	7440-39-3	LA-505-412			64.7		mg/kg	1	0.19	1.9	08/12/11
Beryllium	7440-41-7	LA-505-412	BC		0.328		mg/kg	1	0.096	0.48	08/12/11
Boron	7440-42-8	LA-505-412	B		0.642		mg/kg	1	0.48	4.8	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903015
SAF# F11-096
Sample ID B2FNX8

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	B		17.8		mg/kg	1	3.1	20	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410			6.74		mg/kg	1	0.95	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410			72.6		mg/kg	1	3.6	53	08/10/11
Cr(VI) Prep											**08/11/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN	UJ	<0.10		ug/g	1	0.10	0.51	08/12/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			341		mg/kg	1	0.091	0.91	08/12/11
Nickel	7440-02-0	LA-505-412			11.6		mg/kg	1	0.18	1.8	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.091		mg/kg	1	0.091	0.91	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.27		mg/kg	1	0.27	2.7	08/12/11
Barium	7440-39-3	LA-505-412			58.4		mg/kg	1	0.18	1.8	08/12/11
Beryllium	7440-41-7	LA-505-412	BC		0.354		mg/kg	1	0.091	0.46	08/12/11
Boron	7440-42-8	LA-505-412	B		0.889		mg/kg	1	0.46	4.6	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Sample # 112903016
SAF# F11-096
Sample ID B2FNX9

Matrix SOIL
Sampled 08/09/11
Received 08/09/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**08/10/11**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.8		mg/kg	1	1.8	3.6	08/10/11
Chloride	16887-00-6	LA-533-410	B		4.10		mg/kg	1	3.1	21	08/10/11
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	4.9	08/10/11
Nitrate-N	NO3-N	LA-533-410	B		1.30		mg/kg	1	0.96	5.0	08/10/11
Sulfate	14808-79-8	LA-533-410	B		13.0		mg/kg	1	3.6	53	08/10/11
Cr(VI) Prep											**08/11/11**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	UN	UJ	<0.099		ug/g	1	0.099	0.49	08/12/11
ICPMS Prep											**08/11/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			382		mg/kg	1	0.094	0.94	08/12/11
Nickel	7440-02-0	LA-505-412			8.93		mg/kg	1	0.19	1.9	08/12/11
Silver	7440-22-4	LA-505-412	U		<0.094		mg/kg	1	0.094	0.94	08/12/11
Antimony	7440-36-0	LA-505-412	U		<0.28		mg/kg	1	0.28	2.8	08/12/11
Barium	7440-39-3	LA-505-412			57.1		mg/kg	1	0.19	1.9	08/12/11
Beryllium	7440-41-7	LA-505-412	BC		0.297		mg/kg	1	0.094	0.47	08/12/11
Boron	7440-42-8	LA-505-412	U		<0.47		mg/kg	1	0.47	4.7	08/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

Attachment 2
Narrative Rev 1
WSCF112903

Revision 1: Case Narrative Replaces the Prior Submittal in its Entirety. Case narrative was inadvertently omitted from original report.

Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, "FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER."*

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

It should be noted that the attached chain of custody was not stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving. However, based on procedure LO-090-403 form "NOTICE OF IMPROPER SAMPLE SUBMITTAL" was not submitted and was not stamped "NOT ICED". No anomaly was noted during sample receipt.

The following generic data qualifiers (i.e., B, D, U and J) may be applicable to this report, as appropriate

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wet chemical analyses), as appropriate.
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.
- **U** – Analyzed for but not detected above limiting criteria. Relative Percent Difference (RPD) values associated with an analyte qualified with a "U" are not applicable.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report* for a complete listing of approved analytical methods.

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Attachment 2
Narrative Rev 1
WSCF112903

Hexavalent Chromium – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 188092
  - Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
- Batch QC 188130
  - Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

  - Selenium and Beryllium – Detected in the Blank and evaluated. Affected sample results in this batch were "C" Flagged.
  - All other applicable QC controls are within the established limits.

We 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 data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-148	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND
SAMPLING LOCATION: Area AA Stockpile #5A Sample 10	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	12 Days / 12 Days
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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)

112903

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None	Cool-4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY0	SOIL	8/9/11	0850	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Renzin	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-096-149	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01 / DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5B Sample 1	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23.	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE / ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY1	2	SOIL	8/9/11	1312	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Pinzin	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F11-096-150	PAGE 1 OF 1

COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01 / DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5B Sample 2	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-25.	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE / ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY2 3	SOIL	8/9/11	1240	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TAFNAZIEN Jawsky	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011 A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-151	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5B Sample 3	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23.	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY3 4	SOIL	8/9/11	1210	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: JA Fnazim	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Artimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-152	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5B Sample 4	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY4 5	SOIL	8/9/11	1155	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Fuzzim	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-153	PAGE 1 OF 1
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5B Sample 5	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY5 10	SOIL	8/9/11	1312	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Erazian	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-154	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5B Sample 6	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNY6 7	SOIL	8/9/11	1130	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Frazin	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-139	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 1	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23.	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	None	Cool-4C
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	28 Days/48 Hours
		TYPE OF CONTAINER	G/P	G/P
		NO. OF CONTAINER(S)	1	1
		VOLUME	120mL	60mL
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX1 8	SOIL	8/9/11	0917	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FM Hall CHPRC	8/9/11 1425	TA PMAZIER	8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-140	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 2	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23.	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682E510	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	None	Cool~4C
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	28 Days/48 Hours
		TYPE OF CONTAINER	G/P	G/P
		NO. OF CONTAINER(S)	1	1
		VOLUME	120mL	60mL
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX2 9	SOIL	8/9/11	0920	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Frazier	DATE/TIME: 8/9/11 1425	** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. (1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196; (2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
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	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-096-141	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01 / AIR QUALITY: ☐ / DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 3	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23.	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302687ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE / ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX3	10	SOIL	8/9/11	0935	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Frazier	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

Tuesday, August 09, 2011 3:51:35 PM
Page 12 of 18

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-142	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #SA Sample 4	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX4	SOIL	8/9/11	0948	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: D A Frazier	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-143	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 5	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23.	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX5	12	SOIL	8/9/11	0955	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Frazier	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-144	PAGE 1 OF 1
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1657	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 6	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX6 13	SOIL	8/9/11	1010	✓	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FM Hall CHPRC	1425 8-9-11	TA FM22129	1425 8-9-11

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011 A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-145	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 7	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool-4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX7 14	SOIL	8/9/11	1016	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Frazier	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GK1 applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-146	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1667	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND
SAMPLING LOCATION: Area AA Stockpile #5A Sample 8	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: ☐	12 Days / 12 Days
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-23	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool-4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX8	15	SOIL	8/9/11	1029	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Frazier	DATE/TIME: 8/9/11 1425
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
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 CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196;
(2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

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

PRINTED ON 7/11/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-096-147	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: LUKE, SN	TELEPHONE NO.: 372-1567	PROJECT COORDINATOR: LUKE, SN	PRICE CODE: C01	DATA TURNAROUND: 12 Days / 12 Days
SAMPLING LOCATION: Area AA Stockpile #5A Sample 9	PROJECT DESIGNATION: Area AA In-Process Sampling - Soil		SAF NO.: F11-096	AIR QUALITY: [ ]	
ICE CHEST NO.: SML-009	FIELD LOGBOOK NO.: HNF-N-507-23.	ACTUAL SAMPLE DEPTH: 0-1'	COA: 302682ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	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	Cool~4C
HOLDING TIME	6 Months	28 Days/48 Hours
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2FNX9 16	SOIL	8/9/11	0917	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 8/9/11 1425	RECEIVED BY/STORED IN: TA Frazier	DATE/TIME: 8/9/11 1425	** The CACN for all analytical work at WSCF laboratory is 402581ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. (1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; Chromium Hex - 7196; (2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
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	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 7/11/2011 A-6007-618 (REV 7)

Appendix 5

Data Validation Supporting Documentation

VALIDATION LEVEL:	A	B	C	D	E
PROJECT: 100K Area AA			DATA PACKAGE: VSR12-004		
VALIDATOR: Eyda Hergenreder		LAB: WSCF		DATE: 11-10-2011	
			SDG: WSCF112903		
ANALYSES PERFORMED					
Anions/IC X	TOC	TOX	TPH-418.1	Oil and Grease	Alkalinity
Ammonia	BOD/COD	Chloride	Chromium-VI X	pH	NO_3/NO_2
Sulfate	TDS	TKN	Phosphate	Cyanide	

SAMPLES/MATRIX Soil samples

WSCF112903: B2FNY0, B2FNY1, B2FNY2, B2FNY3, B2FNY4, B2FNY5, B2FNY6, B2FNX1, B2FNX2, B2FNX3, B2FNX4, B2FNX5, B2FNX6, B2FNX7, B2FNX8, B2FNX9

1. DATA PACKAGE COMPLETENESS AND CASE NARRATIVE

Technical verification documentation present?..... Yes (No) N/A

Comments: None

2. INSTRUMENT PERFORMANCE AND CALIBRATIONS (Levels D and E)

Initial calibrations performed on all instruments? ..... Yes No N/A

Initial calibrations acceptable? ..... Yes No N/A

ICV and CCV checks performed on all instruments? ..... Yes No N/A

ICV and CCV checks acceptable? ..... Yes No N/A

Standards traceable? ..... Yes No N/A

Standards expired? ..... Yes No N/A

Calculation check acceptable? ..... Yes No N/A

Comments:

3. BLANKS (Levels B, C, D, and E)

ICB and CCB checks performed for all applicable analyses? (Levels D, E) ..... Yes No N/A

ICB and CCB results acceptable? (Levels D, E) ..... Yes No N/A

Laboratory blanks analyzed? ..... Yes No N/A

Laboratory blank results acceptable? ..... Yes No N/A

Field blanks analyzed? (Levels C, D, E) ..... Yes No N/A

Field blank results acceptable? (Levels C, D, E) ..... Yes No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No N/A

Comments: None

4. ACCURACY (Levels C, D, and E)

Spike samples analyzed? ..... (Yes) No N/A

Spike recoveries acceptable? ..... Yes (No) N/A

Spike standards NIST traceable? (Levels D, E) ..... Yes No (N/A)

Spike standards expired? (Levels D, E) ..... Yes No (N/A)

LCS/BSS samples analyzed? ..... (Yes) No N/A

LCS/BSS results acceptable? ..... (Yes) No N/A

Standards traceable? (Levels D, E) ..... Yes No (N/A)

Standards expired? (Levels D, E) ..... Yes No (N/A)

Transcription/calculation errors? (Levels D, E) ..... Yes No (N/A)

Performance audit sample(s) analyzed? ..... Yes No (N/A)

Performance audit sample results acceptable? ..... Yes No (N/A)

Comments:

Cr+6: (batch 188092) MS 58%
Cr +6: (batch 188130) MS 45%

5. PRECISION (Levels C, D, and E)

Duplicate RPD values acceptable?.....Yes No N/A

Duplicate results acceptable?.....Yes No N/A

MS/MSD standards NIST traceable? (Levels D, E)..... Yes No N/A

MS/MSD standards expired? (Levels D, E)..... Yes No N/A

Field duplicate RPD values acceptable?.....Yes No N/A

Field split RPD values acceptable?..... Yes No N/A

Transcription/calculation errors? (Levels D, E)..... Yes No N/A

Comments: None

6. HOLDING TIMES (all levels)

Samples properly preserved?.....Yes No N/A

Sample holding times acceptable?.....Yes No N/A

Comments: None

7. RESULT QUANTITATION AND DETECTION LIMITS (all levels)

Results reported for all requested analyses?.....Yes No N/A

Results supported in the raw data? (Levels D, E) ..... Yes No N/A

Samples properly prepared? (Levels D, E)..... Yes No N/A

Detection limits meet RDL?.....Yes No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No N/A

Comments: None

Comments (attach additional sheets as necessary):

Appendix 6

Additional Documentation Requested By Client

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

QC Batch 188092 **Test** Hexavalent chromium
Associated Samples 112903001, 112903002, 112903003, 112903004, 112903005, 112903006, 112903007, 112903008, 112903009

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #62662**							
Hexavalent chromium	18540-29-9		<0.099	ug/g					U	08/11/11
LCS			**QC Sample #62663**							
Hexavalent chromium	18540-29-9		3.79	ug/g	97.8	80 - 120				08/11/11
DUP			**QC Sample #62664**							
			Original 112884001							
Hexavalent chromium	18540-29-9		0.108	ug/g			1.90	30	B	08/11/11
MS			**QC Sample #62665**							
			Original 112884001							
Hexavalent chromium	18540-29-9		2.29	ug/g	57.5	75 - 125			N	08/11/11
PSTSPK			**QC Sample #62666**							
Hexavalent chromium	18540-29-9		0.0497	ug/g	99.4	85 - 115				08/11/11
IMS			**QC Sample #62667**							
			Original 112884001							
Hexavalent chromium	18540-29-9		285	ug/g	88	75 - 125				08/11/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

QC Batch 188107 **Test** Anions by Ion Chromatography (Solid)
Associated Samples 112903001, 112903002, 112903003, 112903004, 112903005, 112903006, 112903007, 112903008, 112903009, 112903010

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #62727**							
Fluoride	16984-48-8		<0.036	ug/mL					U	08/10/11
Chloride	16887-00-6		<0.062	ug/mL					U	08/10/11
Nitrite-N	NO2-N		<0.020	ug/mL					U	08/10/11
Nitrate-N	NO3-N		<0.019	ug/mL					U	08/10/11
Sulfate	14808-79-8		<0.072	ug/mL					U	08/10/11
LCS			**QC Sample #62728**							
Fluoride	16984-48-8		0.916	ug/mL	92.5	90 - 110				08/10/11
Chloride	16887-00-6		1.82	ug/mL	91.9	90 - 110				08/10/11
Nitrite-N	NO2-N		0.950	ug/mL	97.1	90 - 110				08/10/11
Nitrate-N	NO3-N		0.879	ug/mL	99.3	90 - 110				08/10/11
Sulfate	14808-79-8		3.72	ug/mL	94.8	90 - 110				08/10/11
MS			**QC Sample #62729**							
			Original 112903001							
Fluoride	16984-48-8	<1.8	21.2	mg/kg	84.3	80 - 120				08/10/11
Chloride	16887-00-6	<3.1	46.2	mg/kg	92	80 - 120				08/10/11
Nitrite-N	NO2-N	<0.99	23.3	mg/kg	93.9	80 - 120				08/10/11
Nitrate-N	NO3-N	<0.94	22.4	mg/kg	99.8	80 - 120				08/10/11
Sulfate	14808-79-8	<3.6	92.6	mg/kg	93	80 - 120				08/10/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
MSD			**QC Sample #62730**								
			Original	**112903001**					**Paired**	**62729**	
Fluoride	16984-48-8	<1.8	21.6	mg/kg	86.3	80 - 120	2.30	30			08/10/11
Chloride	16887-00-6	<3.1	47.0	mg/kg	93.7	80 - 120	1.80	30			08/10/11
Nitrite-N	NO2-N	<0.99	23.8	mg/kg	96	80 - 120	2.20	30			08/10/11
Nitrate-N	NO3-N	<0.94	22.7	mg/kg	101.2	80 - 120	1.40	30			08/10/11
Sulfate	14808-79-8	<3.6	92.7	mg/kg	93.4	80 - 120	0.40	30			08/10/11
DUP			**QC Sample #62731**								
			Original	**112903001**							
Fluoride	16984-48-8	<1.8	<1.8	mg/kg			0.00	30		U	08/10/11
Chloride	16887-00-6	<3.1	<3.1	mg/kg			16.20	30		U	08/10/11
Nitrite-N	NO2-N	<0.99	<0.99	mg/kg			0.00	30		U	08/10/11
Nitrate-N	NO3-N	<0.94	<0.94	mg/kg			3.80	30		U	08/10/11
Sulfate	14808-79-8	<3.6	<3.6	mg/kg			200.00	30	*	UX	08/10/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

QC Batch 188109 **Test** Anions by Ion Chromatography (Solid)
Associated Samples 112903011, 112903012, 112903013, 112903014, 112903015, 112903016

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #62733**							
Fluoride	16984-48-8		<0.036	ug/mL					U	08/10/11
Chloride	16887-00-6		<0.062	ug/mL					U	08/10/11
Nitrite-N	NO2-N		<0.020	ug/mL					U	08/10/11
Nitrate-N	NO3-N		<0.019	ug/mL					U	08/10/11
Sulfate	14808-79-8		<0.072	ug/mL					U	08/10/11
LCS			**QC Sample #62735**							
Fluoride	16984-48-8		0.923	ug/mL	93.3	90 - 110				08/10/11
Chloride	16887-00-6		1.84	ug/mL	92.7	90 - 110				08/10/11
Nitrite-N	NO2-N		0.957	ug/mL	97.8	90 - 110				08/10/11
Nitrate-N	NO3-N		0.888	ug/mL	100.3	90 - 110				08/10/11
Sulfate	14808-79-8		3.68	ug/mL	93.8	90 - 110				08/10/11
MS			**QC Sample #62736**							
			Original	**112903011**						
Fluoride	16984-48-8	<1.8	21.6	mg/kg	85.8	80 - 120				08/10/11
Chloride	16887-00-6	<3.1	45.0	mg/kg	89.3	80 - 120				08/10/11
Nitrite-N	NO2-N	<1.0	23.2	mg/kg	93.4	80 - 120				08/10/11
Nitrate-N	NO3-N	<0.95	22.5	mg/kg	100	80 - 120				08/10/11
Sulfate	14808-79-8	8.92	87.3	mg/kg	87.6	80 - 120				08/10/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MSD			**QC Sample #62737**							
			Original	**112903011**				**Paired**	**62736**	
Fluoride	16984-48-8	<1.8	21.5	mg/kg	85.4	80 - 120	0.50	30		08/10/11
Chloride	16887-00-6	<3.1	45.4	mg/kg	90.1	80 - 120	0.90	30		08/10/11
Nitrite-N	NO2-N	<1.0	23.3	mg/kg	93.7	80 - 120	0.30	30		08/10/11
Nitrate-N	NO3-N	<0.95	22.2	mg/kg	98.6	80 - 120	1.40	30		08/10/11
Sulfate	14808-79-8	8.92	88.5	mg/kg	88.8	80 - 120	1.40	30		08/10/11
DUP			**QC Sample #62738**							
			Original	**112903011**						
Fluoride	16984-48-8	<1.8	<1.8	mg/kg			0.00	30	U	08/10/11
Chloride	16887-00-6	<3.1	<3.1	mg/kg			18.80	30	U	08/10/11
Nitrite-N	NO2-N	<1.0	<1.0	mg/kg			0.00	30	U	08/10/11
Nitrate-N	NO3-N	<0.95	<0.95	mg/kg			26.80	30	U	08/10/11
Sulfate	14808-79-8	8.92	7.98	mg/kg			11.10	30	B	08/10/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF112903

QC Batch 188130 **Test** Hexavalent chromium
Associated Samples 112903010, 112903011, 112903012, 112903013, 112903014, 112903015, 112903016

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #62813**								
Hexavalent chromium	18540-29-9		<0.099	ug/g						U	08/12/11
LCS			**QC Sample #62814**								
Hexavalent chromium	18540-29-9		4.03	ug/g	101.6	80 - 120					08/12/11
DUP			**QC Sample #62815**								
			Original 112844001								
Hexavalent chromium	18540-29-9		<0.10	ug/g			40.10	30	*	U	08/12/11
MS			**QC Sample #62816**								
			Original 112844001								
Hexavalent chromium	18540-29-9		1.81	ug/g	45.3	75 - 125				N	08/12/11
PSTSPK			**QC Sample #62817**								
Hexavalent chromium	18540-29-9		0.0458	ug/g	91.6	85 - 115					08/12/11
IMS			**QC Sample #62818**								
			Original 112844001								
Hexavalent chromium	18540-29-9		254	ug/g	80.6	75 - 125					08/12/11