CHPRC - REVIEW COMMENT RECORD (RCR)

1. Date	2. Review No.
6/19/12	RCR-VSR12-016
3. Project No. 100-K	Page 1 of ~~2~~ 1

5. Document Number(s)/Title(s)	6. Program/Project/Building Number	7. Reviewer	8. Organization/Group	9. Location/Phone
VSR12-016, Area AH Samples Project 100k	SGRP	SL Huggins	SGRP QA	MO-2216E/A101 373-3630

17. Comment Submittal Approval	10. Agreement With Indicated Comment Disposition(s)	11. CLOSED
6/19/12 Date; Organization Manager (optional) (print and sign) SL HUGGINS	Date; Reviewer/Point of Contact (print and sign); Author/Originator (print and sign)	6/26/12 Date; Reviewer/Point of Contact (print and sign) S.L. 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	In the inorganic section, the qualification summary identifies Li in sample B2L2M2 with low LCS recovery. There is no sample number B2L2M2 in the batch	Appears to be a typo or transcription error.	Identify appropriate sample number	Y	Qualifier should be for sample B2L2M3	CLOSED
2	~~In the radiochemical section, the Sr-89/90 UJ qualifier is applied to samples B2L2X0 and B2L2P7 in the lab data however, the summary table does not include those samples~~	~~Summary table does not match qualifiers applied to the data.~~	~~Add samples to summary~~		Void comment 6/25/12	

CHPRC - REVIEW COMMENT RECORD (RCR)

1. Date	06/25/2012
2. Review No.	
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
VSR12-016		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) Date: 06/25/2012 Author/Originator (print and sign): [signature]	Scot Fitzgerald Reviewer/Point of Contact (print and sign) Date: 06/25/2012 Author/Originator (print and sign): [signature]

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 (not already identified on other reviewers RCR) noted.					

REVIEW COMMENT RECORD (RCR)

1. Date	2. Review No.
06/18/2012	
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: VSR12-016, Area AH Samples, 100-K Project	Area AH Waste Sites	D. L. Klages	100-K Soil Remediation	(509)942-3947

17. Comment Submittal Approval	10. Agreement With Indicated Comment Disposition(s)	11. CLOSED
Date: _____ Organization Manager (optional) (print and sign): _____	Deanna L. Klages Reviewer/Point of Contact (print and sign) Date: 6/18/2012 Deanna L. Klages Author/Originator (print and sign)	Deanna L. Klages Reviewer/Point of Contact (print and sign) Date: 6/18/2012 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 with this report.					

ANALYTICAL QUALITY ASSOCIATES, INC.
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Albuquerque, NM 87123
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Data Validation Report for CH2M Hill
Plateau Remediation Company

VSR12-016
Area AH Samples
Project 100-K

Chemical & Radiochemical Validation - Level C

Validation Performed By: Eyda Hergenreder Eyda Hergenreder ***Date: 06-15-12***

Validation reviewed by: _____ ***Date: 06-15-12***
Marcia Hilchey

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Date: 26 June 2012
To: CH2M Hill (technical representative)
From: Analytical Quality Associates, Inc.
Project: 100-K
Subject: Inorganics - Sample Data Groups (SDGs) WSCF120424 and WSCF120428

INTRODUCTION

This memorandum presents the results of data validation for SDGs WSCF120424 and WSCF120428 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
B2L2M3	03/28/12	Soil	C	6010B & 200.8
B2L2M6	03/28/12	Soil	C	6010B & 200.8
B2L2M9	03/28/12	Soil	C	6010B & 200.8
B2L2N2	03/28/12	Soil	C	6010B & 200.8
B2L2W4	03/28/12	Soil	C	6010B & 200.8
B2L2W7	03/28/12	Soil	C	6010B & 200.8
B2L2T2	03/28/12	Soil	C	6010B & 200.8
B2L2T6	03/28/12	Soil	C	6010B & 200.8
B2L2V8	04/01/12	Soil	C	6010B & 200.8
B2L2Y5	04/01/12	Soil	C	6010B & 200.8
B2L2N8	04/01/12	Soil	C	6010B & 200.8
B2L2W1	04/01/12	Soil	C	6010B & 200.8
B2L2P1	04/01/12	Soil	C	6010B & 200.8
B2L2Y8	04/01/12	Soil	C	6010B & 200.8
B2L2P4	04/01/12	Soil	C	6010B & 200.8
B2L2Y2	04/01/12	Soil	C	6010B & 200.8
B2L2N5	04/01/12	Soil	C	6010B & 200.8
B2L2X3	04/01/12	Soil	C	6010B & 200.8
B2L2T4	04/01/12	Soil	C	6010B & 200.8
B2L2V2	04/01/12	Soil	C	6010B & 200.8
B2L2T9	04/01/12	Soil	C	6010B & 200.8
B2L2X6	04/01/12	Soil	C	6010B & 200.8
B2L2V5	04/01/12	Soil	C	6010B & 200.8
B2L2X0	04/01/12	Soil	C	6010B & 200.8
B2L2P7	04/01/12	Soil	C	6010B & 200.8
B2L2X9	04/01/12	Soil	C	6010B & 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, (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. Sample preservation for all analytes 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 with the following exceptions.

For SDG WSCF120424, the Cr and V laboratory blank results were > the method detection limits (MDLs) but < the reporting limits (RLs). The Cr and V results for samples B2L2T2 were detects < the RL and should be qualified as non-detects at the RLs (1.0 mg/kg for Cr; 2.0 mg/kg for V) and flagged "U." All other sample results were well above the RLs and should not be qualified.

For SDG WSCF1020428, the Cr and V laboratory blank results were > the MDLs but < the RLs. The Cr results for samples B2L2Y2 and B2L2T9 were detects > the RL but <5X the blank value and should be qualified as estimates and flagged "J," based on professional judgment. The Cr and V results for sample B2L2T4 were < the RL and should be qualified as non-detects at the RLs (1.0 mg/kg for Cr; 2.0 mg/kg for V) and flagged "U."

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, Ba, Cr, Co, V, Pb, Mo, Sr and U were detected in field blank B2L2T2. The Cr and V results have been flagged “U” due to laboratory blank contamination. Mn, Ba, Cr, Co, V, Pb, Sr and U were detected in field blank sample B2L2T4. The Cr and V results have 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 and laboratory control sample accuracy limits are 70% to 130%. 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 with the following exceptions.

For SDG WSCF120424, the MS recovery for Se was < the lower acceptance. The Se result for sample B2L2W7 was detect and should be qualified as an estimate and flagged “J-.” All other sample results were non-detects and should be qualified as estimates and flagged "UJ." See the table in Appendix 2 for a listing of all affected sample results.

For SDG WSCF120428, for batch 198390, the MS recovery for Se was < the low acceptance limit. The Se result for sample B2L2Y5 was a detect and should be qualified as an estimate and flagged "J-." The Se results for samples B2L2V8 and B2L2N8 were non-detects and should be qualified as estimates and flagged "UJ." For batch 198391 the MS recovery for Mn was above the acceptance limit and the MSD recovery was below the lower acceptance limit. All associated sample results were detects and should be qualified as estimates and flagged "J," based on professional judgment. See the table in Appendix 2 for a listing of all affected sample results.

Laboratory Control Samples (LCSs)

All LCS recoveries were acceptable with the following exceptions.

For SDG WSCF120424, the LCS recovery for Li was < the lower acceptance limit. The Li result for sample B2L2T2 was non-detect and should be qualified as an estimate and flagged "UJ." All other associated sample results were detects and should be qualified as estimates and flagged "J-." See the table in Appendix 2 for a listing of all affected sample results.

For SDG WSCF120428, for both batches, the LCS recoveries for Li were < the lower acceptance limit. The Li result for sample B2L2T4 was non-detect and should be qualified as an estimate and flagged "UJ." All other associated sample results were detects and should be qualified as

estimates and flagged "J-." See the table in Appendix 2 for a listing of all affected sample results.

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 with the following exceptions.

For SDG WSCF120424, the Se RPD was above the upper acceptance limit. The Se result for sample B2L2W7 was a detect and should be qualified as an estimate and would be flagged “J” but was further flagged "J-" due to MS recovery infraction. All other sample results were non-detects and should be qualified as estimates and flagged "UJ." See the table in Appendix 2 for a listing of all affected sample results.

For SDG WSC120428, for batch 198390, the Se RPD was above the upper acceptance limit. The Se result for sample B2L2Y5 was a detect and should be qualified as an estimate and would be flagged “J”, but was further flagged "J-." All other associated sample results were non-detects and should be qualified as estimates and flagged "UJ." See the table in Appendix 2 for a listing of all affected sample result.

Field Duplicate Samples

All field duplicate results were acceptable with the following exceptions. Samples B2L2X6 and B2L2T9 had Cr RPD = 41%, V RPD = 81% and Zn RPD =31%.

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 WSCF120424 and WSCF120428 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

Minor deficiencies leading to qualification of sample results as estimates were due to laboratory blank infractions for Cr and V, matrix spike and LCS recovery infractions, and poor MS/MSD precision. 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			
SDGs: WSCF120424, WSCF120428	Reviewer: AQA	Project: 100-K	Page 1 of 1
Analyte(s)	**Qualifier**	**Samples Affected**	**Reason**
Cr	1.0U	B2L2T2, B2L2T4	Laboratory blank contamination
V	2.0U	B2L2T2, B2L2T4	Laboratory blank contamination
Cr	J	B2L2Y2, B2L2T9	Laboratory blank contamination
Se	UJ	B2L2M3, B2L2M6, B2L2M9, B2L2N2, B2L2W4, B2L2T2, B2L2T6, B2L2V8, B2L2N8	Low matrix spike recovery and poor MS/MSD precision
Se	J-	B2L2W7, B2L2Y5	Low matrix spike recovery and poor MS/MSD precision
Mn	J	B2L2W1, B2L2P1, B2L2Y8, B2L2P4, B2L2Y2, B2L2N5, B2L2X3, B2L2T4, B2L2V2, B2L2T9, B2L2X6, B2L2V5, B2L2X0, B2L2P7, B2L2X9	Low MS and high MSD recoveries
Li	J-	B2L2M3, B2L2M6, B2L2M9, B2L2N2, B2L2W4, B2L2W7, B2L2T6, B2L2V8, B2L2Y5, B2L2N8, B2L2W1, B2L2P1, B2L2Y8, B2L2P4, B2L2Y2, B2L2N5, B2L2X3, B2L2V2, B2L2T9, B2L2X6, B2L2V5, B2L2X0, B2L2P7, B2L2X9,	Low LCS recovery
Li	UJ	B2L2T2, B2L2T4	Low LCS recovery

Comments: None

Appendix 3

Annotated Laboratory Reports

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424001
SAF# F11-092
Sample ID B2L2M3

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/02/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.2		mg/kg	1	1.2	3.8	04/02/12
Chloride	16887-00-6	LA-533-410	B		9.35		mg/kg	1	3.1	22	04/02/12
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.2	04/02/12
Nitrate-N	NO3-N	LA-533-410	B		2.90		mg/kg	1	0.99	5.3	04/02/12
Sulfate	14808-79-8	LA-533-410	B		19.4		mg/kg	1	5.9	56	04/02/12
Cr(VI) Prep											**04/05/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.10		ug/g	1	0.10	0.52	04/05/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	7.38		mg/kg	1	0.43	2.1	04/04/12
Boron	7440-42-8	LA-505-411	B		1.51		mg/kg	1	0.64	22	04/04/12
ICPMS Prep											**04/05/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412			311		mg/kg	1	0.10	1.0	04/05/12
Nickel	7440-02-0	LA-505-412			9.38		mg/kg	1	0.10	1.0	04/05/12
Silver	7440-22-4	LA-505-412	U		<0.051		mg/kg	1	0.051	0.51	04/05/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424001
SAF# F11-092
Sample ID B2L2M3

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U		<0.30		mg/kg	1	0.30	3.0	04/05/12
Barium	7440-39-3	LA-505-412			68.6		mg/kg	1	0.20	2.0	04/05/12
Beryllium	7440-41-7	LA-505-412	B		0.318		mg/kg	1	0.10	1.0	04/05/12
Cadmium	7440-43-9	LA-505-412	B		0.0827		mg/kg	1	0.051	0.51	04/05/12
Chromium	7440-47-3	LA-505-412			7.07		mg/kg	1	0.10	1.0	04/05/12
Cobalt	7440-48-4	LA-505-412			8.53		mg/kg	1	0.051	0.25	04/05/12
Copper	7440-50-8	LA-505-412			15.7		mg/kg	1	0.10	1.0	04/05/12
Vanadium	7440-62-2	LA-505-412			34.2		mg/kg	1	0.20	2.0	04/05/12
Zinc	7440-66-6	LA-505-412			39.1		mg/kg	1	1.0	10	04/05/12
Lead	7439-92-1	LA-505-412			5.06		mg/kg	1	0.051	0.51	04/05/12
Mercury	7439-97-6	LA-505-412	U		<0.051		mg/kg	1	0.051	0.20	04/05/12
Molybdenum	7439-98-7	LA-505-412	B		0.391		mg/kg	1	0.051	0.51	04/05/12
Strontium	7440-24-6	LA-505-412			29.6		mg/kg	1	0.10	1.0	04/05/12
Tin	7440-31-5	LA-505-412	B		0.441		mg/kg	1	0.051	0.51	04/05/12
Uranium	7440-61-1	LA-505-412			0.493		mg/kg	1	0.051	0.25	04/05/12
Arsenic	7440-38-2	LA-505-412			2.15		mg/kg	1	0.20	2.0	04/05/12
Selenium	7782-49-2	LA-505-412	UN	UJ	<0.25		mg/kg	0.5	0.25	2.5	04/06/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424002
SAF# F11-092
Sample ID B2L2M6

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/02/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.2		mg/kg	1	1.2	3.8	04/02/12
Chloride	16887-00-6	LA-533-410	B		3.16		mg/kg	1	3.1	22	04/02/12
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.2	04/02/12
Nitrate-N	NO3-N	LA-533-410	B		2.35		mg/kg	1	0.98	5.2	04/02/12
Sulfate	14808-79-8	LA-533-410	B		10.5		mg/kg	1	5.8	55	04/02/12
Cr(VI) Prep											**04/05/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.10		ug/g	1	0.10	0.51	04/05/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	5.44		mg/kg	1	0.43	2.1	04/04/12
Boron	7440-42-8	LA-505-411	B		0.824		mg/kg	1	0.64	22	04/04/12
ICPMS Prep											**04/05/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412			289		mg/kg	1	0.10	1.0	04/05/12
Nickel	7440-02-0	LA-505-412			7.83		mg/kg	1	0.10	1.0	04/05/12
Silver	7440-22-4	LA-505-412	U		<0.052		mg/kg	1	0.052	0.52	04/05/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424002
SAF# F11-092
Sample ID B2L2M6

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U		<0.31		mg/kg	1	0.31	3.1	04/05/12
Barium	7440-39-3	LA-505-412			62.1		mg/kg	1	0.21	2.1	04/05/12
Beryllium	7440-41-7	LA-505-412	B		0.291		mg/kg	1	0.10	1.0	04/05/12
Cadmium	7440-43-9	LA-505-412	B		0.0866		mg/kg	1	0.052	0.52	04/05/12
Chromium	7440-47-3	LA-505-412			5.88		mg/kg	1	0.10	1.0	04/05/12
Cobalt	7440-48-4	LA-505-412			7.87		mg/kg	1	0.052	0.26	04/05/12
Copper	7440-50-8	LA-505-412			16.1		mg/kg	1	0.10	1.0	04/05/12
Vanadium	7440-62-2	LA-505-412			29.9		mg/kg	1	0.21	2.1	04/05/12
Zinc	7440-66-6	LA-505-412			41.5		mg/kg	1	1.0	10	04/05/12
Lead	7439-92-1	LA-505-412			4.73		mg/kg	1	0.052	0.52	04/05/12
Mercury	7439-97-6	LA-505-412	U		<0.052		mg/kg	1	0.052	0.21	04/05/12
Molybdenum	7439-98-7	LA-505-412			0.681		mg/kg	1	0.052	0.52	04/05/12
Strontium	7440-24-6	LA-505-412			25.5		mg/kg	1	0.10	1.0	04/05/12
Tin	7440-31-5	LA-505-412	B		0.403		mg/kg	1	0.052	0.52	04/05/12
Uranium	7440-61-1	LA-505-412			0.524		mg/kg	1	0.052	0.26	04/05/12
Arsenic	7440-38-2	LA-505-412	B		1.79		mg/kg	1	0.21	2.1	04/05/12
Selenium	7782-49-2	LA-505-412	UN	UJ	<0.26		mg/kg	0.5	0.26	2.6	04/06/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424003
SAF# F11-092
Sample ID B2L2M9

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/02/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.2		mg/kg	1	1.2	3.8	04/02/12
Chloride	16887-00-6	LA-533-410	B		5.43		mg/kg	1	3.1	22	04/02/12
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.2	04/02/12
Nitrate-N	NO3-N	LA-533-410	B		1.25		mg/kg	1	0.99	5.3	04/02/12
Sulfate	14808-79-8	LA-533-410	B		14.1		mg/kg	1	5.8	56	04/02/12
Cr(VI) Prep											**04/05/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.10		ug/g	1	0.10	0.50	04/05/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	6.56		mg/kg	1	0.43	2.1	04/04/12
Boron	7440-42-8	LA-505-411	B		2.21		mg/kg	1	0.64	22	04/04/12
ICPMS Prep											**04/05/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412			312		mg/kg	1	0.12	1.2	04/05/12
Nickel	7440-02-0	LA-505-412			9.35		mg/kg	1	0.12	1.2	04/05/12
Silver	7440-22-4	LA-505-412	B		0.0592		mg/kg	1	0.058	0.58	04/05/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424003
SAF# F11-092
Sample ID B2L2M9

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U		<0.35		mg/kg	1	0.35	3.5	04/05/12
Barium	7440-39-3	LA-505-412			71.2		mg/kg	1	0.23	2.3	04/05/12
Beryllium	7440-41-7	LA-505-412	B		0.288		mg/kg	1	0.12	1.2	04/05/12
Cadmium	7440-43-9	LA-505-412	B		0.101		mg/kg	1	0.058	0.58	04/05/12
Chromium	7440-47-3	LA-505-412			6.93		mg/kg	1	0.12	1.2	04/05/12
Cobalt	7440-48-4	LA-505-412			8.55		mg/kg	1	0.058	0.29	04/05/12
Copper	7440-50-8	LA-505-412			17.3		mg/kg	1	0.12	1.2	04/05/12
Vanadium	7440-62-2	LA-505-412			34.5		mg/kg	1	0.23	2.3	04/05/12
Zinc	7440-66-6	LA-505-412			40.8		mg/kg	1	1.2	12	04/05/12
Lead	7439-92-1	LA-505-412			6.66		mg/kg	1	0.058	0.58	04/05/12
Mercury	7439-97-6	LA-505-412	U		<0.058		mg/kg	1	0.058	0.23	04/05/12
Molybdenum	7439-98-7	LA-505-412	B		0.483		mg/kg	1	0.058	0.58	04/05/12
Strontium	7440-24-6	LA-505-412			31.2		mg/kg	1	0.12	1.2	04/05/12
Tin	7440-31-5	LA-505-412	B		0.520		mg/kg	1	0.058	0.58	04/05/12
Uranium	7440-61-1	LA-505-412			0.468		mg/kg	1	0.058	0.29	04/05/12
Arsenic	7440-38-2	LA-505-412			2.57		mg/kg	1	0.23	2.3	04/05/12
Selenium	7782-49-2	LA-505-412	UN	UJ	<0.29		mg/kg	0.5	0.29	2.9	04/06/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424004
SAF# F11-092
Sample ID B2L2N2

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/02/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.1		mg/kg	1	1.1	3.8	04/02/12
Chloride	16887-00-6	LA-533-410			23.0		mg/kg	1	3.0	21	04/02/12
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.1	04/02/12
Nitrate-N	NO3-N	LA-533-410	B		1.21		mg/kg	1	0.97	5.2	04/02/12
Sulfate	14808-79-8	LA-533-410			182		mg/kg	1	5.7	55	04/02/12
Cr(VI) Prep											**04/05/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.096		ug/g	1	0.096	0.48	04/05/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	4.84		mg/kg	1	0.42	2.1	04/04/12
Boron	7440-42-8	LA-505-411	B		3.06		mg/kg	1	0.63	21	04/04/12
ICPMS Prep											**04/05/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412			244		mg/kg	1	0.11	1.1	04/05/12
Nickel	7440-02-0	LA-505-412			7.23		mg/kg	1	0.11	1.1	04/05/12
Silver	7440-22-4	LA-505-412	U		<0.054		mg/kg	1	0.054	0.54	04/05/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424004
SAF# F11-092
Sample ID B2L2N2

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U		<0.32		mg/kg	1	0.32	3.2	04/05/12
Barium	7440-39-3	LA-505-412			62.5		mg/kg	1	0.22	2.2	04/05/12
Beryllium	7440-41-7	LA-505-412	B		0.251		mg/kg	1	0.11	1.1	04/05/12
Cadmium	7440-43-9	LA-505-412	B		0.0725		mg/kg	1	0.054	0.54	04/05/12
Chromium	7440-47-3	LA-505-412			4.56		mg/kg	1	0.11	1.1	04/05/12
Cobalt	7440-48-4	LA-505-412			7.67		mg/kg	1	0.054	0.27	04/05/12
Copper	7440-50-8	LA-505-412			16.1		mg/kg	1	0.11	1.1	04/05/12
Vanadium	7440-62-2	LA-505-412			28.2		mg/kg	1	0.22	2.2	04/05/12
Zinc	7440-66-6	LA-505-412			34.3		mg/kg	1	1.1	11	04/05/12
Lead	7439-92-1	LA-505-412			9.14		mg/kg	1	0.054	0.54	04/05/12
Mercury	7439-97-6	LA-505-412	U		<0.054		mg/kg	1	0.054	0.22	04/05/12
Molybdenum	7439-98-7	LA-505-412	B		0.364		mg/kg	1	0.054	0.54	04/05/12
Strontium	7440-24-6	LA-505-412			30.2		mg/kg	1	0.11	1.1	04/05/12
Tin	7440-31-5	LA-505-412	B		0.442		mg/kg	1	0.054	0.54	04/05/12
Uranium	7440-61-1	LA-505-412			0.444		mg/kg	1	0.054	0.27	04/05/12
Arsenic	7440-38-2	LA-505-412			2.21		mg/kg	1	0.22	2.2	04/05/12
Selenium	7782-49-2	LA-505-412	UN	UJ	<0.27		mg/kg	0.5	0.27	2.7	04/06/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424005
SAF# F11-092
Sample ID B2L2W4

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/02/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.1		mg/kg	1	1.1	3.8	04/02/12
Chloride	16887-00-6	LA-533-410	B	8.05		mg/kg	1	3.0	21	04/02/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.1	04/02/12
Nitrate-N	NO3-N	LA-533-410	B	3.23		mg/kg	1	0.97	5.2	04/02/12
Sulfate	14808-79-8	LA-533-410	B	10.4		mg/kg	1	5.7	55	04/02/12
Cr(VI) Prep										**04/05/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.51	04/05/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		J- 5.67		mg/kg	1	0.43	2.1	04/04/12
Boron	7440-42-8	LA-505-411	B	0.872		mg/kg	1	0.64	22	04/04/12
ICPMS Prep										**04/05/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412		309		mg/kg	1	0.11	1.1	04/05/12
Nickel	7440-02-0	LA-505-412		9.35		mg/kg	1	0.11	1.1	04/05/12
Silver	7440-22-4	LA-505-412	U	<0.054		mg/kg	1	0.054	0.54	04/05/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424005
SAF# F11-092
Sample ID B2L2W4

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U		<0.32		mg/kg	1	0.32	3.2	04/05/12
Barium	7440-39-3	LA-505-412			61.7		mg/kg	1	0.22	2.2	04/05/12
Beryllium	7440-41-7	LA-505-412	B		0.345		mg/kg	1	0.11	1.1	04/05/12
Cadmium	7440-43-9	LA-505-412	B		0.0701		mg/kg	1	0.054	0.54	04/05/12
Chromium	7440-47-3	LA-505-412			6.26		mg/kg	1	0.11	1.1	04/05/12
Cobalt	7440-48-4	LA-505-412			8.85		mg/kg	1	0.054	0.27	04/05/12
Copper	7440-50-8	LA-505-412			16.5		mg/kg	1	0.11	1.1	04/05/12
Vanadium	7440-62-2	LA-505-412			29.4		mg/kg	1	0.22	2.2	04/05/12
Zinc	7440-66-6	LA-505-412			36.6		mg/kg	1	1.1	11	04/05/12
Lead	7439-92-1	LA-505-412			5.10		mg/kg	1	0.054	0.54	04/05/12
Mercury	7439-97-6	LA-505-412	U		<0.054		mg/kg	1	0.054	0.22	04/05/12
Molybdenum	7439-98-7	LA-505-412	B		0.286		mg/kg	1	0.054	0.54	04/05/12
Strontium	7440-24-6	LA-505-412			29.0		mg/kg	1	0.11	1.1	04/05/12
Tin	7440-31-5	LA-505-412	B		0.377		mg/kg	1	0.054	0.54	04/05/12
Uranium	7440-61-1	LA-505-412			0.574		mg/kg	1	0.054	0.27	04/05/12
Arsenic	7440-38-2	LA-505-412	B		2.17		mg/kg	1	0.22	2.2	04/05/12
Selenium	7782-49-2	LA-505-412	UN	UJ	<0.27		mg/kg	0.5	0.27	2.7	04/06/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424006
SAF# F11-092
Sample ID B2L2W7

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/02/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.2		mg/kg	1	1.2	3.9	04/02/12
Chloride	16887-00-6	LA-533-410	B		8.79		mg/kg	1	3.1	22	04/02/12
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.2	04/02/12
Nitrate-N	NO3-N	LA-533-410	B		3.68		mg/kg	1	0.99	5.3	04/02/12
Sulfate	14808-79-8	LA-533-410	B		13.7		mg/kg	1	5.9	56	04/02/12
Cr(VI) Prep											**04/05/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.10		ug/g	1	0.10	0.52	04/05/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	5.14		mg/kg	1	0.43	2.1	04/04/12
Boron	7440-42-8	LA-505-411	B		1.01		mg/kg	1	0.64	22	04/04/12
ICPMS Prep											**04/05/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412			276		mg/kg	1	0.10	1.0	04/05/12
Nickel	7440-02-0	LA-505-412			7.92		mg/kg	1	0.10	1.0	04/05/12
Silver	7440-22-4	LA-505-412	U		<0.050		mg/kg	1	0.050	0.50	04/05/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424006
SAF# F11-092
Sample ID B2L2W7

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U		<0.30		mg/kg	1	0.30	3.0	04/05/12
Barium	7440-39-3	LA-505-412			62.7		mg/kg	1	0.20	2.0	04/05/12
Beryllium	7440-41-7	LA-505-412	B		0.295		mg/kg	1	0.10	1.0	04/05/12
Cadmium	7440-43-9	LA-505-412	B		0.0823		mg/kg	1	0.050	0.50	04/05/12
Chromium	7440-47-3	LA-505-412			5.23		mg/kg	1	0.10	1.0	04/05/12
Cobalt	7440-48-4	LA-505-412			8.63		mg/kg	1	0.050	0.25	04/05/12
Copper	7440-50-8	LA-505-412			17.0		mg/kg	1	0.10	1.0	04/05/12
Vanadium	7440-62-2	LA-505-412			26.0		mg/kg	1	0.20	2.0	04/05/12
Zinc	7440-66-6	LA-505-412			34.6		mg/kg	1	1.0	10	04/05/12
Lead	7439-92-1	LA-505-412			4.08		mg/kg	1	0.050	0.50	04/05/12
Mercury	7439-97-6	LA-505-412	U		<0.050		mg/kg	1	0.050	0.20	04/05/12
Molybdenum	7439-98-7	LA-505-412	B		0.282		mg/kg	1	0.050	0.50	04/05/12
Strontium	7440-24-6	LA-505-412			29.0		mg/kg	1	0.10	1.0	04/05/12
Tin	7440-31-5	LA-505-412	B		0.397		mg/kg	1	0.050	0.50	04/05/12
Uranium	7440-61-1	LA-505-412			0.450		mg/kg	1	0.050	0.25	04/05/12
Arsenic	7440-38-2	LA-505-412			2.15		mg/kg	1	0.20	2.0	04/05/12
Selenium	7782-49-2	LA-505-412	BN	J-	0.270		mg/kg	0.5	0.25	2.5	04/06/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424007
SAF# F11-092
Sample ID B2L2T2

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/02/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.1		mg/kg	1	1.1	3.6	04/02/12
Chloride	16887-00-6	LA-533-410	U		<2.9		mg/kg	1	2.9	20	04/02/12
Nitrite-N	NO2-N	LA-533-410	U		<0.95		mg/kg	1	0.95	4.8	04/02/12
Nitrate-N	NO3-N	LA-533-410	U		<0.92		mg/kg	1	0.92	4.9	04/02/12
Sulfate	14808-79-8	LA-533-410	U		<5.4		mg/kg	1	5.4	52	04/02/12
Cr(VI) Prep											**04/05/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.099		ug/g	1	0.099	0.49	04/05/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411	U	UJ	<0.40		mg/kg	1	0.40	2.0	04/04/12
Boron	7440-42-8	LA-505-411	U		<0.60		mg/kg	1	0.60	21	04/04/12
ICPMS Prep											**04/05/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412			7.89		mg/kg	1	0.10	1.0	04/05/12
Nickel	7440-02-0	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	04/05/12
Silver	7440-22-4	LA-505-412	U		<0.051		mg/kg	1	0.051	0.51	04/05/12

MDL = Minimum Detection Limit
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TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424007
SAF# F11-092
Sample ID B2L2T2

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U		<0.30		mg/kg	1	0.30	3.0	04/05/12
Barium	7440-39-3	LA-505-412			3.08		mg/kg	1	0.20	2.0	04/05/12
Beryllium	7440-41-7	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	04/05/12
Cadmium	7440-43-9	LA-505-412	U		<0.051		mg/kg	1	0.051	0.51	04/05/12
Chromium	7440-47-3	LA-505-412	BC	1.0U	0.317		mg/kg	1	0.10	1.0	04/05/12
Cobalt	7440-48-4	LA-505-412	B		0.118		mg/kg	1	0.051	0.25	04/05/12
Copper	7440-50-8	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	04/05/12
Vanadium	7440-62-2	LA-505-412	BC	2.0U	0.952		mg/kg	1	0.20	2.0	04/05/12
Zinc	7440-66-6	LA-505-412	U		<1.0		mg/kg	1	1.0	10	04/05/12
Lead	7439-92-1	LA-505-412	B		0.419		mg/kg	1	0.051	0.51	04/05/12
Mercury	7439-97-6	LA-505-412	U		<0.051		mg/kg	1	0.051	0.20	04/05/12
Molybdenum	7439-98-7	LA-505-412	B		0.0659		mg/kg	1	0.051	0.51	04/05/12
Strontium	7440-24-6	LA-505-412	B		0.992		mg/kg	1	0.10	1.0	04/05/12
Tin	7440-31-5	LA-505-412	U		<0.051		mg/kg	1	0.051	0.51	04/05/12
Uranium	7440-61-1	LA-505-412	B		0.0892		mg/kg	1	0.051	0.25	04/05/12
Arsenic	7440-38-2	LA-505-412	U		<0.20		mg/kg	1	0.20	2.0	04/05/12
Selenium	7782-49-2	LA-505-412	UN	UJ	<0.25		mg/kg	0.5	0.25	2.5	04/06/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424008
SAF# F11-092
Sample ID B2L2T6

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/02/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.2		mg/kg	1	1.2	3.8	04/02/12
Chloride	16887-00-6	LA-533-410	B		8.13		mg/kg	1	3.1	21	04/02/12
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.2	04/02/12
Nitrate-N	NO3-N	LA-533-410	B		3.09		mg/kg	1	0.98	5.2	04/02/12
Sulfate	14808-79-8	LA-533-410	B		10.5		mg/kg	1	5.8	55	04/02/12
Cr(VI) Prep											**04/05/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.10		ug/g	1	0.10	0.52	04/05/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	5.13		mg/kg	1	0.43	2.1	04/04/12
Boron	7440-42-8	LA-505-411	B		0.798		mg/kg	1	0.64	22	04/04/12
ICPMS Prep											**04/05/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412			345		mg/kg	1	0.11	1.1	04/05/12
Nickel	7440-02-0	LA-505-412			12.1		mg/kg	1	0.11	1.1	04/05/12
Silver	7440-22-4	LA-505-412	U		<0.055		mg/kg	1	0.055	0.55	04/05/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
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B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
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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 Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424008
SAF# F11-092
Sample ID B2L2T6

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U		<0.33		mg/kg	1	0.33	3.3	04/05/12
Barium	7440-39-3	LA-505-412			64.6		mg/kg	1	0.22	2.2	04/05/12
Beryllium	7440-41-7	LA-505-412	B		0.325		mg/kg	1	0.11	1.1	04/05/12
Cadmium	7440-43-9	LA-505-412	B		0.0697		mg/kg	1	0.055	0.55	04/05/12
Chromium	7440-47-3	LA-505-412			7.34		mg/kg	1	0.11	1.1	04/05/12
Cobalt	7440-48-4	LA-505-412			9.49		mg/kg	1	0.055	0.28	04/05/12
Copper	7440-50-8	LA-505-412			16.4		mg/kg	1	0.11	1.1	04/05/12
Vanadium	7440-62-2	LA-505-412			35.9		mg/kg	1	0.22	2.2	04/05/12
Zinc	7440-66-6	LA-505-412			38.3		mg/kg	1	1.1	11	04/05/12
Lead	7439-92-1	LA-505-412			4.22		mg/kg	1	0.055	0.55	04/05/12
Mercury	7439-97-6	LA-505-412	U		<0.055		mg/kg	1	0.055	0.22	04/05/12
Molybdenum	7439-98-7	LA-505-412	B		0.302		mg/kg	1	0.055	0.55	04/05/12
Strontium	7440-24-6	LA-505-412			28.7		mg/kg	1	0.11	1.1	04/05/12
Tin	7440-31-5	LA-505-412	B		0.365		mg/kg	1	0.055	0.55	04/05/12
Uranium	7440-61-1	LA-505-412			0.453		mg/kg	1	0.055	0.28	04/05/12
Arsenic	7440-38-2	LA-505-412	B		2.07		mg/kg	1	0.22	2.2	04/05/12
Selenium	7782-49-2	LA-505-412	UN	UJ	<0.28		mg/kg	0.5	0.28	2.8	04/06/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
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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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428001
SAF# F11-092
Sample ID B2L2V8

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/04/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.2		mg/kg	1	1.2	3.9	04/04/12
Chloride	16887-00-6	LA-533-410	U		<3.1		mg/kg	1	3.1	22	04/04/12
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.3	04/04/12
Nitrate-N	NO3-N	LA-533-410	B		1.00		mg/kg	1	1.0	5.4	04/04/12
Sulfate	14808-79-8	LA-533-410	B		16.0		mg/kg	1	6.0	57	04/04/12
Cr(VI) Prep											**04/05/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.11		ug/g	1	0.11	0.53	04/05/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	7.11		mg/kg	1	0.44	2.2	04/04/12
Boron	7440-42-8	LA-505-411	B		1.13		mg/kg	1	0.66	22	04/04/12
ICPMS Prep											**04/05/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412			416		mg/kg	1	0.11	1.1	04/05/12
Nickel	7440-02-0	LA-505-412			28.3		mg/kg	1	0.11	1.1	04/05/12
Silver	7440-22-4	LA-505-412	B		0.102		mg/kg	1	0.053	0.53	04/05/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428001
SAF# F11-092
Sample ID B2L2V8

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	B		1.18		mg/kg	1	0.32	3.2	04/05/12
Barium	7440-39-3	LA-505-412			79.5		mg/kg	1	0.21	2.1	04/05/12
Beryllium	7440-41-7	LA-505-412	B		0.436		mg/kg	1	0.11	1.1	04/05/12
Cadmium	7440-43-9	LA-505-412	B		0.0778		mg/kg	1	0.053	0.53	04/05/12
Chromium	7440-47-3	LA-505-412			21.5		mg/kg	1	0.11	1.1	04/05/12
Cobalt	7440-48-4	LA-505-412			11.2		mg/kg	1	0.053	0.27	04/05/12
Copper	7440-50-8	LA-505-412			79.0		mg/kg	1	0.11	1.1	04/05/12
Vanadium	7440-62-2	LA-505-412			41.4		mg/kg	1	0.21	2.1	04/05/12
Zinc	7440-66-6	LA-505-412			46.5		mg/kg	1	1.1	11	04/05/12
Lead	7439-92-1	LA-505-412			6.93		mg/kg	1	0.053	0.53	04/05/12
Mercury	7439-97-6	LA-505-412	U		<0.053		mg/kg	1	0.053	0.21	04/05/12
Molybdenum	7439-98-7	LA-505-412			1.77		mg/kg	1	0.053	0.53	04/05/12
Strontium	7440-24-6	LA-505-412			38.0		mg/kg	1	0.11	1.1	04/05/12
Tin	7440-31-5	LA-505-412			9.72		mg/kg	1	0.053	0.53	04/05/12
Uranium	7440-61-1	LA-505-412			0.583		mg/kg	1	0.053	0.27	04/05/12
Arsenic	7440-38-2	LA-505-412			5.18		mg/kg	1	0.21	2.1	04/05/12
Selenium	7782-49-2	LA-505-412	UN	UJ	<0.27		mg/kg	0.5	0.27	2.7	04/06/12

MDL = Minimum Detection Limit
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TP Err = Total Propagated Error
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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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428002
SAF# F11-092
Sample ID B2L2Y5

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/04/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.2		mg/kg	1	1.2	3.9	04/04/12
Chloride	16887-00-6	LA-533-410	B		4.13		mg/kg	1	3.1	22	04/04/12
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.3	04/04/12
Nitrate-N	NO3-N	LA-533-410	B		1.28		mg/kg	1	1.0	5.3	04/04/12
Sulfate	14808-79-8	LA-533-410	B		8.89		mg/kg	1	5.9	56	04/04/12
Cr(VI) Prep											**04/05/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.094		ug/g	1	0.094	0.47	04/05/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	4.43		mg/kg	1	0.43	2.2	04/04/12
Boron	7440-42-8	LA-505-411	U		<0.65		mg/kg	1	0.65	22	04/04/12
ICPMS Prep											**04/05/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412			254		mg/kg	1	0.10	1.0	04/05/12
Nickel	7440-02-0	LA-505-412			8.02		mg/kg	1	0.10	1.0	04/05/12
Silver	7440-22-4	LA-505-412	U		<0.052		mg/kg	1	0.052	0.52	04/05/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428002
SAF# F11-092
Sample ID B2L2Y5

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U		<0.31		mg/kg	1	0.31	3.1	04/05/12
Barium	7440-39-3	LA-505-412			56.0		mg/kg	1	0.21	2.1	04/05/12
Beryllium	7440-41-7	LA-505-412	B		0.293		mg/kg	1	0.10	1.0	04/05/12
Cadmium	7440-43-9	LA-505-412	B		0.0538		mg/kg	1	0.052	0.52	04/05/12
Chromium	7440-47-3	LA-505-412			4.63		mg/kg	1	0.10	1.0	04/05/12
Cobalt	7440-48-4	LA-505-412			8.45		mg/kg	1	0.052	0.26	04/05/12
Copper	7440-50-8	LA-505-412			16.5		mg/kg	1	0.10	1.0	04/05/12
Vanadium	7440-62-2	LA-505-412			25.8		mg/kg	1	0.21	2.1	04/05/12
Zinc	7440-66-6	LA-505-412			34.7		mg/kg	1	1.0	10	04/05/12
Lead	7439-92-1	LA-505-412			4.05		mg/kg	1	0.052	0.52	04/05/12
Mercury	7439-97-6	LA-505-412	U		<0.052		mg/kg	1	0.052	0.21	04/05/12
Molybdenum	7439-98-7	LA-505-412	B		0.209		mg/kg	1	0.052	0.52	04/05/12
Strontium	7440-24-6	LA-505-412			27.9		mg/kg	1	0.10	1.0	04/05/12
Tin	7440-31-5	LA-505-412	B		0.374		mg/kg	1	0.052	0.52	04/05/12
Uranium	7440-61-1	LA-505-412			0.435		mg/kg	1	0.052	0.26	04/05/12
Arsenic	7440-38-2	LA-505-412	B		1.78		mg/kg	1	0.21	2.1	04/05/12
Selenium	7782-49-2	LA-505-412	BN	J-	0.264		mg/kg	0.5	0.26	2.6	04/06/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428003
SAF# F11-092
Sample ID B2L2N8

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/04/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.2		mg/kg	1	1.2	4.0	04/04/12
Chloride	16887-00-6	LA-533-410	B		11.8		mg/kg	1	3.2	23	04/04/12
Nitrite-N	NO2-N	LA-533-410	U		<1.1		mg/kg	1	1.1	5.4	04/04/12
Nitrate-N	NO3-N	LA-533-410	B		1.47		mg/kg	1	1.0	5.5	04/04/12
Sulfate	14808-79-8	LA-533-410	B		14.4		mg/kg	1	6.1	58	04/04/12
Cr(VI) Prep											**04/05/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.11		ug/g	1	0.11	0.55	04/05/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	8.45		mg/kg	1	0.44	2.2	04/04/12
Boron	7440-42-8	LA-505-411	B		0.896		mg/kg	1	0.66	23	04/04/12
ICPMS Prep											**04/05/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412			269		mg/kg	1	0.12	1.2	04/05/12
Nickel	7440-02-0	LA-505-412			8.24		mg/kg	1	0.12	1.2	04/05/12
Silver	7440-22-4	LA-505-412	U		<0.061		mg/kg	1	0.061	0.61	04/05/12

MDL = Minimum Detection Limit
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TP Err = Total Propagated Error
DF = Dilution Factor
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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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428003
SAF# F11-092
Sample ID B2L2N8

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U		<0.36		mg/kg	1	0.36	3.6	04/05/12
Barium	7440-39-3	LA-505-412			57.4		mg/kg	1	0.24	2.4	04/05/12
Beryllium	7440-41-7	LA-505-412	B		0.312		mg/kg	1	0.12	1.2	04/05/12
Cadmium	7440-43-9	LA-505-412	U		<0.061		mg/kg	1	0.061	0.61	04/05/12
Chromium	7440-47-3	LA-505-412			5.58		mg/kg	1	0.12	1.2	04/05/12
Cobalt	7440-48-4	LA-505-412			7.98		mg/kg	1	0.061	0.30	04/05/12
Copper	7440-50-8	LA-505-412			15.6		mg/kg	1	0.12	1.2	04/05/12
Vanadium	7440-62-2	LA-505-412			26.8		mg/kg	1	0.24	2.4	04/05/12
Zinc	7440-66-6	LA-505-412			31.1		mg/kg	1	1.2	12	04/05/12
Lead	7439-92-1	LA-505-412			4.13		mg/kg	1	0.061	0.61	04/05/12
Mercury	7439-97-6	LA-505-412	U		<0.061		mg/kg	1	0.061	0.24	04/05/12
Molybdenum	7439-98-7	LA-505-412	B		0.213		mg/kg	1	0.061	0.61	04/05/12
Strontium	7440-24-6	LA-505-412			25.7		mg/kg	1	0.12	1.2	04/05/12
Tin	7440-31-5	LA-505-412	B		0.336		mg/kg	1	0.061	0.61	04/05/12
Uranium	7440-61-1	LA-505-412			0.416		mg/kg	1	0.061	0.30	04/05/12
Arsenic	7440-38-2	LA-505-412	B		2.05		mg/kg	1	0.24	2.4	04/05/12
Selenium	7782-49-2	LA-505-412	UN	UJ	<0.30		mg/kg	0.5	0.30	3.0	04/06/12

MDL = Minimum Detection Limit
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C - Analyte was found in the Associated Blank. (Inorganic)
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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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428004
SAF# F11-092
Sample ID B2L2W1

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/04/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.2		mg/kg	1	1.2	3.9	04/04/12
Chloride	16887-00-6	LA-533-410	B		9.45		mg/kg	1	3.1	22	04/04/12
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.3	04/04/12
Nitrate-N	NO3-N	LA-533-410	B		1.00		mg/kg	1	1.0	5.4	04/04/12
Sulfate	14808-79-8	LA-533-410	B		9.20		mg/kg	1	5.9	57	04/04/12
Cr(VI) Prep											**04/05/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.099		ug/g	1	0.099	0.50	04/05/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	5.94		mg/kg	1	0.43	2.2	04/04/12
Boron	7440-42-8	LA-505-411	U		<0.65		mg/kg	1	0.65	22	04/04/12
ICPMS Prep											**04/10/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J	232		mg/kg	1	0.10	1.0	04/10/12
Nickel	7440-02-0	LA-505-412			6.43		mg/kg	1	0.10	1.0	04/10/12
Silver	7440-22-4	LA-505-412	B		0.0613		mg/kg	1	0.051	0.51	04/10/12

MDL = Minimum Detection Limit
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TP Err = Total Propagated Error
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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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428004
SAF# F11-092
Sample ID B2L2W1

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U	<0.31		mg/kg	1	0.31	3.1	04/10/12
Barium	7440-39-3	LA-505-412		50.3		mg/kg	1	0.20	2.0	04/10/12
Beryllium	7440-41-7	LA-505-412	B	0.258		mg/kg	1	0.10	1.0	04/10/12
Cadmium	7440-43-9	LA-505-412	B	0.0649		mg/kg	1	0.051	0.51	04/10/12
Chromium	7440-47-3	LA-505-412	C	4.78		mg/kg	1	0.10	1.0	04/10/12
Cobalt	7440-48-4	LA-505-412		7.70		mg/kg	1	0.051	0.26	04/10/12
Copper	7440-50-8	LA-505-412		12.9		mg/kg	1	0.10	1.0	04/10/12
Vanadium	7440-62-2	LA-505-412		41.6		mg/kg	1	0.20	2.0	04/10/12
Zinc	7440-66-6	LA-505-412		34.3		mg/kg	1	1.0	10	04/10/12
Lead	7439-92-1	LA-505-412		3.07		mg/kg	1	0.051	0.51	04/10/12
Mercury	7439-97-6	LA-505-412	U	<0.051		mg/kg	1	0.051	0.20	04/10/12
Molybdenum	7439-98-7	LA-505-412	B	0.414		mg/kg	1	0.051	0.51	04/10/12
Strontium	7440-24-6	LA-505-412		22.6		mg/kg	1	0.10	1.0	04/10/12
Tin	7440-31-5	LA-505-412	B	0.456		mg/kg	1	0.051	0.51	04/10/12
Uranium	7440-61-1	LA-505-412		0.441		mg/kg	1	0.051	0.26	04/10/12
Arsenic	7440-38-2	LA-505-412	B	1.80		mg/kg	1	0.20	2.0	04/10/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	04/11/12

MDL = Minimum Detection Limit
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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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428005
SAF# F11-092
Sample ID B2L2P1

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/04/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.3		mg/kg	1	1.3	4.1	04/04/12
Chloride	16887-00-6	LA-533-410			106		mg/kg	1	3.3	23	04/04/12
Nitrite-N	NO2-N	LA-533-410	U		<1.1		mg/kg	1	1.1	5.6	04/04/12
Nitrate-N	NO3-N	LA-533-410	U		<1.1		mg/kg	1	1.1	5.6	04/04/12
Sulfate	14808-79-8	LA-533-410	B		34.5		mg/kg	1	6.3	60	04/04/12
Cr(VI) Prep											**04/05/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.10		ug/g	1	0.10	0.50	04/05/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	7.93		mg/kg	1	0.46	2.3	04/04/12
Boron	7440-42-8	LA-505-411	B		0.881		mg/kg	1	0.69	23	04/04/12
ICPMS Prep											**04/10/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J	410		mg/kg	1	0.11	1.1	04/10/12
Nickel	7440-02-0	LA-505-412			12.1		mg/kg	1	0.11	1.1	04/10/12
Silver	7440-22-4	LA-505-412	B		0.0752		mg/kg	1	0.054	0.54	04/10/12

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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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428005
SAF# F11-092
Sample ID B2L2P1

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U	<0.32		mg/kg	1	0.32	3.2	04/10/12
Barium	7440-39-3	LA-505-412		82.0		mg/kg	1	0.21	2.1	04/10/12
Beryllium	7440-41-7	LA-505-412	B	0.475		mg/kg	1	0.11	1.1	04/10/12
Cadmium	7440-43-9	LA-505-412	B	0.0849		mg/kg	1	0.054	0.54	04/10/12
Chromium	7440-47-3	LA-505-412	C	9.73		mg/kg	1	0.11	1.1	04/10/12
Cobalt	7440-48-4	LA-505-412		11.9		mg/kg	1	0.054	0.27	04/10/12
Copper	7440-50-8	LA-505-412		20.4		mg/kg	1	0.11	1.1	04/10/12
Vanadium	7440-62-2	LA-505-412		64.3		mg/kg	1	0.21	2.1	04/10/12
Zinc	7440-66-6	LA-505-412		53.7		mg/kg	1	1.1	11	04/10/12
Lead	7439-92-1	LA-505-412		5.72		mg/kg	1	0.054	0.54	04/10/12
Mercury	7439-97-6	LA-505-412	U	<0.054		mg/kg	1	0.054	0.21	04/10/12
Molybdenum	7439-98-7	LA-505-412		0.712		mg/kg	1	0.054	0.54	04/10/12
Strontium	7440-24-6	LA-505-412		39.4		mg/kg	1	0.11	1.1	04/10/12
Tin	7440-31-5	LA-505-412		0.658		mg/kg	1	0.054	0.54	04/10/12
Uranium	7440-61-1	LA-505-412		0.654		mg/kg	1	0.054	0.27	04/10/12
Arsenic	7440-38-2	LA-505-412		3.24		mg/kg	1	0.21	2.1	04/10/12
Selenium	7782-49-2	LA-505-412	B	0.332		mg/kg	0.5	0.27	2.7	04/11/12

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X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428006
SAF# F11-092
Sample ID B2L2Y8

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/04/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.2		mg/kg	1	1.2	3.8	04/04/12
Chloride	16887-00-6	LA-533-410	B		3.79		mg/kg	1	3.1	22	04/04/12
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.2	04/04/12
Nitrate-N	NO3-N	LA-533-410	B		1.18		mg/kg	1	0.99	5.3	04/04/12
Sulfate	14808-79-8	LA-533-410	B		7.85		mg/kg	1	5.9	56	04/04/12
Cr(VI) Prep											**04/05/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.095		ug/g	1	0.095	0.47	04/05/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	6.88		mg/kg	1	0.43	2.2	04/04/12
Boron	7440-42-8	LA-505-411	U		<0.65		mg/kg	1	0.65	22	04/04/12
ICPMS Prep											**04/10/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J	301		mg/kg	1	0.10	1.0	04/10/12
Nickel	7440-02-0	LA-505-412			8.33		mg/kg	1	0.10	1.0	04/10/12
Silver	7440-22-4	LA-505-412	U		<0.052		mg/kg	1	0.052	0.52	04/10/12

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

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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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428006
SAF# F11-092
Sample ID B2L2Y8

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	B	0.338		mg/kg	1	0.31	3.1	04/10/12
Barium	7440-39-3	LA-505-412		59.1		mg/kg	1	0.21	2.1	04/10/12
Beryllium	7440-41-7	LA-505-412	B	0.321		mg/kg	1	0.10	1.0	04/10/12
Cadmium	7440-43-9	LA-505-412	B	0.214		mg/kg	1	0.052	0.52	04/10/12
Chromium	7440-47-3	LA-505-412	C	6.44		mg/kg	1	0.10	1.0	04/10/12
Cobalt	7440-48-4	LA-505-412		9.82		mg/kg	1	0.052	0.26	04/10/12
Copper	7440-50-8	LA-505-412		17.9		mg/kg	1	0.10	1.0	04/10/12
Vanadium	7440-62-2	LA-505-412		55.5		mg/kg	1	0.21	2.1	04/10/12
Zinc	7440-66-6	LA-505-412		50.9		mg/kg	1	1.0	10	04/10/12
Lead	7439-92-1	LA-505-412		9.56		mg/kg	1	0.052	0.52	04/10/12
Mercury	7439-97-6	LA-505-412	U	<0.052		mg/kg	1	0.052	0.21	04/10/12
Molybdenum	7439-98-7	LA-505-412		0.633		mg/kg	1	0.052	0.52	04/10/12
Strontium	7440-24-6	LA-505-412		29.9		mg/kg	1	0.10	1.0	04/10/12
Tin	7440-31-5	LA-505-412		0.541		mg/kg	1	0.052	0.52	04/10/12
Uranium	7440-61-1	LA-505-412		0.537		mg/kg	1	0.052	0.26	04/10/12
Arsenic	7440-38-2	LA-505-412		3.21		mg/kg	1	0.21	2.1	04/10/12
Selenium	7782-49-2	LA-505-412	B	0.300		mg/kg	0.5	0.26	2.6	04/11/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428007
SAF# F11-092
Sample ID B2L2P4

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/04/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.2		mg/kg	1	1.2	3.8	04/04/12
Chloride	16887-00-6	LA-533-410			49.8		mg/kg	1	3.1	22	04/04/12
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.2	04/04/12
Nitrate-N	NO3-N	LA-533-410	B		1.26		mg/kg	1	0.99	5.3	04/04/12
Sulfate	14808-79-8	LA-533-410	B		11.8		mg/kg	1	5.8	56	04/04/12
Cr(VI) Prep											**04/05/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.095		ug/g	1	0.095	0.47	04/05/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	5.53		mg/kg	1	0.43	2.2	04/04/12
Boron	7440-42-8	LA-505-411	B		0.896		mg/kg	1	0.65	22	04/04/12
ICPMS Prep											**04/10/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J	348		mg/kg	1	0.10	1.0	04/10/12
Nickel	7440-02-0	LA-505-412			9.78		mg/kg	1	0.10	1.0	04/10/12
Silver	7440-22-4	LA-505-412	U		<0.051		mg/kg	1	0.051	0.51	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428007
SAF# F11-092
Sample ID B2L2P4

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U	<0.30		mg/kg	1	0.30	3.0	04/10/12
Barium	7440-39-3	LA-505-412		63.7		mg/kg	1	0.20	2.0	04/10/12
Beryllium	7440-41-7	LA-505-412	B	0.360		mg/kg	1	0.10	1.0	04/10/12
Cadmium	7440-43-9	LA-505-412	B	0.0728		mg/kg	1	0.051	0.51	04/10/12
Chromium	7440-47-3	LA-505-412	C	6.71		mg/kg	1	0.10	1.0	04/10/12
Cobalt	7440-48-4	LA-505-412		10.6		mg/kg	1	0.051	0.25	04/10/12
Copper	7440-50-8	LA-505-412		18.0		mg/kg	1	0.10	1.0	04/10/12
Vanadium	7440-62-2	LA-505-412		60.6		mg/kg	1	0.20	2.0	04/10/12
Zinc	7440-66-6	LA-505-412		47.5		mg/kg	1	1.0	10	04/10/12
Lead	7439-92-1	LA-505-412		4.86		mg/kg	1	0.051	0.51	04/10/12
Mercury	7439-97-6	LA-505-412	U	<0.051		mg/kg	1	0.051	0.20	04/10/12
Molybdenum	7439-98-7	LA-505-412	B	0.458		mg/kg	1	0.051	0.51	04/10/12
Strontium	7440-24-6	LA-505-412		30.8		mg/kg	1	0.10	1.0	04/10/12
Tin	7440-31-5	LA-505-412	B	0.505		mg/kg	1	0.051	0.51	04/10/12
Uranium	7440-61-1	LA-505-412		0.520		mg/kg	1	0.051	0.25	04/10/12
Arsenic	7440-38-2	LA-505-412		2.66		mg/kg	1	0.20	2.0	04/10/12
Selenium	7782-49-2	LA-505-412	B	0.300		mg/kg	0.5	0.25	2.5	04/11/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428008
SAF# F11-092
Sample ID B2L2Y2

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/04/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.1		mg/kg	1	1.1	3.7	04/04/12
Chloride	16887-00-6	LA-533-410	U		<3.0		mg/kg	1	3.0	21	04/04/12
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.1	04/04/12
Nitrate-N	NO3-N	LA-533-410	U		<0.97		mg/kg	1	0.97	5.2	04/04/12
Sulfate	14808-79-8	LA-533-410	B		5.87		mg/kg	1	5.7	55	04/04/12
Cr(VI) Prep											**04/05/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.099		ug/g	1	0.099	0.49	04/05/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	2.70		mg/kg	1	0.42	2.1	04/04/12
Boron	7440-42-8	LA-505-411	U		<0.63		mg/kg	1	0.63	22	04/04/12
ICPMS Prep											**04/10/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J	222		mg/kg	1	0.11	1.1	04/10/12
Nickel	7440-02-0	LA-505-412			4.53		mg/kg	1	0.11	1.1	04/10/12
Silver	7440-22-4	LA-505-412	U		<0.056		mg/kg	1	0.056	0.56	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428008
SAF# F11-092
Sample ID B2L2Y2

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U		<0.34		mg/kg	1	0.34	3.4	04/10/12
Barium	7440-39-3	LA-505-412			41.1		mg/kg	1	0.22	2.2	04/10/12
Beryllium	7440-41-7	LA-505-412	B		0.177		mg/kg	1	0.11	1.1	04/10/12
Cadmium	7440-43-9	LA-505-412	U		<0.056		mg/kg	1	0.056	0.56	04/10/12
Chromium	7440-47-3	LA-505-412	C	J	2.43		mg/kg	1	0.11	1.1	04/10/12
Cobalt	7440-48-4	LA-505-412			7.86		mg/kg	1	0.056	0.28	04/10/12
Copper	7440-50-8	LA-505-412			13.7		mg/kg	1	0.11	1.1	04/10/12
Vanadium	7440-62-2	LA-505-412			41.5		mg/kg	1	0.22	2.2	04/10/12
Zinc	7440-66-6	LA-505-412			31.4		mg/kg	1	1.1	11	04/10/12
Lead	7439-92-1	LA-505-412			1.55		mg/kg	1	0.056	0.56	04/10/12
Mercury	7439-97-6	LA-505-412	U		<0.056		mg/kg	1	0.056	0.22	04/10/12
Molybdenum	7439-98-7	LA-505-412	B		0.303		mg/kg	1	0.056	0.56	04/10/12
Strontium	7440-24-6	LA-505-412			20.2		mg/kg	1	0.11	1.1	04/10/12
Tin	7440-31-5	LA-505-412	B		0.320		mg/kg	1	0.056	0.56	04/10/12
Uranium	7440-61-1	LA-505-412			0.291		mg/kg	1	0.056	0.28	04/10/12
Arsenic	7440-38-2	LA-505-412	B		0.944		mg/kg	1	0.22	2.2	04/10/12
Selenium	7782-49-2	LA-505-412	U		<0.28		mg/kg	0.5	0.28	2.8	04/11/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428009
SAF# F11-092
Sample ID B2L2N5

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/04/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.2		mg/kg	1	1.2	3.9	04/04/12
Chloride	16887-00-6	LA-533-410	B		5.07		mg/kg	1	3.1	22	04/04/12
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.3	04/04/12
Nitrate-N	NO3-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.3	04/04/12
Sulfate	14808-79-8	LA-533-410	B		13.0		mg/kg	1	5.9	56	04/04/12
Cr(VI) Prep											**04/05/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.098		ug/g	1	0.098	0.49	04/05/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	7.29		mg/kg	1	0.44	2.2	04/04/12
Boron	7440-42-8	LA-505-411	U		<0.66		mg/kg	1	0.66	22	04/04/12
ICPMS Prep											**04/10/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J	291		mg/kg	1	0.12	1.2	04/10/12
Nickel	7440-02-0	LA-505-412			7.45		mg/kg	1	0.12	1.2	04/10/12
Silver	7440-22-4	LA-505-412	U		<0.060		mg/kg	1	0.060	0.60	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428009
SAF# F11-092
Sample ID B2L2N5

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U	<0.36		mg/kg	1	0.36	3.6	04/10/12
Barium	7440-39-3	LA-505-412		50.3		mg/kg	1	0.24	2.4	04/10/12
Beryllium	7440-41-7	LA-505-412	B	0.322		mg/kg	1	0.12	1.2	04/10/12
Cadmium	7440-43-9	LA-505-412	B	0.0973		mg/kg	1	0.060	0.60	04/10/12
Chromium	7440-47-3	LA-505-412	C	5.56		mg/kg	1	0.12	1.2	04/10/12
Cobalt	7440-48-4	LA-505-412		9.01		mg/kg	1	0.060	0.30	04/10/12
Copper	7440-50-8	LA-505-412		15.2		mg/kg	1	0.12	1.2	04/10/12
Vanadium	7440-62-2	LA-505-412		47.7		mg/kg	1	0.24	2.4	04/10/12
Zinc	7440-66-6	LA-505-412		38.7		mg/kg	1	1.2	12	04/10/12
Lead	7439-92-1	LA-505-412		3.59		mg/kg	1	0.060	0.60	04/10/12
Mercury	7439-97-6	LA-505-412	U	<0.060		mg/kg	1	0.060	0.24	04/10/12
Molybdenum	7439-98-7	LA-505-412	B	0.310		mg/kg	1	0.060	0.60	04/10/12
Strontium	7440-24-6	LA-505-412		25.4		mg/kg	1	0.12	1.2	04/10/12
Tin	7440-31-5	LA-505-412	B	0.402		mg/kg	1	0.060	0.60	04/10/12
Uranium	7440-61-1	LA-505-412		0.442		mg/kg	1	0.060	0.30	04/10/12
Arsenic	7440-38-2	LA-505-412	B	1.95		mg/kg	1	0.24	2.4	04/10/12
Selenium	7782-49-2	LA-505-412	U	<0.30		mg/kg	0.5	0.30	3.0	04/11/12

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

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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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428010
SAF# F11-092
Sample ID B2L2X3

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/04/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.2		mg/kg	1	1.2	4.0	04/04/12
Chloride	16887-00-6	LA-533-410	B		6.74		mg/kg	1	3.2	22	04/04/12
Nitrite-N	NO2-N	LA-533-410	U		<1.1		mg/kg	1	1.1	5.4	04/04/12
Nitrate-N	NO3-N	LA-533-410	B		1.47		mg/kg	1	1.0	5.4	04/04/12
Sulfate	14808-79-8	LA-533-410	U		<6.0		mg/kg	1	6.0	58	04/04/12
Cr(VI) Prep											**04/05/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.10		ug/g	1	0.10	0.50	04/05/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	6.20		mg/kg	1	0.44	2.2	04/04/12
Boron	7440-42-8	LA-505-411	U		<0.66		mg/kg	1	0.66	23	04/04/12
ICPMS Prep											**04/10/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J	298		mg/kg	1	0.11	1.1	04/10/12
Nickel	7440-02-0	LA-505-412			7.61		mg/kg	1	0.11	1.1	04/10/12
Silver	7440-22-4	LA-505-412	U		<0.056		mg/kg	1	0.056	0.56	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428010
SAF# F11-092
Sample ID B2L2X3

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U	<0.33		mg/kg	1	0.33	3.3	04/10/12
Barium	7440-39-3	LA-505-412		59.9		mg/kg	1	0.22	2.2	04/10/12
Beryllium	7440-41-7	LA-505-412	B	0.294		mg/kg	1	0.11	1.1	04/10/12
Cadmium	7440-43-9	LA-505-412	B	0.0746		mg/kg	1	0.056	0.56	04/10/12
Chromium	7440-47-3	LA-505-412	C	6.36		mg/kg	1	0.11	1.1	04/10/12
Cobalt	7440-48-4	LA-505-412		8.64		mg/kg	1	0.056	0.28	04/10/12
Copper	7440-50-8	LA-505-412		15.9		mg/kg	1	0.11	1.1	04/10/12
Vanadium	7440-62-2	LA-505-412		43.9		mg/kg	1	0.22	2.2	04/10/12
Zinc	7440-66-6	LA-505-412		38.1		mg/kg	1	1.1	11	04/10/12
Lead	7439-92-1	LA-505-412		4.03		mg/kg	1	0.056	0.56	04/10/12
Mercury	7439-97-6	LA-505-412	U	<0.056		mg/kg	1	0.056	0.22	04/10/12
Molybdenum	7439-98-7	LA-505-412	B	0.312		mg/kg	1	0.056	0.56	04/10/12
Strontium	7440-24-6	LA-505-412		24.4		mg/kg	1	0.11	1.1	04/10/12
Tin	7440-31-5	LA-505-412	B	0.376		mg/kg	1	0.056	0.56	04/10/12
Uranium	7440-61-1	LA-505-412		0.498		mg/kg	1	0.056	0.28	04/10/12
Arsenic	7440-38-2	LA-505-412		2.31		mg/kg	1	0.22	2.2	04/10/12
Selenium	7782-49-2	LA-505-412	U	<0.28		mg/kg	0.5	0.28	2.8	04/11/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428011
SAF# F11-092
Sample ID B2L2T4

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/04/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.1		mg/kg	1	1.1	3.6	04/04/12
Chloride	16887-00-6	LA-533-410	U		<2.9		mg/kg	1	2.9	20	04/04/12
Nitrite-N	NO2-N	LA-533-410	U		<0.95		mg/kg	1	0.95	4.9	04/04/12
Nitrate-N	NO3-N	LA-533-410	U		<0.92		mg/kg	1	0.92	4.9	04/04/12
Sulfate	14808-79-8	LA-533-410	U		<5.4		mg/kg	1	5.4	52	04/04/12
Cr(VI) Prep											**04/10/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.097		ug/g	1	0.097	0.49	04/11/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411	U	UJ	<0.40		mg/kg	1	0.40	2.0	04/04/12
Boron	7440-42-8	LA-505-411	U		<0.60		mg/kg	1	0.60	20	04/04/12
ICPMS Prep											**04/10/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J	5.51		mg/kg	1	0.11	1.1	04/10/12
Nickel	7440-02-0	LA-505-412	U		<0.11		mg/kg	1	0.11	1.1	04/10/12
Silver	7440-22-4	LA-505-412	U		<0.053		mg/kg	1	0.053	0.53	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428011
SAF# F11-092
Sample ID B2L2T4

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U		<0.32		mg/kg	1	0.32	3.2	04/10/12
Barium	7440-39-3	LA-505-412			2.33		mg/kg	1	0.21	2.1	04/10/12
Beryllium	7440-41-7	LA-505-412	U		<0.11		mg/kg	1	0.11	1.1	04/10/12
Cadmium	7440-43-9	LA-505-412	U		<0.053		mg/kg	1	0.053	0.53	04/10/12
Chromium	7440-47-3	LA-505-412	BC	1.0U	0.775		mg/kg	1	0.11	1.1	04/10/12
Cobalt	7440-48-4	LA-505-412	B		0.0852		mg/kg	1	0.053	0.27	04/10/12
Copper	7440-50-8	LA-505-412	U		<0.11		mg/kg	1	0.11	1.1	04/10/12
Vanadium	7440-62-2	LA-505-412	BC	2.0U	1.97		mg/kg	1	0.21	2.1	04/10/12
Zinc	7440-66-6	LA-505-412	U		<1.1		mg/kg	1	1.1	11	04/10/12
Lead	7439-92-1	LA-505-412	B		0.348		mg/kg	1	0.053	0.53	04/10/12
Mercury	7439-97-6	LA-505-412	U		<0.053		mg/kg	1	0.053	0.21	04/10/12
Molybdenum	7439-98-7	LA-505-412	U		<0.053		mg/kg	1	0.053	0.53	04/10/12
Strontium	7440-24-6	LA-505-412	B		0.493		mg/kg	1	0.11	1.1	04/10/12
Tin	7440-31-5	LA-505-412	U		<0.053		mg/kg	1	0.053	0.53	04/10/12
Uranium	7440-61-1	LA-505-412	B		0.0703		mg/kg	1	0.053	0.27	04/10/12
Arsenic	7440-38-2	LA-505-412	U		<0.21		mg/kg	1	0.21	2.1	04/10/12
Selenium	7782-49-2	LA-505-412	U		<0.27		mg/kg	0.5	0.27	2.7	04/11/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428012
SAF# F11-092
Sample ID B2L2V2

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/04/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.2		mg/kg	1	1.2	3.9	04/04/12
Chloride	16887-00-6	LA-533-410	B		21.2		mg/kg	1	3.1	22	04/04/12
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.3	04/04/12
Nitrate-N	NO3-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.3	04/04/12
Sulfate	14808-79-8	LA-533-410	B		19.9		mg/kg	1	5.9	56	04/04/12
Cr(VI) Prep											**04/10/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.10		ug/g	1	0.10	0.50	04/11/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	7.30		mg/kg	1	0.43	2.2	04/04/12
Boron	7440-42-8	LA-505-411	U		<0.65		mg/kg	1	0.65	22	04/04/12
ICPMS Prep											**04/10/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J	279		mg/kg	1	0.10	1.0	04/10/12
Nickel	7440-02-0	LA-505-412			7.27		mg/kg	1	0.10	1.0	04/10/12
Silver	7440-22-4	LA-505-412	U		<0.052		mg/kg	1	0.052	0.52	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428012
SAF# F11-092
Sample ID B2L2V2

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U	<0.31		mg/kg	1	0.31	3.1	04/10/12
Barium	7440-39-3	LA-505-412		61.1		mg/kg	1	0.21	2.1	04/10/12
Beryllium	7440-41-7	LA-505-412	B	0.339		mg/kg	1	0.10	1.0	04/10/12
Cadmium	7440-43-9	LA-505-412	B	0.0814		mg/kg	1	0.052	0.52	04/10/12
Chromium	7440-47-3	LA-505-412	C	5.29		mg/kg	1	0.10	1.0	04/10/12
Cobalt	7440-48-4	LA-505-412		8.31		mg/kg	1	0.052	0.26	04/10/12
Copper	7440-50-8	LA-505-412		15.7		mg/kg	1	0.10	1.0	04/10/12
Vanadium	7440-62-2	LA-505-412		42.3		mg/kg	1	0.21	2.1	04/10/12
Zinc	7440-66-6	LA-505-412		40.7		mg/kg	1	1.0	10	04/10/12
Lead	7439-92-1	LA-505-412		4.07		mg/kg	1	0.052	0.52	04/10/12
Mercury	7439-97-6	LA-505-412	U	<0.052		mg/kg	1	0.052	0.21	04/10/12
Molybdenum	7439-98-7	LA-505-412	B	0.270		mg/kg	1	0.052	0.52	04/10/12
Strontium	7440-24-6	LA-505-412		30.8		mg/kg	1	0.10	1.0	04/10/12
Tin	7440-31-5	LA-505-412	B	0.477		mg/kg	1	0.052	0.52	04/10/12
Uranium	7440-61-1	LA-505-412		0.477		mg/kg	1	0.052	0.26	04/10/12
Arsenic	7440-38-2	LA-505-412		2.28		mg/kg	1	0.21	2.1	04/10/12
Selenium	7782-49-2	LA-505-412	B	0.281		mg/kg	0.5	0.26	2.6	04/11/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
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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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428013
SAF# F11-092
Sample ID B2L2T9

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/04/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.1		mg/kg	1	1.1	3.7	04/04/12
Chloride	16887-00-6	LA-533-410	U		<3.0		mg/kg	1	3.0	21	04/04/12
Nitrite-N	NO2-N	LA-533-410	U		<0.99		mg/kg	1	0.99	5.1	04/04/12
Nitrate-N	NO3-N	LA-533-410	U		<0.96		mg/kg	1	0.96	5.1	04/04/12
Sulfate	14808-79-8	LA-533-410	U		<5.7		mg/kg	1	5.7	54	04/04/12
Cr(VI) Prep											**04/10/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.092		ug/g	1	0.092	0.46	04/11/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	2.90		mg/kg	1	0.42	2.1	04/04/12
Boron	7440-42-8	LA-505-411	U		<0.63		mg/kg	1	0.63	22	04/04/12
ICPMS Prep											**04/10/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J	210		mg/kg	1	0.096	0.96	04/10/12
Nickel	7440-02-0	LA-505-412			5.61		mg/kg	1	0.096	0.96	04/10/12
Silver	7440-22-4	LA-505-412	U		<0.048		mg/kg	1	0.048	0.48	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
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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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428013
SAF# F11-092
Sample ID B2L2T9

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U		<0.29		mg/kg	1	0.29	2.9	04/10/12
Barium	7440-39-3	LA-505-412			43.8		mg/kg	1	0.19	1.9	04/10/12
Beryllium	7440-41-7	LA-505-412	B		0.228		mg/kg	1	0.096	0.96	04/10/12
Cadmium	7440-43-9	LA-505-412	U		<0.048		mg/kg	1	0.048	0.48	04/10/12
Chromium	7440-47-3	LA-505-412	C	J	2.60		mg/kg	1	0.096	0.96	04/10/12
Cobalt	7440-48-4	LA-505-412			7.32		mg/kg	1	0.048	0.24	04/10/12
Copper	7440-50-8	LA-505-412			13.8		mg/kg	1	0.096	0.96	04/10/12
Vanadium	7440-62-2	LA-505-412	C		19.9		mg/kg	1	0.19	1.9	04/10/12
Zinc	7440-66-6	LA-505-412			25.6		mg/kg	1	0.96	9.6	04/10/12
Lead	7439-92-1	LA-505-412			2.07		mg/kg	1	0.048	0.48	04/10/12
Mercury	7439-97-6	LA-505-412	U		<0.048		mg/kg	1	0.048	0.19	04/10/12
Molybdenum	7439-98-7	LA-505-412	B		0.147		mg/kg	1	0.048	0.48	04/10/12
Strontium	7440-24-6	LA-505-412			20.9		mg/kg	1	0.096	0.96	04/10/12
Tin	7440-31-5	LA-505-412	B		0.263		mg/kg	1	0.048	0.48	04/10/12
Uranium	7440-61-1	LA-505-412			0.320		mg/kg	1	0.048	0.24	04/10/12
Arsenic	7440-38-2	LA-505-412	B		1.06		mg/kg	1	0.19	1.9	04/10/12
Selenium	7782-49-2	LA-505-412	B		0.280		mg/kg	0.5	0.24	2.4	04/11/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
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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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428014
SAF# F11-092
Sample ID B2L2X6

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/04/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.2		mg/kg	1	1.2	3.8	04/04/12
Chloride	16887-00-6	LA-533-410	U		<3.0		mg/kg	1	3.0	21	04/04/12
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.1	04/04/12
Nitrate-N	NO3-N	LA-533-410	U		<0.97		mg/kg	1	0.97	5.2	04/04/12
Sulfate	14808-79-8	LA-533-410	U		<5.8		mg/kg	1	5.8	55	04/04/12
Cr(VI) Prep											**04/10/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.10		ug/g	1	0.10	0.51	04/11/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	2.84		mg/kg	1	0.42	2.1	04/04/12
Boron	7440-42-8	LA-505-411	U		<0.63		mg/kg	1	0.63	22	04/04/12
ICPMS Prep											**04/10/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J	261		mg/kg	1	0.11	1.1	04/10/12
Nickel	7440-02-0	LA-505-412			5.97		mg/kg	1	0.11	1.1	04/10/12
Silver	7440-22-4	LA-505-412	U		<0.055		mg/kg	1	0.055	0.55	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428014
SAF# F11-092
Sample ID B2L2X6

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U	<0.33		mg/kg	1	0.33	3.3	04/10/12
Barium	7440-39-3	LA-505-412		50.5		mg/kg	1	0.22	2.2	04/10/12
Beryllium	7440-41-7	LA-505-412	B	0.223		mg/kg	1	0.11	1.1	04/10/12
Cadmium	7440-43-9	LA-505-412	B	0.0551		mg/kg	1	0.055	0.55	04/10/12
Chromium	7440-47-3	LA-505-412	C	3.95		mg/kg	1	0.11	1.1	04/10/12
Cobalt	7440-48-4	LA-505-412		8.37		mg/kg	1	0.055	0.28	04/10/12
Copper	7440-50-8	LA-505-412		14.9		mg/kg	1	0.11	1.1	04/10/12
Vanadium	7440-62-2	LA-505-412		47.0		mg/kg	1	0.22	2.2	04/10/12
Zinc	7440-66-6	LA-505-412		35.0		mg/kg	1	1.1	11	04/10/12
Lead	7439-92-1	LA-505-412		2.21		mg/kg	1	0.055	0.55	04/10/12
Mercury	7439-97-6	LA-505-412	U	<0.055		mg/kg	1	0.055	0.22	04/10/12
Molybdenum	7439-98-7	LA-505-412	B	0.284		mg/kg	1	0.055	0.55	04/10/12
Strontium	7440-24-6	LA-505-412		22.8		mg/kg	1	0.11	1.1	04/10/12
Tin	7440-31-5	LA-505-412	B	0.383		mg/kg	1	0.055	0.55	04/10/12
Uranium	7440-61-1	LA-505-412		0.357		mg/kg	1	0.055	0.28	04/10/12
Arsenic	7440-38-2	LA-505-412	B	1.29		mg/kg	1	0.22	2.2	04/10/12
Selenium	7782-49-2	LA-505-412	B	0.312		mg/kg	0.5	0.28	2.8	04/11/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
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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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428015
SAF# F11-092
Sample ID B2L2V5

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/04/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.2		mg/kg	1	1.2	3.8	04/04/12
Chloride	16887-00-6	LA-533-410	U		<3.1		mg/kg	1	3.1	22	04/04/12
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.2	04/04/12
Nitrate-N	NO3-N	LA-533-410	U		<0.99		mg/kg	1	0.99	5.3	04/04/12
Sulfate	14808-79-8	LA-533-410	B		12.9		mg/kg	1	5.9	56	04/04/12
Cr(VI) Prep											**04/10/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.095		ug/g	1	0.095	0.48	04/11/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	6.97		mg/kg	1	0.43	2.2	04/04/12
Boron	7440-42-8	LA-505-411	U		<0.65		mg/kg	1	0.65	22	04/04/12
ICPMS Prep											**04/10/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J	308		mg/kg	1	0.10	1.0	04/10/12
Nickel	7440-02-0	LA-505-412			8.34		mg/kg	1	0.10	1.0	04/10/12
Silver	7440-22-4	LA-505-412	U		<0.051		mg/kg	1	0.051	0.51	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428015
SAF# F11-092
Sample ID B2L2V5

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U	<0.31		mg/kg	1	0.31	3.1	04/10/12
Barium	7440-39-3	LA-505-412		60.8		mg/kg	1	0.20	2.0	04/10/12
Beryllium	7440-41-7	LA-505-412	B	0.301		mg/kg	1	0.10	1.0	04/10/12
Cadmium	7440-43-9	LA-505-412	B	0.0767		mg/kg	1	0.051	0.51	04/10/12
Chromium	7440-47-3	LA-505-412	C	6.77		mg/kg	1	0.10	1.0	04/10/12
Cobalt	7440-48-4	LA-505-412		9.27		mg/kg	1	0.051	0.26	04/10/12
Copper	7440-50-8	LA-505-412		16.5		mg/kg	1	0.10	1.0	04/10/12
Vanadium	7440-62-2	LA-505-412		56.9		mg/kg	1	0.20	2.0	04/10/12
Zinc	7440-66-6	LA-505-412		44.8		mg/kg	1	1.0	10	04/10/12
Lead	7439-92-1	LA-505-412		5.34		mg/kg	1	0.051	0.51	04/10/12
Mercury	7439-97-6	LA-505-412	U	<0.051		mg/kg	1	0.051	0.20	04/10/12
Molybdenum	7439-98-7	LA-505-412	B	0.397		mg/kg	1	0.051	0.51	04/10/12
Strontium	7440-24-6	LA-505-412		31.5		mg/kg	1	0.10	1.0	04/10/12
Tin	7440-31-5	LA-505-412	B	0.494		mg/kg	1	0.051	0.51	04/10/12
Uranium	7440-61-1	LA-505-412		0.467		mg/kg	1	0.051	0.26	04/10/12
Arsenic	7440-38-2	LA-505-412		2.77		mg/kg	1	0.20	2.0	04/10/12
Selenium	7782-49-2	LA-505-412	B	0.267		mg/kg	0.5	0.26	2.6	04/11/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428016
SAF# F11-092
Sample ID B2L2X0

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/04/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.2		mg/kg	1	1.2	3.9	04/04/12
Chloride	16887-00-6	LA-533-410	U		<3.1		mg/kg	1	3.1	22	04/04/12
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.3	04/04/12
Nitrate-N	NO3-N	LA-533-410	B		1.06		mg/kg	1	1.0	5.3	04/04/12
Sulfate	14808-79-8	LA-533-410	B		7.10		mg/kg	1	5.9	56	04/04/12
Cr(VI) Prep											**04/10/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.091		ug/g	1	0.091	0.45	04/11/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	6.94		mg/kg	1	0.43	2.2	04/04/12
Boron	7440-42-8	LA-505-411	U		<0.65		mg/kg	1	0.65	22	04/04/12
ICPMS Prep											**04/10/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J	276		mg/kg	1	0.099	0.99	04/10/12
Nickel	7440-02-0	LA-505-412			7.01		mg/kg	1	0.099	0.99	04/10/12
Silver	7440-22-4	LA-505-412	U		<0.049		mg/kg	1	0.049	0.49	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428016
SAF# F11-092
Sample ID B2L2X0

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U	<0.30		mg/kg	1	0.30	3.0	04/10/12
Barium	7440-39-3	LA-505-412		54.9		mg/kg	1	0.20	2.0	04/10/12
Beryllium	7440-41-7	LA-505-412	B	0.247		mg/kg	1	0.099	0.99	04/10/12
Cadmium	7440-43-9	LA-505-412	B	0.0790		mg/kg	1	0.049	0.49	04/10/12
Chromium	7440-47-3	LA-505-412	C	6.26		mg/kg	1	0.099	0.99	04/10/12
Cobalt	7440-48-4	LA-505-412		8.12		mg/kg	1	0.049	0.25	04/10/12
Copper	7440-50-8	LA-505-412		14.6		mg/kg	1	0.099	0.99	04/10/12
Vanadium	7440-62-2	LA-505-412		48.0		mg/kg	1	0.20	2.0	04/10/12
Zinc	7440-66-6	LA-505-412		40.5		mg/kg	1	0.99	9.9	04/10/12
Lead	7439-92-1	LA-505-412		4.04		mg/kg	1	0.049	0.49	04/10/12
Mercury	7439-97-6	LA-505-412	U	<0.049		mg/kg	1	0.049	0.20	04/10/12
Molybdenum	7439-98-7	LA-505-412	B	0.334		mg/kg	1	0.049	0.49	04/10/12
Strontium	7440-24-6	LA-505-412		23.2		mg/kg	1	0.099	0.99	04/10/12
Tin	7440-31-5	LA-505-412	B	0.375		mg/kg	1	0.049	0.49	04/10/12
Uranium	7440-61-1	LA-505-412		0.373		mg/kg	1	0.049	0.25	04/10/12
Arsenic	7440-38-2	LA-505-412		2.21		mg/kg	1	0.20	2.0	04/10/12
Selenium	7782-49-2	LA-505-412	U	<0.25		mg/kg	0.5	0.25	2.5	04/11/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428017
SAF# F11-092
Sample ID B2L2P7

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/04/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.2		mg/kg	1	1.2	3.8	04/04/12
Chloride	16887-00-6	LA-533-410	B		6.68		mg/kg	1	3.0	21	04/04/12
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.1	04/04/12
Nitrate-N	NO3-N	LA-533-410	U		<0.98		mg/kg	1	0.98	5.2	04/04/12
Sulfate	14808-79-8	LA-533-410	U		<5.8		mg/kg	1	5.8	55	04/04/12
Cr(VI) Prep											**04/10/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.094		ug/g	1	0.094	0.47	04/11/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	4.25		mg/kg	1	0.42	2.1	04/04/12
Boron	7440-42-8	LA-505-411	U		<0.64		mg/kg	1	0.64	22	04/04/12
ICPMS Prep											**04/10/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J	286		mg/kg	1	0.12	1.2	04/10/12
Nickel	7440-02-0	LA-505-412			7.91		mg/kg	1	0.12	1.2	04/10/12
Silver	7440-22-4	LA-505-412	U		<0.058		mg/kg	1	0.058	0.58	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428017
SAF# F11-092
Sample ID B2L2P7

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U	<0.35		mg/kg	1	0.35	3.5	04/10/12
Barium	7440-39-3	LA-505-412		49.6		mg/kg	1	0.23	2.3	04/10/12
Beryllium	7440-41-7	LA-505-412	B	0.303		mg/kg	1	0.12	1.2	04/10/12
Cadmium	7440-43-9	LA-505-412	U	<0.058		mg/kg	1	0.058	0.58	04/10/12
Chromium	7440-47-3	LA-505-412	C	5.24		mg/kg	1	0.12	1.2	04/10/12
Cobalt	7440-48-4	LA-505-412		10.4		mg/kg	1	0.058	0.29	04/10/12
Copper	7440-50-8	LA-505-412		19.5		mg/kg	1	0.12	1.2	04/10/12
Vanadium	7440-62-2	LA-505-412		60.9		mg/kg	1	0.23	2.3	04/10/12
Zinc	7440-66-6	LA-505-412		43.2		mg/kg	1	1.2	12	04/10/12
Lead	7439-92-1	LA-505-412		3.92		mg/kg	1	0.058	0.58	04/10/12
Mercury	7439-97-6	LA-505-412	U	<0.058		mg/kg	1	0.058	0.23	04/10/12
Molybdenum	7439-98-7	LA-505-412	B	0.378		mg/kg	1	0.058	0.58	04/10/12
Strontium	7440-24-6	LA-505-412		26.2		mg/kg	1	0.12	1.2	04/10/12
Tin	7440-31-5	LA-505-412	B	0.487		mg/kg	1	0.058	0.58	04/10/12
Uranium	7440-61-1	LA-505-412		0.476		mg/kg	1	0.058	0.29	04/10/12
Arsenic	7440-38-2	LA-505-412	B	2.17		mg/kg	1	0.23	2.3	04/10/12
Selenium	7782-49-2	LA-505-412	B	0.315		mg/kg	0.5	0.29	2.9	04/11/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428018
SAF# F11-092
Sample ID B2L2X9

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC											**04/04/12**
Anions by IC											
Fluoride	16984-48-8	LA-533-410	U		<1.1		mg/kg	1	1.1	3.8	04/04/12
Chloride	16887-00-6	LA-533-410	U		<3.0		mg/kg	1	3.0	21	04/04/12
Nitrite-N	NO2-N	LA-533-410	U		<1.0		mg/kg	1	1.0	5.1	04/04/12
Nitrate-N	NO3-N	LA-533-410	U		<0.97		mg/kg	1	0.97	5.2	04/04/12
Sulfate	14808-79-8	LA-533-410	B		9.95		mg/kg	1	5.7	55	04/04/12
Cr(VI) Prep											**04/10/12**
Cr(VI)											
Hexavalent chromium	18540-29-9	LA-265-403	U		<0.10		ug/g	1	0.10	0.52	04/11/12
ICP Prep											**04/03/12**
ICP-AES											
Lithium	7439-93-2	LA-505-411		J-	2.88		mg/kg	1	0.42	2.1	04/04/12
Boron	7440-42-8	LA-505-411	U		<0.63		mg/kg	1	0.63	22	04/04/12
ICPMS Prep											**04/10/12**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J	222		mg/kg	1	0.11	1.1	04/10/12
Nickel	7440-02-0	LA-505-412			5.37		mg/kg	1	0.11	1.1	04/10/12
Silver	7440-22-4	LA-505-412	U		<0.057		mg/kg	1	0.057	0.57	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428018
SAF# F11-092
Sample ID B2L2X9

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Antimony	7440-36-0	LA-505-412	U	<0.34		mg/kg	1	0.34	3.4	04/10/12
Barium	7440-39-3	LA-505-412		46.9		mg/kg	1	0.23	2.3	04/10/12
Beryllium	7440-41-7	LA-505-412	B	0.211		mg/kg	1	0.11	1.1	04/10/12
Cadmium	7440-43-9	LA-505-412	U	<0.057		mg/kg	1	0.057	0.57	04/10/12
Chromium	7440-47-3	LA-505-412	C	3.06		mg/kg	1	0.11	1.1	04/10/12
Cobalt	7440-48-4	LA-505-412		7.41		mg/kg	1	0.057	0.29	04/10/12
Copper	7440-50-8	LA-505-412		14.6		mg/kg	1	0.11	1.1	04/10/12
Vanadium	7440-62-2	LA-505-412		35.4		mg/kg	1	0.23	2.3	04/10/12
Zinc	7440-66-6	LA-505-412		32.4		mg/kg	1	1.1	11	04/10/12
Lead	7439-92-1	LA-505-412		2.33		mg/kg	1	0.057	0.57	04/10/12
Mercury	7439-97-6	LA-505-412	U	<0.057		mg/kg	1	0.057	0.23	04/10/12
Molybdenum	7439-98-7	LA-505-412	B	0.225		mg/kg	1	0.057	0.57	04/10/12
Strontium	7440-24-6	LA-505-412		22.9		mg/kg	1	0.11	1.1	04/10/12
Tin	7440-31-5	LA-505-412	B	0.313		mg/kg	1	0.057	0.57	04/10/12
Uranium	7440-61-1	LA-505-412		0.329		mg/kg	1	0.057	0.29	04/10/12
Arsenic	7440-38-2	LA-505-412	B	1.02		mg/kg	1	0.23	2.3	04/10/12
Selenium	7782-49-2	LA-505-412	U	<0.29		mg/kg	0.5	0.29	2.9	04/11/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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
WSCF120424

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
WSCF120424

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):

- All applicable QC controls are within the established limits.

ICP-AES 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):

- All 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 – MS / MSD Relative Percent Difference (RPD) is outside established laboratory limits. The quality control report was flagged for RPD failure. Affected sample results in this batch were "N" flagged.
- Chromium and Vanadium – 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.

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

- All applicable QC controls are within the established limits.

Radiochemistry Comments

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

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

- Gamma Energy Analysis:
  - All applicable QC controls are within the established limits.
- Americium-241:
  - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
  - All other applicable QC controls are within the established limits.

Attachment 2
Narrative
WSCF120424

- Isotopic Plutonium analysis:
  - Plutionium-239/240 – The Blank is less than two times the RDL. "B" Flag not required.
  - All other applicable QC controls are within the established limits.
- Isotopic Uranium analysis:
  - Uranium-234 and Uranium-238 – The Blank is less than two times the RDL. "B" Flag not required.
  - Uranium-235 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
  - All other applicable QC controls are within the established limits.
- Strontium-89/90:
  - All 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			F11-092-257	PAGE 1 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION Area AH In-Process Sample #1	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	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: 120424

PRESERVATION	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2M3	SOIL	MAR 28 2012	1100	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME MAR 28 2012 1500	RECEIVED BY/STORED IN SSU-1	DATE/TIME MAR 28 2012 1500	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME MAR 29 2012 0800	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME MAR 29 2012 0800	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME MAR 29 2012 0815	RECEIVED BY/STORED IN Cynthia R Johnson	DATE/TIME MAR 29 2012 0815	
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 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-257	PAGE 2 OF 2
OLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days
AMPLING LOCATION Area AH In-Process Sample #1	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
CE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
HIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

PECIAL INSTRUCTIONS

Vest Side Sample #1 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI pplies 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, eryllium, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12 - DAY

RINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-260	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION: Area AH In-Process Sample #2	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-74-	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None	
HOLDING TIME	6 Months	30 Days	6 Months	6 Months	
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P	
NO. OF CONTAINER(S)	1	1	1	1	
VOLUME	120mL	120mL	500mL	120mL	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2M6 2	SOIL	MAR 28 2012	1120	✓	✓	✓	✓

12-044

CHAIN OF POSSESSION	DATE/TIME	SIGN/ PRINT NAMES	DATE/TIME
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	MAR 28 2012 1500	RECEIVED BY/STORED IN: SSU-1	MAR 28 2012 1500
RELINQUISHED BY/REMOVED FROM: SSU-1	MAR 29 2012 0800	RECEIVED BY/STORED IN: KG Patterson	MAR 29 2012 0800
RELINQUISHED BY/REMOVED FROM: KG Patterson, CHPRC	MAR 29 2012 0815	RECEIVED BY/STORED IN: Cynthia R Johnson	MAR 29 2012 0815
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-260	PAGE 2 OF 2
LLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days
MPLING LOCATION ea AH In-Process Sample #2	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11 092	AIR QUALITY ☐	
CHEST NO.	FIELD LOGBOOK NO. HNF -N-507-24-	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
IPPED TO aste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

ECIAL INSTRUCTIONS

est Side Sample #2 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI plies to this SAF.

) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, ryllium, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12- 044

NTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-263	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION: Area AH In-Process Sample #3	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2M9 3	SOIL	MAR 28 2012	1300	✓	✓	✓	✓

TA 12- 047

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: MAR 28 2012 1500	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: MAR 28 2012 1500
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: MAR 29 2012 0800	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: MAR 29 2012 0800
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: MAR 29 2012 0815	RECEIVED BY/STORED IN: Cynthia R Johnson	DATE/TIME: MAR 29 2012 0815
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-263	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION Area AH In-Process Sample #3	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

West Side Sample #3 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12- 044

PRINTED ON 3/26/2012 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-266	PAGE 1 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION Area AH In-Process Sample #4	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-21	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	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			Cool~4C	Cool~4C	None	None
HOLDING TIME			6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER			G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)			1	1	1	1
VOLUME			120mL	120mL	500mL	120mL
SAMPLE ANALYSIS			SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2N2 4	SOIL	MAR 28 2012	1307	✓	✓	✓	✓

12-043

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME MAR 28 2012 1500	RECEIVED BY/STORED IN SSU-1	DATE/TIME MAR 28 2012 1500	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME MAR 29 2012 0800	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME MAR 29 2012 0800	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME MAR 29 2012 0815	RECEIVED BY/STORED IN Cynthia R Johnson	DATE/TIME MAR 29 2012 0815	
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 3/26/2012 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-266	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION Area AH In-Process Sample #4	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

West Side Sample #4 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-318	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION: Area AH 100-K-62 Sample #1	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2W4 5	SOIL	MAR 28 2012	1330	✓	✓	✓	✓

CPVL- 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: MAR 28 2012 1500	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: MAR 28 2012 1500	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: MAR 29 2012 0800	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: MAR 29 2012 0800	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: MAR 29 2012 0815	RECEIVED BY/STORED IN: Cynthia R Johnson	DATE/TIME: MAR 29 2012 0815	
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 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-318	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-62 Sample #1	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-321	PAGE 1 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 35 Days~~ 12 days
SAMPLING LOCATION Area AH 100-K-62 Sample #2	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	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			Cool~4C	Cool~4C	None	None
HOLDING TIME			6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER			G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)			1	1	1	1
VOLUME			120mL	120mL	500mL	120mL
SAMPLE ANALYSIS			SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS
SAMPLE NO.	MATRIX*	SAMPLE DATE SAMPLE TIME				
B2L2W7 6	SOIL	MAR 28 2012 1347	✓	✓	✓	✓

12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME MAR 28 2012 1530	RECEIVED BY/STORED IN SSU-1	DATE/TIME MAR 28 2012 1530	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME MAR 29 2012 0800	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME MAR 29 2012 0800	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME MAR 29 2012 0815	RECEIVED BY/STORED IN Cynthia R Johnson	DATE/TIME MAR 29 2012 0815	
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 3/26/2012

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Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-321	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-62 Sample #2	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days OH 3/23/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-296	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days (3/28/12)
SAMPLING LOCATION: Area AH In-Process Sample #14	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: N/A	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2T2 7	SOIL	MAR 28 2012	1050	✓	✓	✓	✓

TRVL-12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: MAR 28 2012 1500	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: MAR 28 2012 1500
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: MAR 29 2012 1000	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: MAR 29 2012 1000
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: MAR 29 2012 0815	RECEIVED BY/STORED IN: Cynthia R Johnson	DATE/TIME: MAR 29 2012 0815
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/27/2012

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-296	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #14	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH N/A	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

IFA 12- 044

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A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-300	PAGE 1 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION Area AH In-Process Sample #16	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2T6 8	SOIL	MAR 28 2012	~~130~~ 1330	✓	✓	✓	✓

12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME MAR 28 2012 1500	RECEIVED BY/STORED IN SSU-1	DATE/TIME MAR 28 2012 1500	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME MAR 29 2012 0800	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME MAR 29 2012 0800	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME MAR 29 2012 0815	RECEIVED BY/STORED IN Cynthia R Johnson	DATE/TIME MAR 29 2012 0815	
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 3/27/2012 A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST			F11-092-300	PAGE 2 OF 2
COLLECTOR FM Hali CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #16	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 3/29/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PA 12- 044

PRINTED ON 3/27/2012 A-6003-618 (REV 2)

Attachment 2
Narrative
WSCF120428

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
WSCF120428

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):

- All applicable QC controls are within the established limits.

ICP-AES 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):

- All 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):

- Batch QC 198390
  - Selenium – Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged. The quality control report was flagged for RPD failure.
  - Vanadium and Chromium – Detected in the Blank and evaluated. No sample results in this batch were affected. "C" Flags not required.
- Batch QC 198391
  - Manganese – Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - Vanadium and Chromium – 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.

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

- All applicable QC controls are within the established limits.

Radiochemistry Comments

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

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

Attachment 2
Narrative
WSCF120428

- Gamma Energy Analysis:
  - All applicable QC controls are within the established limits.
- Americium-241:
  - Batch QC 198292
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
  - Batch QC 198291
    - The Blank is less than two times the RDL. "B" Flag not required.
  - Batch QC 198290
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Poor reproducibility may be due to sample inhomogeneity. No flags issued.
    - Americium-243 – Tracer recovery did not meet the established laboratory limits for sample B2L2W1 (120428004). No flags issued on sample results. The quality control report was flagged for the failure.
    - All other applicable QC controls are within the established limits.
- Isotopic Plutonium analysis:
  - Batch QC 198290
    - Plutonium-238 - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Poor reproducibility may be due to sample inhomogeneity. No flags issued.
    - Plutonium-239/240 - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Poor reproducibility may be due to sample inhomogeneity. No flags issued.
    - All other applicable QC controls are within the established limits.
- Isotopic Uranium analysis:
  - Batch QC 198292

Attachment 2
Narrative
WSCF120428

- Uranium-235 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
- Uranium-234, Uranium-235 and Uranium-238 - The Blank is less than two times the RDL. "B" Flag not required.

  - Batch QC 198291
    - Uranium-234 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. No flags issued on sample results. The quality control report was flagged for RPD failure.
    - Uranium-234 and Uranium-238 - The Blank is less than two times the RDL. "B" Flag not required.
  - Batch QC 198290
    - Uranium-234 and Uranium-238 – The Blank is less than five times the MDC. "B" Flag not required.
    - All other applicable QC controls are within the established limits.

- Strontium-89/90:
  - Batch QC 198294
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
    - 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			F11-092-312	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 13 Days~~ 7 days 72
SAMPLING LOCATION: Area AH 100-K-46	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	4/1/12 4/1/12
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-2H	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10	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)

120428

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2V8 /	SOIL	APR 01 2012	0906	✓	✓	✓	✓

TRL- 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0700	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0700	
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: APR 02 2012 0845	
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

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-312	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-46	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 4/1/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

TRL 12- 044

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-339	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH 100-K-53 Sample #1	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24-	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2Y5 2	SOIL	APR 01 2012	1216	✓	✓	✓	✓

APL 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: APR 02 2012 0845	
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 3/26/2012

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-339	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-53 Sample #1	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 4/1/11
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023FS20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12- 044

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-272	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH In-Process Sample #6	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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				Cool~4C	Cool~4C	None	None
HOLDING TIME				6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER				G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)				1	1	1	1
VOLUME				120mL	120mL	500mL	120mL
SAMPLE ANALYSIS				SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS
SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2L2N8	3	SOIL	APR 01 2012	1225	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
FM Hall	APR 01 2012 1400	SSU-1	APR 01 2012 1400	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
SSU-1	APR 02 2012 0700	KC Patterson	APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
KC Patterson	APR 02 2012 0845	M. Nelson	APR 02 2012 0845	
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

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-272	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #6	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 4/1/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

East Side Sample #1 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-315	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/11/12
SAMPLING LOCATION: Area AH 119-KE	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2W1 4	SOIL	APR 01 2012	0855	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0720
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson Moers	DATE/TIME: APR 02 2012 0845
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

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Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-315	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 2/11/12
SAMPLING LOCATION Area AH 119-KE	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-34	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

044

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A-6003-61R (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-092-275	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C
SAMPLING LOCATION: Area AH In-Process Sample #7	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24-	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A	

DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12

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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2P1 5	SOIL	APR 01 2012	1237	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0700	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0700	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: APR 02 2012 0845	
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

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-275	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/11/12
SAMPLING LOCATION Area AH In-Process Sample #7	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

East Side Sample #2 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-342	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH 100-K-53 Sample #2	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None	
HOLDING TIME	6 Months	30 Days	6 Months	6 Months	
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P	
NO. OF CONTAINER(S)	1	1	1	1	
VOLUME	120mL	120mL	500mL	120mL	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2L2Y8 6	SOIL	APR 01 2012	1034	✓	✓ ✓ ✓

12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: APR 02 2012 0845	
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

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-342	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND ~~15 Days / 15 Days~~ 24 4/1/12 12 Days
SAMPLING LOCATION Area AH 100-K-53 Sample #2	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092		
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKT 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-278	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 24 4/11/12
SAMPLING LOCATION: Area AH In-Process Sample #8	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2P4 7	SOIL	APR 01 2012	1248	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: APR 01 2012 HCC	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 HCC
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0720
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0825	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: APR 02 2012 0825
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-278	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE BC	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #8	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 4/1/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

East Side Sample #3 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-092-336	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C; DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH 100-K-62 Sample #7	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: [ ]
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 30271RES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2Y2 8	SOIL	APR 01 2012	0948	✓	✓	✓	✓

12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM: KC Patterson	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M Nelson	DATE/TIME: APR 02 2012 0845	
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 3/26/2012

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-336	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION Area AH 100-K-62 Sample #7	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-269	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH In-Process Sample #5	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2N5 9	SOIL	APR 01 2012	1048	✓	✓	✓	✓

12-041

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0720
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: APR 02 2012 0845
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-269	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days. 4/1/12
SAMPLING LOCATION Area AH In-Process Sample #5	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

West Side Sample #5 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-327	PAGE 1 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~45 Days / 15 Days~~ 12 days 04/11/12
SAMPLING LOCATION Area AH 100-K-62 Sample #4	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	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					
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	Cool~4C	Cool~4C	None	None
		HOLDING TIME	6 Months	30 Days	6 Months	6 Months
		TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
		NO. OF CONTAINER(S)	1	1	1	1
		VOLUME	120mL	120mL	500mL	120mL
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2X3 10	SOIL	APR 01 2012	0827	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR 02 2012 0720	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM KC Patterson	DATE/TIME APR 02 2012 0815	RECEIVED BY/STORED IN M. Nelsmkness	DATE/TIME APR 02 2012 0815	
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

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Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-327	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/11/12
SAMPLING LOCATION Area AH 100-K-62 Sample #4	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092		
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-5003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-298	PAGE 1 OF 2
COLLECTOR K. Patterson / CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND ~~15 Days / 15 Days~~ 4/11/12 12 days
SAMPLING LOCATION Area AH In-Process Sample #15	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092		
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH (N/A)	COA 302718ES10	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, OL=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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

TPA-12-044

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2T4 11	SOIL	APR 01 2012	0740	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM K. Patterson	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR 02 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR 02 2012 0700	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME APR 02 2012 0845	RECEIVED BY/STORED IN M. Nelson M. Nelson	DATE/TIME APR 02 2012 0845	
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

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-298	PAGE 2 OF 2
COLLECTOR K. Patterson	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/11/12
SAMPLING LOCATION Area AH In-Process Sample #15	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092		
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH (N/A)	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-306	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH 100-K-6	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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 Solics, 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	Cool~4C	Cool~4C	None	None	
HOLDING TIME	6 Months	30 Days	6 Months	6 Months	
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P	
NO. OF CONTAINER(S)	1	1	1	1	
VOLUME	120mL	120mL	500mL	120mL	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	
SAMPLE NO. / MATRIX*	B2L2V2 12 / SOIL				
SAMPLE DATE / SAMPLE TIME	APR 01 2012 / 1023	✓	✓	✓	✓

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CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0700	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0700	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0815	RECEIVED BY/STORED IN: M. Nelson M. Nelson	DATE/TIME: APR 02 2012 0815	
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 3/26/2012

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-306	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-6	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 24 4/1/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-303	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH In-Process Sample #17	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2T9 13	SOIL	APR 01 2012	0921	✓	✓	✓	✓

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CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FM Hall	APR 01 2012 HCW	SSU-1	APR 01 2012 HCW
SSU-1	APR 02 2012 0720	RC Patterson CHPRC	APR 02 2012 0720
RC Patterson CHPRC	APR 02 2012 0845	M. Nelson M. Nelson	APR 02 2012 0845

SPECIAL INSTRUCTIONS: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-303	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/11/12
SAMPLING LOCATION Area AH In-Process Sample #17	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-330	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 45 Days~~ 12 days
SAMPLING LOCATION: Area AH 100-K-62 Sample #5	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2X6 14	SOIL	APR 01 2012	0921	✓	✓	✓	✓

044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0720
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: APR 02 2012 0845
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-330	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-62 Sample #5	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 4/11/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

044

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-309	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH 132-KE-1	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF -N-507-24-	ACTUAL SAMPLE DEPTH: Surface	COA: 302/18E510	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2V5 15	SOIL	APR 01 2012	1013	✓	✓	✓	✓

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CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: N. Nelson	DATE/TIME: APR 02 2012 0845	
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

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-309	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/11/12
SAMPLING LOCATION Area AH 132-KE-1	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092		
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302/18E510	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-324	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days
SAMPLING LOCATION: Area AH 100-K-62 Sample #3	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10	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	Cool-4C	Cool-4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2X0 16	SOIL	APR 01 2012	0816	✓	✓	✓	✓

12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0825	RECEIVED BY/STORED IN: M Nelson M Nelson	DATE/TIME: APR 02 2012 0825	
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

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A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-324	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-62 Sample #3	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 4/1/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12- 044

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-092-281	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C; DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/16/12
SAMPLING LOCATION: Area AH In-Process Sample #9	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24.	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2P7 17	SOIL	APR 01 2012	1258	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: RC Patterson CHPRC	DATE/TIME: APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM: RC Patterson CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M.Nelson	DATE/TIME: APR 02 2012 0845	
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 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-281	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION Area AH In-Process Sample #9	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

East Side Sample #4 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-333	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: BC	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/3/12
SAMPLING LOCATION: Area AH 100-K-62 Sample #6	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-____-____	ACTUAL SAMPLE DEPTH	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2X9 18	SOIL	APR 01 2012	0934	✓	✓	✓	✓

12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M Nelson	DATE/TIME: APR 02 2012 0845	
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 3/26/2012

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-333	PAGE 2 OF 2
OLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/11/12
AMPLING LOCATION Area AH 100-K-62 Sample #6	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
CE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
HIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

PECIAL INSTRUCTIONS

* The CACN for all analytical work at WSCF laboratory is 403023ES20.LJ** 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, eryllium, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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INTED ON 3/26/2012

A-6003-618 (REV 2)

Appendix 5

Data Validation Supporting Documentation

VALIDATION LEVEL:	A	B	(C)	D	E
PROJECT: 100-K			DATA PACKAGE: VSR12-016		
VALIDATOR: Eyda Hergenreder		LAB: WSCF		DATE: 06-15-2012	
			SDG: WSCF120424, WSCF120428		
ANALYSES PERFORMED					
SW-846/ICP X	SW-846/GFAA	SW-846/Hg		EPA 200.8 X	

SAMPLES/MATRIX Soil samples

SDG WSCF120424: B2L2M3, B2L2M6, B2L2M9, B2L2N2, B2L2W4, B2L2W7, B2L2T2, B2L2T6,

SDG WSCF120428: B2L2V8, B2L2Y5, B2L2N8, B2L2W1, B2L2P1, B2L2Y8, B2L2P4, B2L2Y2, B2L2N5, B2L2X3, B2L2T4, B2L2V2, B2L2T9, B2L2X6, B2L2V5, B2L2X0, B2L2P7, B2L2X9,

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:
WSCF120424: MB Cr 0.133 mg/kg; V 0.292 mg/kg
WSCF120428: batch 198390: MB Cr 0.133 mg/kg; V 0.292 mg/kg
batch 198391: MB Cr 0.562 mg/kg; V 1.52 mg/kg
EB B2L2T2: Mn 7.89 mg/kg; Ba 3.08 mg/kg; Cr 0.317 mg/kg; Co 0.118 mg/kg: V 0.952 mg/kg; Pb 0.419 mg/kg: Mo 0.0659 mg/kg; Sr 0.992 mg/kg; U 0.0892 mg/kg
EB B2L2T4: Mn 5.51 mg/kg; Ba 2.33 mg/kg; Cr 0.775 mg/kg; Co 0.0852 mg/kg; V 1.97 mg/kg; Pb 0.348 mg/kg; Sr 0.493 mg/kg U 0.0703 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:

WSCF120424: Li LCS 68.4%; Se MS 43.9%
WSCF120428: (batch 198171): Li LCS 68.4%;
(batch 198173): Li LCS 63.1%
(batch 198390): Se MS 43.9%
(batch 198391) : Mn MS/MSD 143.8%/64%:

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:

WSCF120424: MS/MSD RPD Se 68%
WSCF120428: (batch 198390): MS/MSD RPD Se 68%

Samples B2L2X6/B2L2T9: RPDs Cr 41%, V 81%; Zn 31%,

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):

More

Appendix 6

Additional Documentation Requested By Client

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120424

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198171	198394	5	BLANK	72449	BLANK		ICP-6010 - All possible metals
198171	198394	7	LCS	72451	LCS		ICP-6010 - All possible metals
198171	198394	8	SAMPLE	120424001	B2L2M3		ICP-6010 - All possible metals
198171	198394	9	MS	72452	B2L2M3(120424001MS)	120424001	ICP-6010 - All possible metals
198171	198394	10	MSD	72453	B2L2M3(120424001MSD)	120424001	ICP-6010 - All possible metals
198171	198394	11	SAMPLE	120424002	B2L2M6		ICP-6010 - All possible metals
198171	198394	12	SAMPLE	120424003	B2L2M9		ICP-6010 - All possible metals
198171	198394	13	SAMPLE	120424004	B2L2N2		ICP-6010 - All possible metals
198171	198394	14	SAMPLE	120424005	B2L2W4		ICP-6010 - All possible metals
198171	198394	15	SAMPLE	120424006	B2L2W7		ICP-6010 - All possible metals
198171	198394	16	SAMPLE	120424007	B2L2T2		ICP-6010 - All possible metals
198171	198394	17	SAMPLE	120424008	B2L2T6		ICP-6010 - All possible metals
198203	198413	1	BLANK	72505	BLANK		Anions by Ion Chromatography (Solid)
198203	198413	3	LCS	72507	LCS		Anions by Ion Chromatography (Solid)
198203	198413	4	MS	72508	B2L2T2(120424007MS)	120424007	Anions by Ion Chromatography (Solid)
198203	198413	5	MSD	72509	B2L2T2(120424007MSD)	120424007	Anions by Ion Chromatography (Solid)
198203	198413	6	DUP	72510	B2L2T2(120424007DUP)	120424007	Anions by Ion Chromatography (Solid)
198203	198413	7	SAMPLE	120424007	B2L2T2		Anions by Ion Chromatography (Solid)
198203	198413	8	SAMPLE	120424001	B2L2M3		Anions by Ion Chromatography (Solid)
198203	198413	9	SAMPLE	120424002	B2L2M6		Anions by Ion Chromatography (Solid)
198203	198413	10	SAMPLE	120424003	B2L2M9		Anions by Ion Chromatography (Solid)
198203	198413	11	SAMPLE	120424004	B2L2N2		Anions by Ion Chromatography (Solid)
198203	198413	12	SAMPLE	120424005	B2L2W4		Anions by Ion Chromatography (Solid)

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120424

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198203	198413	13	SAMPLE	120424006	B2L2W7		Anions by Ion Chromatography (Solid)
198203	198413	14	SAMPLE	120424008	B2L2T6		Anions by Ion Chromatography (Solid)
198390	198430	4	BLANK	72564	BLANK		ICP-2008 MS All possible metal
198390	198430	5	LCS	72565	LCS		ICP-2008 MS All possible metal
198390	198430	6	SAMPLE	120424001	B2L2M3		ICP-2008 MS All possible metal
198390	198430	7	MS	72566	B2L2M3(120424001MS)	120424001	ICP-2008 MS All possible metal
198390	198430	8	MSD	72567	B2L2M3(120424001MSD)	120424001	ICP-2008 MS All possible metal
198390	198430	9	SAMPLE	120424002	B2L2M6		ICP-2008 MS All possible metal
198390	198430	10	SAMPLE	120424003	B2L2M9		ICP-2008 MS All possible metal
198390	198430	11	SAMPLE	120424004	B2L2N2		ICP-2008 MS All possible metal
198390	198430	12	SAMPLE	120424005	B2L2W4		ICP-2008 MS All possible metal
198390	198430	13	SAMPLE	120424006	B2L2W7		ICP-2008 MS All possible metal
198390	198430	14	SAMPLE	120424007	B2L2T2		ICP-2008 MS All possible metal
198390	198430	15	SAMPLE	120424008	B2L2T6		ICP-2008 MS All possible metal
198390	198599	1	LCS	72565	LCS		ICP-2008 MS All possible metal
198390	198599	2	BLANK	72564	BLANK		ICP-2008 MS All possible metal
198390	198599	10	SAMPLE	120424007	B2L2T2		ICP-2008 MS All possible metal
198390	198599	11	SAMPLE	120424008	B2L2T6		ICP-2008 MS All possible metal
198390	198599	12	SAMPLE	120424006	B2L2W7		ICP-2008 MS All possible metal
198390	198599	13	SAMPLE	120424004	B2L2N2		ICP-2008 MS All possible metal
198390	198599	14	SAMPLE	120424005	B2L2W4		ICP-2008 MS All possible metal
198390	198599	15	SAMPLE	120424003	B2L2M9		ICP-2008 MS All possible metal
198390	198599	16	SAMPLE	120424002	B2L2M6		ICP-2008 MS All possible metal

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120424

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198390	198599	17	MSD	72567	B2L2M3(120424001MSD)	120424001	ICP-2008 MS All possible metal
198390	198599	18	MS	72566	B2L2M3(120424001MS)	120424001	ICP-2008 MS All possible metal
198390	198599	19	SAMPLE	120424001	B2L2M3		ICP-2008 MS All possible metal
198432	198433	1	BLANK	72713	BLANK		Hexavalent chromium
198432	198433	4	LCS	72714	LCS		Hexavalent chromium
198432	198433	5	DUP	72715	B2L2V8(120428001DUP)	120428001	Hexavalent chromium
198432	198433	6	MS	72716	B2L2V8(120428001MS)	120428001	Hexavalent chromium
198432	198433	7	PSTSPK	72717	PSTSPK		Hexavalent chromium
198432	198433	8	IMS	72718	B2L2V8(120428001IMS)	120428001	Hexavalent chromium
198432	198433	10	SAMPLE	120424001	B2L2M3		Hexavalent chromium
198432	198433	11	SAMPLE	120424002	B2L2M6		Hexavalent chromium
198432	198433	12	SAMPLE	120424003	B2L2M9		Hexavalent chromium
198432	198433	13	SAMPLE	120424004	B2L2N2		Hexavalent chromium
198432	198433	14	SAMPLE	120424005	B2L2W4		Hexavalent chromium
198432	198433	15	SAMPLE	120424006	B2L2W7		Hexavalent chromium
198432	198433	16	SAMPLE	120424007	B2L2T2		Hexavalent chromium
198432	198433	17	SAMPLE	120424008	B2L2T6		Hexavalent chromium

Quality Control Report

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Group # WSCF120424

QC Batch 198171 **Test** ICP-6010 - All possible metals
Associated Samples 120424001, 120424002, 120424003, 120424004, 120424005, 120424006, 120424007, 120424008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #72449**							
Lithium	7439-93-2		<4.0	ug/L					U	04/04/12
Boron	7440-42-8		<6.0	ug/L					U	04/04/12
LCS			**QC Sample #72451**							
Lithium	7439-93-2		71.8	mg/kg	68.4	20 - 180				04/04/12
Boron	7440-42-8		96.8	mg/kg	103.6	40 - 160				04/04/12
MS			**QC Sample #72452**							
			Original 120424001							
Lithium	7439-93-2	7.38	193	mg/kg	96.4	75 - 125				04/04/12
Boron	7440-42-8	1.51	203	mg/kg	101.4	75 - 125				04/04/12
MSD			**QC Sample #72453**							
			Original 120424001					**Paired**	**72452**	
Lithium	7439-93-2	7.38	196	mg/kg	98	75 - 125	1.50	30		04/04/12
Boron	7440-42-8	1.51	204	mg/kg	102.1	75 - 125	1.00	30		04/04/12

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120424

QC Batch 198390 **Test** ICP-2008 MS All possible metal
Associated Samples 120424001, 120424002, 120424003, 120424004, 120424005, 120424006, 120424007, 120424008

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #72564**						
Manganese	7439-96-5		<0.10	ug/L				U	04/05/12
Nickel	7440-02-0		<0.10	ug/L				U	04/05/12
Silver	7440-22-4		<0.050	ug/L				U	04/05/12
Antimony	7440-36-0		<0.30	ug/L				U	04/05/12
Barium	7440-39-3		<0.20	ug/L				U	04/05/12
Beryllium	7440-41-7		<0.10	ug/L				U	04/05/12
Cadmium	7440-43-9		<0.050	ug/L				U	04/05/12
Chromium	7440-47-3		0.133	ug/L				B	04/05/12
Cobalt	7440-48-4		<0.050	ug/L				U	04/05/12
Copper	7440-50-8		<0.10	ug/L				U	04/05/12
Vanadium	7440-62-2		0.292	ug/L				B	04/05/12
Zinc	7440-66-6		<1.0	ug/L				U	04/05/12
Lead	7439-92-1		<0.050	ug/L				U	04/05/12
Mercury	7439-97-6		<0.050	ug/L				U	04/05/12
Molybdenum	7439-98-7		<0.050	ug/L				U	04/05/12
Strontium	7440-24-6		<0.10	ug/L				U	04/05/12
Tin	7440-31-5		<0.050	ug/L				U	04/05/12
Uranium	7440-61-1		<0.050	ug/L				U	04/05/12
Arsenic	7440-38-2		<0.20	ug/L				U	04/05/12

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Group # WSCF120424

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Selenium	7782-49-2		<0.50	ug/L					U	04/06/12
LCS			**QC Sample #72565**							
Manganese	7439-96-5		289	mg/kg	101.2	75 - 121				04/05/12
Nickel	7440-02-0		60.9	mg/kg	103.1	74 - 122				04/05/12
Silver	7440-22-4		40.2	mg/kg	117	83 - 127				04/05/12
Antimony	7440-36-0		100	mg/kg	82.2	62 - 205				04/05/12
Barium	7440-39-3		180	mg/kg	106.5	78 - 118				04/05/12
Beryllium	7440-41-7		70.8	mg/kg	113.5	77 - 120				04/05/12
Cadmium	7440-43-9		67.4	mg/kg	109	76 - 129				04/05/12
Chromium	7440-47-3		70.3	mg/kg	98.6	68 - 119				04/05/12
Cobalt	7440-48-4		111	mg/kg	107.4	77 - 122				04/05/12
Copper	7440-50-8		80.4	mg/kg	99	67 - 120				04/05/12
Vanadium	7440-62-2		55.9	mg/kg	94.4	67 - 122				04/05/12
Zinc	7440-66-6		141	mg/kg	100.3	73 - 131				04/05/12
Lead	7439-92-1		101	mg/kg	109.5	79 - 124				04/05/12
Mercury	7439-97-6		4.37	mg/kg	116	69 - 124				04/05/12
Molybdenum	7439-98-7		44.5	mg/kg	104.6	80 - 125				04/05/12
Strontium	7440-24-6		72.2	mg/kg	99.7	78 - 119				04/05/12
Tin	7440-31-5		123	mg/kg	114.9	84 - 130				04/05/12
Uranium	7440-61-1		400	mg/kg	106	86 - 113				04/05/12
Arsenic	7440-38-2		102	mg/kg	110.4	79 - 125				04/05/12
Selenium	7782-49-2		84.0	mg/kg	93.9	82 - 133				04/06/12
MS			**QC Sample #72566**							
			Original 120424001							

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Group # WSCF120424

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Manganese	7439-96-5	311	75.0	mg/kg	75.9	70 - 130				04/05/12
Nickel	7440-02-0	9.38	93.1	mg/kg	94.2	70 - 130				04/05/12
Silver	7440-22-4	<0.051	99.0	mg/kg	100.2	70 - 130				04/05/12
Antimony	7440-36-0	<0.30	84.7	mg/kg	85.7	70 - 130				04/05/12
Barium	7440-39-3	68.6	103	mg/kg	104.2	70 - 130				04/05/12
Beryllium	7440-41-7	0.318	103	mg/kg	104.8	70 - 130				04/05/12
Cadmium	7440-43-9	0.0827	99.8	mg/kg	101	70 - 130				04/05/12
Chromium	7440-47-3	7.07	93.0	mg/kg	94.2	70 - 130				04/05/12
Cobalt	7440-48-4	8.53	94.1	mg/kg	95.3	70 - 130				04/05/12
Copper	7440-50-8	15.7	89.3	mg/kg	90.4	70 - 130				04/05/12
Vanadium	7440-62-2	34.2	90.1	mg/kg	91.2	70 - 130				04/05/12
Zinc	7440-66-6	39.1	92.0	mg/kg	93.1	70 - 130				04/05/12
Lead	7439-92-1	5.06	98.6	mg/kg	99.8	70 - 130				04/05/12
Mercury	7439-97-6	<0.051	2.23	mg/kg	113	70 - 130				04/05/12
Molybdenum	7439-98-7	0.391	107	mg/kg	108.8	70 - 130				04/05/12
Strontium	7440-24-6	29.6	103	mg/kg	104.2	70 - 130				04/05/12
Tin	7440-31-5	0.441	104	mg/kg	105	70 - 130				04/05/12
Uranium	7440-61-1	0.493	105	mg/kg	105.8	70 - 130				04/05/12
Arsenic	7440-38-2	2.15	97.3	mg/kg	98.6	70 - 130				04/05/12
Selenium	7782-49-2	<0.25	43.3	mg/kg	43.9	70 - 130			N	04/06/12
MSD			**QC Sample #72567**							
			Original 120424001					**Paired**	**72566**	
Manganese	7439-96-5	311	78.5	mg/kg	78.3	70 - 130	1.10	30		04/05/12
Nickel	7440-02-0	9.38	95.2	mg/kg	95	70 - 130	1.90	30		04/05/12
Silver	7440-22-4	<0.051	101	mg/kg	101	70 - 130	2.00	30		04/05/12

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Group # WSCF120424

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
Antimony	7440-36-0	<0.30	87.1	mg/kg	86.9	70 - 130	2.80	30			04/05/12
Barium	7440-39-3	68.6	107	mg/kg	107.1	70 - 130	2.90	30			04/05/12
Beryllium	7440-41-7	0.318	104	mg/kg	103.9	70 - 130	1.00	30			04/05/12
Cadmium	7440-43-9	0.0827	101	mg/kg	101	70 - 130	1.20	30			04/05/12
Chromium	7440-47-3	7.07	96.6	mg/kg	96.3	70 - 130	3.40	30			04/05/12
Cobalt	7440-48-4	8.53	95.5	mg/kg	95.2	70 - 130	1.90	30			04/05/12
Copper	7440-50-8	15.7	93.0	mg/kg	92.7	70 - 130	3.80	30			04/05/12
Vanadium	7440-62-2	34.2	93.0	mg/kg	92.7	70 - 130	2.40	30			04/05/12
Zinc	7440-66-6	39.1	95.2	mg/kg	94.9	70 - 130	3.10	30			04/05/12
Lead	7439-92-1	5.06	102	mg/kg	101.7	70 - 130	3.80	30			04/05/12
Mercury	7439-97-6	<0.051	2.24	mg/kg	111.5	70 - 130	0.40	30			04/05/12
Molybdenum	7439-98-7	0.391	109	mg/kg	108.2	70 - 130	0.90	30			04/05/12
Strontium	7440-24-6	29.6	105	mg/kg	104.9	70 - 130	1.50	30			04/05/12
Tin	7440-31-5	0.441	104	mg/kg	103.8	70 - 130	1.00	30			04/05/12
Uranium	7440-61-1	0.493	107	mg/kg	106.7	70 - 130	2.80	30			04/05/12
Arsenic	7440-38-2	2.15	98.4	mg/kg	98.1	70 - 130	0.70	30			04/05/12
Selenium	7782-49-2	<0.25	88.2	mg/kg	88	70 - 130	68.30	30	*	X	04/06/12

Batch QC List

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Group # WSCF120428

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198171	198394	5	BLANK	72449	BLANK		ICP-6010 - All possible metals
198171	198394	7	LCS	72451	LCS		ICP-6010 - All possible metals
198171	198394	9	MS	72452	B2L2M3(120424001MS)	120424001	ICP-6010 - All possible metals
198171	198394	10	MSD	72453	B2L2M3(120424001MSD)	120424001	ICP-6010 - All possible metals
198171	198394	18	SAMPLE	120428001	B2L2V8		ICP-6010 - All possible metals
198171	198394	19	SAMPLE	120428002	B2L2Y5		ICP-6010 - All possible metals
198171	198394	22	SAMPLE	120428003	B2L2N8		ICP-6010 - All possible metals
198171	198394	23	SAMPLE	120428004	B2L2W1		ICP-6010 - All possible metals
198171	198394	24	SAMPLE	120428005	B2L2P1		ICP-6010 - All possible metals
198171	198394	25	SAMPLE	120428006	B2L2Y8		ICP-6010 - All possible metals
198171	198394	26	SAMPLE	120428007	B2L2P4		ICP-6010 - All possible metals
198171	198394	27	SAMPLE	120428008	B2L2Y2		ICP-6010 - All possible metals
198171	198394	28	SAMPLE	120428009	B2L2N5		ICP-6010 - All possible metals
198171	198394	29	SAMPLE	120428010	B2L2X3		ICP-6010 - All possible metals
198171	198394	30	SAMPLE	120428011	B2L2T4		ICP-6010 - All possible metals
198171	198394	31	SAMPLE	120428012	B2L2V2		ICP-6010 - All possible metals
198173	198395	5	BLANK	72454	BLANK		ICP-6010 - All possible metals
198173	198395	7	LCS	72456	LCS		ICP-6010 - All possible metals
198173	198395	8	SAMPLE	120428013	B2L2T9		ICP-6010 - All possible metals
198173	198395	9	MS	72457	B2L2T9(120428013MS)	120428013	ICP-6010 - All possible metals
198173	198395	10	MSD	72458	B2L2T9(120428013MSD)	120428013	ICP-6010 - All possible metals
198173	198395	11	SAMPLE	120428014	B2L2X6		ICP-6010 - All possible metals
198173	198395	12	SAMPLE	120428015	B2L2V5		ICP-6010 - All possible metals

Batch QC List

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Group # WSCF120428

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198173	198395	13	SAMPLE	120428016	B2L2X0		ICP-6010 - All possible metals
198173	198395	14	SAMPLE	120428017	B2L2P7		ICP-6010 - All possible metals
198173	198395	15	SAMPLE	120428018	B2L2X9		ICP-6010 - All possible metals
198390	198430	4	BLANK	72564	BLANK		ICP-2008 MS All possible metal
198390	198430	5	LCS	72565	LCS		ICP-2008 MS All possible metal
198390	198430	7	MS	72566	B2L2M3(120424001MS)	120424001	ICP-2008 MS All possible metal
198390	198430	8	MSD	72567	B2L2M3(120424001MSD)	120424001	ICP-2008 MS All possible metal
198390	198430	16	SAMPLE	120428001	B2L2V8		ICP-2008 MS All possible metal
198390	198430	17	SAMPLE	120428002	B2L2Y5		ICP-2008 MS All possible metal
198390	198430	20	SAMPLE	120428003	B2L2N8		ICP-2008 MS All possible metal
198390	198599	1	LCS	72565	LCS		ICP-2008 MS All possible metal
198390	198599	2	BLANK	72564	BLANK		ICP-2008 MS All possible metal
198390	198599	17	MSD	72567	B2L2M3(120424001MSD)	120424001	ICP-2008 MS All possible metal
198390	198599	18	MS	72566	B2L2M3(120424001MS)	120424001	ICP-2008 MS All possible metal
198390	198599	20	SAMPLE	120428002	B2L2Y5		ICP-2008 MS All possible metal
198390	198599	21	SAMPLE	120428001	B2L2V8		ICP-2008 MS All possible metal
198390	198599	22	SAMPLE	120428003	B2L2N8		ICP-2008 MS All possible metal
198391	198635	4	BLANK	72568	BLANK		ICP-2008 MS All possible metal
198391	198635	5	LCS	72569	LCS		ICP-2008 MS All possible metal
198391	198635	6	SAMPLE	120428004	B2L2W1		ICP-2008 MS All possible metal
198391	198635	7	MS	72570	B2L2W1(120428004MS)	120428004	ICP-2008 MS All possible metal
198391	198635	8	MSD	72571	B2L2W1(120428004MSD	120428004	ICP-2008 MS All possible metal
198391	198635	9	SAMPLE	120428005	B2L2P1		ICP-2008 MS All possible metal

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Group # WSCF120428

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198391	198635	10	SAMPLE	120428006	B2L2Y8		ICP-2008 MS All possible metal
198391	198635	11	SAMPLE	120428007	B2L2P4		ICP-2008 MS All possible metal
198391	198635	12	SAMPLE	120428008	B2L2Y2		ICP-2008 MS All possible metal
198391	198635	13	SAMPLE	120428009	B2L2N5		ICP-2008 MS All possible metal
198391	198635	14	SAMPLE	120428010	B2L2X3		ICP-2008 MS All possible metal
198391	198635	15	SAMPLE	120428011	B2L2T4		ICP-2008 MS All possible metal
198391	198635	16	SAMPLE	120428012	B2L2V2		ICP-2008 MS All possible metal
198391	198635	17	SAMPLE	120428013	B2L2T9		ICP-2008 MS All possible metal
198391	198635	20	SAMPLE	120428014	B2L2X6		ICP-2008 MS All possible metal
198391	198635	21	SAMPLE	120428015	B2L2V5		ICP-2008 MS All possible metal
198391	198635	22	SAMPLE	120428016	B2L2X0		ICP-2008 MS All possible metal
198391	198635	23	SAMPLE	120428017	B2L2P7		ICP-2008 MS All possible metal
198391	198635	24	SAMPLE	120428018	B2L2X9		ICP-2008 MS All possible metal
198391	198667	1	LCS	72569	LCS		ICP-2008 MS All possible metal
198391	198667	2	BLANK	72568	BLANK		ICP-2008 MS All possible metal
198391	198667	9	SAMPLE	120428008	B2L2Y2		ICP-2008 MS All possible metal
198391	198667	10	SAMPLE	120428009	B2L2N5		ICP-2008 MS All possible metal
198391	198667	11	SAMPLE	120428007	B2L2P4		ICP-2008 MS All possible metal
198391	198667	12	MSD	72571	B2L2W1(120428004MSD	120428004	ICP-2008 MS All possible metal
198391	198667	13	SAMPLE	120428005	B2L2P1		ICP-2008 MS All possible metal
198391	198667	14	SAMPLE	120428006	B2L2Y8		ICP-2008 MS All possible metal
198391	198667	15	MS	72570	B2L2W1(120428004MS)	120428004	ICP-2008 MS All possible metal
198391	198667	16	SAMPLE	120428013	B2L2T9		ICP-2008 MS All possible metal

Batch QC List

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Group # WSCF120428

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198391	198667	17	SAMPLE	120428004	B2L2W1		ICP-2008 MS All possible metal
198391	198667	18	SAMPLE	120428018	B2L2X9		ICP-2008 MS All possible metal
198391	198667	19	SAMPLE	120428012	B2L2V2		ICP-2008 MS All possible metal
198391	198667	20	SAMPLE	120428016	B2L2X0		ICP-2008 MS All possible metal
198391	198667	21	SAMPLE	120428017	B2L2P7		ICP-2008 MS All possible metal
198391	198667	22	SAMPLE	120428011	B2L2T4		ICP-2008 MS All possible metal
198391	198667	23	SAMPLE	120428014	B2L2X6		ICP-2008 MS All possible metal
198391	198667	24	SAMPLE	120428015	B2L2V5		ICP-2008 MS All possible metal
198391	198667	25	SAMPLE	120428010	B2L2X3		ICP-2008 MS All possible metal
198418	198419	1	BLANK	72641	BLANK		Anions by Ion Chromatography (Solid)
198418	198419	3	LCS	72643	LCS		Anions by Ion Chromatography (Solid)
198418	198419	4	MS	72644	B2L2Y5(120428002MS)	120428002	Anions by Ion Chromatography (Solid)
198418	198419	5	MSD	72645	B2L2Y5(120428002MSD)	120428002	Anions by Ion Chromatography (Solid)
198418	198419	6	DUP	72646	B2L2Y5(120428002DUP)	120428002	Anions by Ion Chromatography (Solid)
198418	198419	8	SAMPLE	120428001	B2L2V8		Anions by Ion Chromatography (Solid)
198418	198419	9	SAMPLE	120428002	B2L2Y5		Anions by Ion Chromatography (Solid)
198418	198419	10	SAMPLE	120428003	B2L2N8		Anions by Ion Chromatography (Solid)
198418	198419	11	SAMPLE	120428004	B2L2W1		Anions by Ion Chromatography (Solid)
198418	198419	12	SAMPLE	120428005	B2L2P1		Anions by Ion Chromatography (Solid)
198418	198419	13	SAMPLE	120428006	B2L2Y8		Anions by Ion Chromatography (Solid)
198418	198419	14	SAMPLE	120428007	B2L2P4		Anions by Ion Chromatography (Solid)
198418	198419	15	SAMPLE	120428008	B2L2Y2		Anions by Ion Chromatography (Solid)
198418	198419	16	SAMPLE	120428009	B2L2N5		Anions by Ion Chromatography (Solid)

Quality Control Report

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Group # WSCF120428

QC Batch 198171 **Test** ICP-6010 - All possible metals
Associated Samples 120428001, 120428002, 120428003, 120428004, 120428005, 120428006, 120428007, 120428008, 120428009, 120428010, 120428011, 120428012

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #72449**							
Lithium	7439-93-2		<4.0	ug/L					U	04/04/12
Boron	7440-42-8		<6.0	ug/L					U	04/04/12
LCS			**QC Sample #72451**							
Lithium	7439-93-2		71.8	mg/kg	68.4	20 - 180				04/04/12
Boron	7440-42-8		96.8	mg/kg	103.6	40 - 160				04/04/12
MS			**QC Sample #72452**							
			Original 120424001							
Lithium	7439-93-2		193	mg/kg	96.4	75 - 125				04/04/12
Boron	7440-42-8		203	mg/kg	101.4	75 - 125				04/04/12
MSD			**QC Sample #72453**							
			Original 120424001					**Paired**	**72452**	
Lithium	7439-93-2		196	mg/kg	98	75 - 125	1.50	30		04/04/12
Boron	7440-42-8		204	mg/kg	102.1	75 - 125	1.00	30		04/04/12

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120428

QC Batch 198173 **Test** ICP-6010 - All possible metals
Associated Samples 120428013, 120428014, 120428015, 120428016, 120428017, 120428018

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #72454**							
Lithium	7439-93-2		<4.0	ug/L					U	04/04/12
Boron	7440-42-8		<6.0	ug/L					U	04/04/12
LCS			**QC Sample #72456**							
Lithium	7439-93-2		66.3	mg/kg	63.1	20 - 180				04/04/12
Boron	7440-42-8		93.6	mg/kg	100.2	40 - 160				04/04/12
MS			**QC Sample #72457**							
			Original 120428013							
Lithium	7439-93-2	2.90	200	mg/kg	100	75 - 125				04/04/12
Boron	7440-42-8	<0.63	207	mg/kg	103.4	75 - 125				04/04/12
MSD			**QC Sample #72458**							
			Original 120428013					**Paired**	**72457**	
Lithium	7439-93-2	2.90	201	mg/kg	100.7	75 - 125	0.50	30		04/04/12
Boron	7440-42-8	<0.63	209	mg/kg	104.3	75 - 125	1.00	30		04/04/12

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120428

QC Batch 198390
Associated Samples 120428001, 120428002, 120428003

Test ICP-2008 MS All possible metal

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #72564**						
Manganese	7439-96-5		<0.10	ug/L				U	04/05/12
Nickel	7440-02-0		<0.10	ug/L				U	04/05/12
Silver	7440-22-4		<0.050	ug/L				U	04/05/12
Antimony	7440-36-0		<0.30	ug/L				U	04/05/12
Barium	7440-39-3		<0.20	ug/L				U	04/05/12
Beryllium	7440-41-7		<0.10	ug/L				U	04/05/12
Cadmium	7440-43-9		<0.050	ug/L				U	04/05/12
Chromium	7440-47-3		0.133	ug/L				B	04/05/12
Cobalt	7440-48-4		<0.050	ug/L				U	04/05/12
Copper	7440-50-8		<0.10	ug/L				U	04/05/12
Vanadium	7440-62-2		0.292	ug/L				B	04/05/12
Zinc	7440-66-6		<1.0	ug/L				U	04/05/12
Lead	7439-92-1		<0.050	ug/L				U	04/05/12
Mercury	7439-97-6		<0.050	ug/L				U	04/05/12
Molybdenum	7439-98-7		<0.050	ug/L				U	04/05/12
Strontium	7440-24-6		<0.10	ug/L				U	04/05/12
Tin	7440-31-5		<0.050	ug/L				U	04/05/12
Uranium	7440-61-1		<0.050	ug/L				U	04/05/12
Arsenic	7440-38-2		<0.20	ug/L				U	04/05/12

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Selenium	7782-49-2		<0.50	ug/L					U	04/06/12
LCS			**QC Sample #72565**							
Manganese	7439-96-5		289	mg/kg	101.2	75 - 121				04/05/12
Nickel	7440-02-0		60.9	mg/kg	103.1	74 - 122				04/05/12
Silver	7440-22-4		40.2	mg/kg	117	83 - 127				04/05/12
Antimony	7440-36-0		100	mg/kg	82.2	62 - 205				04/05/12
Barium	7440-39-3		180	mg/kg	106.5	78 - 118				04/05/12
Beryllium	7440-41-7		70.8	mg/kg	113.5	77 - 120				04/05/12
Cadmium	7440-43-9		67.4	mg/kg	109	76 - 129				04/05/12
Chromium	7440-47-3		70.3	mg/kg	98.6	68 - 119				04/05/12
Cobalt	7440-48-4		111	mg/kg	107.4	77 - 122				04/05/12
Copper	7440-50-8		80.4	mg/kg	99	67 - 120				04/05/12
Vanadium	7440-62-2		55.9	mg/kg	94.4	67 - 122				04/05/12
Zinc	7440-66-6		141	mg/kg	100.3	73 - 131				04/05/12
Lead	7439-92-1		101	mg/kg	109.5	79 - 124				04/05/12
Mercury	7439-97-6		4.37	mg/kg	116	69 - 124				04/05/12
Molybdenum	7439-98-7		44.5	mg/kg	104.6	80 - 125				04/05/12
Strontium	7440-24-6		72.2	mg/kg	99.7	78 - 119				04/05/12
Tin	7440-31-5		123	mg/kg	114.9	84 - 130				04/05/12
Uranium	7440-61-1		400	mg/kg	106	86 - 113				04/05/12
Arsenic	7440-38-2		102	mg/kg	110.4	79 - 125				04/05/12
Selenium	7782-49-2		84.0	mg/kg	93.9	82 - 133				04/06/12
MS			**QC Sample #72566**							
			Original 120424001							

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Manganese	7439-96-5		75.0	mg/kg	75.9	70 - 130				04/05/12
Nickel	7440-02-0		93.1	mg/kg	94.2	70 - 130				04/05/12
Silver	7440-22-4		99.0	mg/kg	100.2	70 - 130				04/05/12
Antimony	7440-36-0		84.7	mg/kg	85.7	70 - 130				04/05/12
Barium	7440-39-3		103	mg/kg	104.2	70 - 130				04/05/12
Beryllium	7440-41-7		103	mg/kg	104.8	70 - 130				04/05/12
Cadmium	7440-43-9		99.8	mg/kg	101	70 - 130				04/05/12
Chromium	7440-47-3		93.0	mg/kg	94.2	70 - 130				04/05/12
Cobalt	7440-48-4		94.1	mg/kg	95.3	70 - 130				04/05/12
Copper	7440-50-8		89.3	mg/kg	90.4	70 - 130				04/05/12
Vanadium	7440-62-2		90.1	mg/kg	91.2	70 - 130				04/05/12
Zinc	7440-66-6		92.0	mg/kg	93.1	70 - 130				04/05/12
Lead	7439-92-1		98.6	mg/kg	99.8	70 - 130				04/05/12
Mercury	7439-97-6		2.23	mg/kg	113	70 - 130				04/05/12
Molybdenum	7439-98-7		107	mg/kg	108.8	70 - 130				04/05/12
Strontium	7440-24-6		103	mg/kg	104.2	70 - 130				04/05/12
Tin	7440-31-5		104	mg/kg	105	70 - 130				04/05/12
Uranium	7440-61-1		105	mg/kg	105.8	70 - 130				04/05/12
Arsenic	7440-38-2		97.3	mg/kg	98.6	70 - 130				04/05/12
Selenium	7782-49-2		43.3	mg/kg	43.9	70 - 130			N	04/06/12
MSD			**QC Sample #72567**							
			Original 120424001					**Paired**	**72566**	
Manganese	7439-96-5		78.5	mg/kg	78.3	70 - 130	1.10	30		04/05/12
Nickel	7440-02-0		95.2	mg/kg	95	70 - 130	1.90	30		04/05/12
Silver	7440-22-4		101	mg/kg	101	70 - 130	2.00	30		04/05/12

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Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
Antimony	7440-36-0		87.1	mg/kg	86.9	70 - 130	2.80	30			04/05/12
Barium	7440-39-3		107	mg/kg	107.1	70 - 130	2.90	30			04/05/12
Beryllium	7440-41-7		104	mg/kg	103.9	70 - 130	1.00	30			04/05/12
Cadmium	7440-43-9		101	mg/kg	101	70 - 130	1.20	30			04/05/12
Chromium	7440-47-3		96.6	mg/kg	96.3	70 - 130	3.40	30			04/05/12
Cobalt	7440-48-4		95.5	mg/kg	95.2	70 - 130	1.90	30			04/05/12
Copper	7440-50-8		93.0	mg/kg	92.7	70 - 130	3.80	30			04/05/12
Vanadium	7440-62-2		93.0	mg/kg	92.7	70 - 130	2.40	30			04/05/12
Zinc	7440-66-6		95.2	mg/kg	94.9	70 - 130	3.10	30			04/05/12
Lead	7439-92-1		102	mg/kg	101.7	70 - 130	3.80	30			04/05/12
Mercury	7439-97-6		2.24	mg/kg	111.5	70 - 130	0.40	30			04/05/12
Molybdenum	7439-98-7		109	mg/kg	108.2	70 - 130	0.90	30			04/05/12
Strontium	7440-24-6		105	mg/kg	104.9	70 - 130	1.50	30			04/05/12
Tin	7440-31-5		104	mg/kg	103.8	70 - 130	1.00	30			04/05/12
Uranium	7440-61-1		107	mg/kg	106.7	70 - 130	2.80	30			04/05/12
Arsenic	7440-38-2		98.4	mg/kg	98.1	70 - 130	0.70	30			04/05/12
Selenium	7782-49-2		88.2	mg/kg	88	70 - 130	68.30	30	*	X	04/06/12

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120428

QC Batch 198391 **Test** ICP-2008 MS All possible metal
Associated Samples 120428004, 120428005, 120428006, 120428007, 120428008, 120428009, 120428010, 120428011, 120428012, 120428013, 120428014, 120428015, 120428016, 120428017, 120428018

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #72568**						
Manganese	7439-96-5		<0.10	ug/L				U	04/10/12
Nickel	7440-02-0		<0.10	ug/L				U	04/10/12
Silver	7440-22-4		<0.050	ug/L				U	04/10/12
Antimony	7440-36-0		<0.30	ug/L				U	04/10/12
Barium	7440-39-3		<0.20	ug/L				U	04/10/12
Beryllium	7440-41-7		<0.10	ug/L				U	04/10/12
Cadmium	7440-43-9		<0.050	ug/L				U	04/10/12
Chromium	7440-47-3		0.562	ug/L				B	04/10/12
Cobalt	7440-48-4		<0.050	ug/L				U	04/10/12
Copper	7440-50-8		<0.10	ug/L				U	04/10/12
Vanadium	7440-62-2		1.52	ug/L				B	04/10/12
Zinc	7440-66-6		<1.0	ug/L				U	04/10/12
Lead	7439-92-1		<0.050	ug/L				U	04/10/12
Mercury	7439-97-6		<0.050	ug/L				U	04/10/12
Molybdenum	7439-98-7		<0.050	ug/L				U	04/10/12
Strontium	7440-24-6		<0.10	ug/L				U	04/10/12
Tin	7440-31-5		<0.050	ug/L				U	04/10/12
Uranium	7440-61-1		<0.050	ug/L				U	04/10/12

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Group # WSCF120428

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Arsenic	7440-38-2		<0.20	ug/L					U	04/10/12
Selenium	7782-49-2		<0.50	ug/L					U	04/11/12
LCS			**QC Sample #72569**							
Manganese	7439-96-5		284	mg/kg	99.3	75 - 121				04/10/12
Nickel	7440-02-0		59.3	mg/kg	100.4	74 - 122				04/10/12
Silver	7440-22-4		37.9	mg/kg	110.2	83 - 127				04/10/12
Antimony	7440-36-0		149	mg/kg	122	62 - 205				04/10/12
Barium	7440-39-3		175	mg/kg	103.3	78 - 118				04/10/12
Beryllium	7440-41-7		68.1	mg/kg	109.1	77 - 120				04/10/12
Cadmium	7440-43-9		64.5	mg/kg	104.3	76 - 129				04/10/12
Chromium	7440-47-3		72.1	mg/kg	101.1	68 - 119				04/10/12
Cobalt	7440-48-4		107	mg/kg	103.7	77 - 122				04/10/12
Copper	7440-50-8		78.7	mg/kg	96.9	67 - 120				04/10/12
Vanadium	7440-62-2		62.1	mg/kg	104.9	67 - 122				04/10/12
Zinc	7440-66-6		139	mg/kg	98.9	73 - 131				04/10/12
Lead	7439-92-1		97.1	mg/kg	105.1	79 - 124				04/10/12
Mercury	7439-97-6		4.19	mg/kg	111	69 - 124				04/10/12
Molybdenum	7439-98-7		50.3	mg/kg	118.1	80 - 125				04/10/12
Strontium	7440-24-6		71.6	mg/kg	98.9	78 - 119				04/10/12
Tin	7440-31-5		121	mg/kg	112.8	84 - 130				04/10/12
Uranium	7440-61-1		447	mg/kg	110.5	86 - 113				04/10/12
Arsenic	7440-38-2		98.9	mg/kg	106.8	79 - 125				04/10/12
Selenium	7782-49-2		80.2	mg/kg	89.6	82 - 133				04/11/12

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MS			**QC Sample #72570**							
			Original	**120428004**						
Manganese	7439-96-5	232	133	mg/kg	143.8	70 - 130			N	04/10/12
Nickel	7440-02-0	6.43	94.0	mg/kg	102	70 - 130				04/10/12
Silver	7440-22-4	0.0613	94.0	mg/kg	101.9	70 - 130				04/10/12
Antimony	7440-36-0	<0.31	88.6	mg/kg	96.1	70 - 130				04/10/12
Barium	7440-39-3	50.3	97.9	mg/kg	106.2	70 - 130				04/10/12
Beryllium	7440-41-7	0.258	98.9	mg/kg	107.3	70 - 130				04/10/12
Cadmium	7440-43-9	0.0649	93.9	mg/kg	101.9	70 - 130				04/10/12
Chromium	7440-47-3	4.78	92.8	mg/kg	100.7	70 - 130				04/10/12
Cobalt	7440-48-4	7.70	92.2	mg/kg	100	70 - 130				04/10/12
Copper	7440-50-8	12.9	92.0	mg/kg	99.9	70 - 130				04/10/12
Vanadium	7440-62-2	41.6	88.8	mg/kg	96.3	70 - 130				04/10/12
Zinc	7440-66-6	34.3	88.7	mg/kg	96.3	70 - 130				04/10/12
Lead	7439-92-1	3.07	95.1	mg/kg	103.2	70 - 130				04/10/12
Mercury	7439-97-6	<0.051	2.12	mg/kg	115	70 - 130				04/10/12
Molybdenum	7439-98-7	0.414	102	mg/kg	111.2	70 - 130				04/10/12
Strontium	7440-24-6	22.6	96.0	mg/kg	104.2	70 - 130				04/10/12
Tin	7440-31-5	0.456	98.0	mg/kg	106.3	70 - 130				04/10/12
Uranium	7440-61-1	0.441	99.4	mg/kg	107.9	70 - 130				04/10/12
Arsenic	7440-38-2	1.80	93.8	mg/kg	101.8	70 - 130				04/10/12
Selenium	7782-49-2	<0.26	87.4	mg/kg	94.8	70 - 130				04/11/12
MSD			**QC Sample #72571**							
			Original	**120428004**				**Paired**	**72570**	
Manganese	7439-96-5	232	63.5	mg/kg	64.3	70 - 130	22.20	30	N	04/10/12

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Nickel	7440-02-0	6.43	96.5	mg/kg	97.7	70 - 130	2.10	30		04/10/12
Silver	7440-22-4	0.0613	98.7	mg/kg	99.9	70 - 130	4.90	30		04/10/12
Antimony	7440-36-0	<0.31	93.6	mg/kg	94.9	70 - 130	5.50	30		04/10/12
Barium	7440-39-3	50.3	94.7	mg/kg	96	70 - 130	2.10	30		04/10/12
Beryllium	7440-41-7	0.258	103	mg/kg	104.8	70 - 130	4.70	30		04/10/12
Cadmium	7440-43-9	0.0649	98.8	mg/kg	100	70 - 130	5.00	30		04/10/12
Chromium	7440-47-3	4.78	96.1	mg/kg	97.3	70 - 130	2.80	30		04/10/12
Cobalt	7440-48-4	7.70	95.5	mg/kg	96.7	70 - 130	3.70	30		04/10/12
Copper	7440-50-8	12.9	96.6	mg/kg	97.8	70 - 130	3.80	30		04/10/12
Vanadium	7440-62-2	41.6	88.5	mg/kg	89.7	70 - 130	0.00	30		04/10/12
Zinc	7440-66-6	34.3	88.6	mg/kg	89.7	70 - 130	0.00	30		04/10/12
Lead	7439-92-1	3.07	100	mg/kg	101.4	70 - 130	5.00	30		04/10/12
Mercury	7439-97-6	<0.051	2.27	mg/kg	115	70 - 130	6.80	30		04/10/12
Molybdenum	7439-98-7	0.414	109	mg/kg	110.4	70 - 130	5.70	30		04/10/12
Strontium	7440-24-6	22.6	101	mg/kg	102.3	70 - 130	4.20	30		04/10/12
Tin	7440-31-5	0.456	102	mg/kg	103.8	70 - 130	4.60	30		04/10/12
Uranium	7440-61-1	0.441	105	mg/kg	106.1	70 - 130	5.10	30		04/10/12
Arsenic	7440-38-2	1.80	97.2	mg/kg	98.4	70 - 130	3.40	30		04/10/12
Selenium	7782-49-2	<0.26	88.8	mg/kg	90	70 - 130	1.60	30		04/11/12

Date: 15 June 2012
To: CH2M Hill (technical representative)
From: Analytical Quality Associates, Inc.
Project: 100-K
Subject: General Chemistry - Sample Data Groups (SDGs) WSCF120424 and WSCF120428

INTRODUCTION

This memorandum presents the results of data validation for SDGs WSCF120424 and WSCF120428 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
B2L2M3	03/28/12	Soil	C	See note 1
B2L2M6	03/28/12	Soil	C	See note 1
B2L2M9	03/28/12	Soil	C	See note 1
B2L2N2	03/28/12	Soil	C	See note 1
B2L2W4	03/28/12	Soil	C	See note 1
B2L2W7	03/28/12	Soil	C	See note 1
B2L2T2	03/28/12	Soil	C	See note 1
B2L2T6	03/28/12	Soil	C	See note 1
B2L2V8	04/01/12	Soil	C	See note 1
B2L2Y5	04/01/12	Soil	C	See note 1
B2L2N8	04/01/12	Soil	C	See note 1
B2L2W1	04/01/12	Soil	C	See note 1
B2L2P1	04/01/12	Soil	C	See note 1
B2L2Y8	04/01/12	Soil	C	See note 1
B2L2P4	04/01/12	Soil	C	See note 1
B2L2Y2	04/01/12	Soil	C	See note 1
B2L2N5	04/01/12	Soil	C	See note 1
B2L2X3	04/01/12	Soil	C	See note 1
B2L2T4	04/01/12	Soil	C	See note 1
B2L2V2	04/01/12	Soil	C	See note 1
B2L2T9	04/01/12	Soil	C	See note 1
B2L2X6	04/01/12	Soil	C	See note 1
B2L2V5	04/01/12	Soil	C	See note 1
B2L2X0	04/01/12	Soil	C	See note 1
B2L2P7	04/01/12	Soil	C	See note 1
B2L2X9	04/01/12	Soil	C	See note 1

1 – 300.0 (anions), 7196 (Hexavalent chromium), 9045 (pH)

Data validation was conducted in accordance with the CHPRC validation statement of work and 100 Area Remedial Action Sampling and Analysis Plan, DOE/RL-96-22, Rev. 5, (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 except nitrate and nitrite – analysis within 28 days of sample collection
- Nitrate and nitrite – extraction within 28 days of sample collection and analysis within 48 hours of extraction
- Hexavalent chromium – extraction within 30 days of sample collection and analysis within 24 hours of extraction.
- pH – analysis as soon as possible (24 hours is a reasonable holding time)

Sample preservation requires chilling to 4 degrees Celsius.

The samples were analyzed within the prescribed holding times and properly preserved with the following exceptions

For SDG WSCF120424, all samples were analyzed for pH five days after sample collection. Based on professional judgment, all pH sample results should be qualified as estimates and flagged "J."

For SDG WSCF120428, all samples were analyzed for pH four days after sample collection. Based on professional judgment, all pH sample results should be qualified as estimates and flagged "J."

- **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 and laboratory control sample accuracy limits are 70% to 130%. 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.

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 with the following exceptions. The sulfate MDLs for samples B2L2T2, B2L2X3, B2L2T4, B2L2T9, B2L2X6 and B2L2P7 were slightly greater than the CRDL.

- **Completeness**

SDGs WSCF120424 and WSCF120428 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 all pH sample results as estimates were due to holding time infraction.

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: WSCF120424, WSCF120428	Reviewer: AQA	Project: 100-K	Page 1 of 1
Analyte(s)	**Qualifier**	**Samples Affected**	**Reason**
pH	J	All	Missed holding time

Comments: None

Appendix 3

Annotated Laboratory Reports

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424001
SAF# F11-092
Sample ID B2L2M3

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/02/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.2		mg/kg	1	1.2	3.8	04/02/12
Chloride	16887-00-6	LA-533-410	B	9.35		mg/kg	1	3.1	22	04/02/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.2	04/02/12
Nitrate-N	NO3-N	LA-533-410	B	2.90		mg/kg	1	0.99	5.3	04/02/12
Sulfate	14808-79-8	LA-533-410	B	19.4		mg/kg	1	5.9	56	04/02/12
Cr(VI) Prep										**04/05/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.52	04/05/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		7.38		mg/kg	1	0.43	2.1	04/04/12
Boron	7440-42-8	LA-505-411	B	1.51		mg/kg	1	0.64	22	04/04/12
ICPMS Prep										**04/05/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412		311		mg/kg	1	0.10	1.0	04/05/12
Nickel	7440-02-0	LA-505-412		9.38		mg/kg	1	0.10	1.0	04/05/12
Silver	7440-22-4	LA-505-412	U	<0.051		mg/kg	1	0.051	0.51	04/05/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424002
SAF# F11-092
Sample ID B2L2M6

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/02/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.2		mg/kg	1	1.2	3.8	04/02/12
Chloride	16887-00-6	LA-533-410	B	3.16		mg/kg	1	3.1	22	04/02/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.2	04/02/12
Nitrate-N	NO3-N	LA-533-410	B	2.35		mg/kg	1	0.98	5.2	04/02/12
Sulfate	14808-79-8	LA-533-410	B	10.5		mg/kg	1	5.8	55	04/02/12
Cr(VI) Prep										**04/05/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.51	04/05/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		5.44		mg/kg	1	0.43	2.1	04/04/12
Boron	7440-42-8	LA-505-411	B	0.824		mg/kg	1	0.64	22	04/04/12
ICPMS Prep										**04/05/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412		289		mg/kg	1	0.10	1.0	04/05/12
Nickel	7440-02-0	LA-505-412		7.83		mg/kg	1	0.10	1.0	04/05/12
Silver	7440-22-4	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	04/05/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424003
SAF# F11-092
Sample ID B2L2M9

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/02/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.2		mg/kg	1	1.2	3.8	04/02/12
Chloride	16887-00-6	LA-533-410	B	5.43		mg/kg	1	3.1	22	04/02/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.2	04/02/12
Nitrate-N	NO3-N	LA-533-410	B	1.25		mg/kg	1	0.99	5.3	04/02/12
Sulfate	14808-79-8	LA-533-410	B	14.1		mg/kg	1	5.8	56	04/02/12
Cr(VI) Prep										**04/05/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	04/05/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		6.56		mg/kg	1	0.43	2.1	04/04/12
Boron	7440-42-8	LA-505-411	B	2.21		mg/kg	1	0.64	22	04/04/12
ICPMS Prep										**04/05/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412		312		mg/kg	1	0.12	1.2	04/05/12
Nickel	7440-02-0	LA-505-412		9.35		mg/kg	1	0.12	1.2	04/05/12
Silver	7440-22-4	LA-505-412	B	0.0592		mg/kg	1	0.058	0.58	04/05/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424004
SAF# F11-092
Sample ID B2L2N2

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/02/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.1		mg/kg	1	1.1	3.8	04/02/12
Chloride	16887-00-6	LA-533-410		23.0		mg/kg	1	3.0	21	04/02/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.1	04/02/12
Nitrate-N	NO3-N	LA-533-410	B	1.21		mg/kg	1	0.97	5.2	04/02/12
Sulfate	14808-79-8	LA-533-410		182		mg/kg	1	5.7	55	04/02/12
Cr(VI) Prep										**04/05/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.096		ug/g	1	0.096	0.48	04/05/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		4.84		mg/kg	1	0.42	2.1	04/04/12
Boron	7440-42-8	LA-505-411	B	3.06		mg/kg	1	0.63	21	04/04/12
ICPMS Prep										**04/05/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412		244		mg/kg	1	0.11	1.1	04/05/12
Nickel	7440-02-0	LA-505-412		7.23		mg/kg	1	0.11	1.1	04/05/12
Silver	7440-22-4	LA-505-412	U	<0.054		mg/kg	1	0.054	0.54	04/05/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424005
SAF# F11-092
Sample ID B2L2W4

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/02/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.1		mg/kg	1	1.1	3.8	04/02/12
Chloride	16887-00-6	LA-533-410	B	8.05		mg/kg	1	3.0	21	04/02/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.1	04/02/12
Nitrate-N	NO3-N	LA-533-410	B	3.23		mg/kg	1	0.97	5.2	04/02/12
Sulfate	14808-79-8	LA-533-410	B	10.4		mg/kg	1	5.7	55	04/02/12
Cr(VI) Prep										**04/05/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.51	04/05/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		5.67		mg/kg	1	0.43	2.1	04/04/12
Boron	7440-42-8	LA-505-411	B	0.872		mg/kg	1	0.64	22	04/04/12
ICPMS Prep										**04/05/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412		309		mg/kg	1	0.11	1.1	04/05/12
Nickel	7440-02-0	LA-505-412		9.35		mg/kg	1	0.11	1.1	04/05/12
Silver	7440-22-4	LA-505-412	U	<0.054		mg/kg	1	0.054	0.54	04/05/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424006
SAF# F11-092
Sample ID B2L2W7

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/02/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.2		mg/kg	1	1.2	3.9	04/02/12
Chloride	16887-00-6	LA-533-410	B	8.79		mg/kg	1	3.1	22	04/02/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.2	04/02/12
Nitrate-N	NO3-N	LA-533-410	B	3.68		mg/kg	1	0.99	5.3	04/02/12
Sulfate	14808-79-8	LA-533-410	B	13.7		mg/kg	1	5.9	56	04/02/12
Cr(VI) Prep										**04/05/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.52	04/05/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		5.14		mg/kg	1	0.43	2.1	04/04/12
Boron	7440-42-8	LA-505-411	B	1.01		mg/kg	1	0.64	22	04/04/12
ICPMS Prep										**04/05/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412		276		mg/kg	1	0.10	1.0	04/05/12
Nickel	7440-02-0	LA-505-412		7.92		mg/kg	1	0.10	1.0	04/05/12
Silver	7440-22-4	LA-505-412	U	<0.050		mg/kg	1	0.050	0.50	04/05/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424007
SAF# F11-092
Sample ID B2L2T2

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/02/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.1		mg/kg	1	1.1	3.6	04/02/12
Chloride	16887-00-6	LA-533-410	U	<2.9		mg/kg	1	2.9	20	04/02/12
Nitrite-N	NO2-N	LA-533-410	U	<0.95		mg/kg	1	0.95	4.8	04/02/12
Nitrate-N	NO3-N	LA-533-410	U	<0.92		mg/kg	1	0.92	4.9	04/02/12
Sulfate	14808-79-8	LA-533-410	U	<5.4		mg/kg	1	5.4	52	04/02/12
Cr(VI) Prep										**04/05/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.099		ug/g	1	0.099	0.49	04/05/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411	U	<0.40		mg/kg	1	0.40	2.0	04/04/12
Boron	7440-42-8	LA-505-411	U	<0.60		mg/kg	1	0.60	21	04/04/12
ICPMS Prep										**04/05/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412		7.89		mg/kg	1	0.10	1.0	04/05/12
Nickel	7440-02-0	LA-505-412	U	<0.10		mg/kg	1	0.10	1.0	04/05/12
Silver	7440-22-4	LA-505-412	U	<0.051		mg/kg	1	0.051	0.51	04/05/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Sample # 120424008
SAF# F11-092
Sample ID B2L2T6

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/02/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.2		mg/kg	1	1.2	3.8	04/02/12
Chloride	16887-00-6	LA-533-410	B	8.13		mg/kg	1	3.1	21	04/02/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.2	04/02/12
Nitrate-N	NO3-N	LA-533-410	B	3.09		mg/kg	1	0.98	5.2	04/02/12
Sulfate	14808-79-8	LA-533-410	B	10.5		mg/kg	1	5.8	55	04/02/12
Cr(VI) Prep										**04/05/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.52	04/05/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		5.13		mg/kg	1	0.43	2.1	04/04/12
Boron	7440-42-8	LA-505-411	B	0.798		mg/kg	1	0.64	22	04/04/12
ICPMS Prep										**04/05/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412		345		mg/kg	1	0.11	1.1	04/05/12
Nickel	7440-02-0	LA-505-412		12.1		mg/kg	1	0.11	1.1	04/05/12
Silver	7440-22-4	LA-505-412	U	<0.055		mg/kg	1	0.055	0.55	04/05/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120424

Sample # 120424001
SAF# F11-092
Sample ID B2L2M3

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		93		percent	1			04/04/12
pH on Soil										**04/02/12**
pH on Soil										
pH	PH	LA-212-411	J	7.98		unitless	1	0.010	0.50	04/02/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120424

Sample # 120424002
SAF# F11-092
Sample ID B2L2M6

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		93		percent	1			04/04/12
pH on Soil										**04/02/12**
pH on Soil										
pH	PH	LA-212-411	J	7.92		unitless	1	0.010	0.50	04/02/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120424

Sample # 120424003
SAF# F11-092
Sample ID B2L2M9

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		93		percent	1			04/04/12
pH on Soil										**04/02/12**
pH on Soil										
pH	PH	LA-212-411	J	8.11		unitless	1	0.010	0.50	04/02/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120424

Sample # 120424004
SAF# F11-092
Sample ID B2L2N2

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		95		percent	1			04/04/12
pH on Soil										**04/02/12**
pH on Soil										
pH	PH	LA-212-411	J	7.76		unitless	1	0.010	0.50	04/02/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120424

Sample # 120424005
SAF# F11-092
Sample ID B2L2W4

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		94		percent	1			04/04/12
pH on Soil										**04/02/12**
pH on Soil										
pH	PH	LA-212-411	J	7.96		unitless	1	0.010	0.50	04/02/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120424

Sample # 120424006
SAF# F11-092
Sample ID B2L2W7

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		93		percent	1			04/04/12
pH on Soil										**04/02/12**
pH on Soil										
pH	PH	LA-212-411	J	7.89		unitless	1	0.010	0.50	04/02/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120424

Sample # 120424007
SAF# F11-092
Sample ID B2L2T2

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		100		percent	1			04/04/12
pH on Soil										**04/02/12**
pH on Soil										
pH	PH	LA-212-411	J	8.10		unitless	1	0.010	0.50	04/02/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120424

Sample # 120424008
SAF# F11-092
Sample ID B2L2T6

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		94		percent	1			04/04/12
pH on Soil										**04/02/12**
pH on Soil										
pH	PH	LA-212-411	J	7.82		unitless	1	0.010	0.50	04/02/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428001
SAF# F11-092
Sample ID B2L2V8

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/04/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.2		mg/kg	1	1.2	3.9	04/04/12
Chloride	16887-00-6	LA-533-410	U	<3.1		mg/kg	1	3.1	22	04/04/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.3	04/04/12
Nitrate-N	NO3-N	LA-533-410	B	1.00		mg/kg	1	1.0	5.4	04/04/12
Sulfate	14808-79-8	LA-533-410	B	16.0		mg/kg	1	6.0	57	04/04/12
Cr(VI) Prep										**04/05/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.11		ug/g	1	0.11	0.53	04/05/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		7.11		mg/kg	1	0.44	2.2	04/04/12
Boron	7440-42-8	LA-505-411	B	1.13		mg/kg	1	0.66	22	04/04/12
ICPMS Prep										**04/05/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412		416		mg/kg	1	0.11	1.1	04/05/12
Nickel	7440-02-0	LA-505-412		28.3		mg/kg	1	0.11	1.1	04/05/12
Silver	7440-22-4	LA-505-412	B	0.102		mg/kg	1	0.053	0.53	04/05/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428002
SAF# F11-092
Sample ID B2L2Y5

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/04/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.2		mg/kg	1	1.2	3.9	04/04/12
Chloride	16887-00-6	LA-533-410	B	4.13		mg/kg	1	3.1	22	04/04/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.3	04/04/12
Nitrate-N	NO3-N	LA-533-410	B	1.28		mg/kg	1	1.0	5.3	04/04/12
Sulfate	14808-79-8	LA-533-410	B	8.89		mg/kg	1	5.9	56	04/04/12
Cr(VI) Prep										**04/05/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.094		ug/g	1	0.094	0.47	04/05/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		4.43		mg/kg	1	0.43	2.2	04/04/12
Boron	7440-42-8	LA-505-411	U	<0.65		mg/kg	1	0.65	22	04/04/12
ICPMS Prep										**04/05/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412		254		mg/kg	1	0.10	1.0	04/05/12
Nickel	7440-02-0	LA-505-412		8.02		mg/kg	1	0.10	1.0	04/05/12
Silver	7440-22-4	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	04/05/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428003
SAF# F11-092
Sample ID B2L2N8

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/04/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.2		mg/kg	1	1.2	4.0	04/04/12
Chloride	16887-00-6	LA-533-410	B	11.8		mg/kg	1	3.2	23	04/04/12
Nitrite-N	NO2-N	LA-533-410	U	<1.1		mg/kg	1	1.1	5.4	04/04/12
Nitrate-N	NO3-N	LA-533-410	B	1.47		mg/kg	1	1.0	5.5	04/04/12
Sulfate	14808-79-8	LA-533-410	B	14.4		mg/kg	1	6.1	58	04/04/12
Cr(VI) Prep										**04/05/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.11		ug/g	1	0.11	0.55	04/05/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		8.45		mg/kg	1	0.44	2.2	04/04/12
Boron	7440-42-8	LA-505-411	B	0.896		mg/kg	1	0.66	23	04/04/12
ICPMS Prep										**04/05/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412		269		mg/kg	1	0.12	1.2	04/05/12
Nickel	7440-02-0	LA-505-412		8.24		mg/kg	1	0.12	1.2	04/05/12
Silver	7440-22-4	LA-505-412	U	<0.061		mg/kg	1	0.061	0.61	04/05/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428004
SAF# F11-092
Sample ID B2L2W1

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/04/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.2		mg/kg	1	1.2	3.9	04/04/12
Chloride	16887-00-6	LA-533-410	B	9.45		mg/kg	1	3.1	22	04/04/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.3	04/04/12
Nitrate-N	NO3-N	LA-533-410	B	1.00		mg/kg	1	1.0	5.4	04/04/12
Sulfate	14808-79-8	LA-533-410	B	9.20		mg/kg	1	5.9	57	04/04/12
Cr(VI) Prep										**04/05/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.099		ug/g	1	0.099	0.50	04/05/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		5.94		mg/kg	1	0.43	2.2	04/04/12
Boron	7440-42-8	LA-505-411	U	<0.65		mg/kg	1	0.65	22	04/04/12
ICPMS Prep										**04/10/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412	N	232		mg/kg	1	0.10	1.0	04/10/12
Nickel	7440-02-0	LA-505-412		6.43		mg/kg	1	0.10	1.0	04/10/12
Silver	7440-22-4	LA-505-412	B	0.0613		mg/kg	1	0.051	0.51	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428005
SAF# F11-092
Sample ID B2L2P1

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/04/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.3		mg/kg	1	1.3	4.1	04/04/12
Chloride	16887-00-6	LA-533-410		106		mg/kg	1	3.3	23	04/04/12
Nitrite-N	NO2-N	LA-533-410	U	<1.1		mg/kg	1	1.1	5.6	04/04/12
Nitrate-N	NO3-N	LA-533-410	U	<1.1		mg/kg	1	1.1	5.6	04/04/12
Sulfate	14808-79-8	LA-533-410	B	34.5		mg/kg	1	6.3	60	04/04/12
Cr(VI) Prep										**04/05/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	04/05/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		7.93		mg/kg	1	0.46	2.3	04/04/12
Boron	7440-42-8	LA-505-411	B	0.881		mg/kg	1	0.69	23	04/04/12
ICPMS Prep										**04/10/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412	N	410		mg/kg	1	0.11	1.1	04/10/12
Nickel	7440-02-0	LA-505-412		12.1		mg/kg	1	0.11	1.1	04/10/12
Silver	7440-22-4	LA-505-412	B	0.0752		mg/kg	1	0.054	0.54	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428006
SAF# F11-092
Sample ID B2L2Y8

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/04/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.2		mg/kg	1	1.2	3.8	04/04/12
Chloride	16887-00-6	LA-533-410	B	3.79		mg/kg	1	3.1	22	04/04/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.2	04/04/12
Nitrate-N	NO3-N	LA-533-410	B	1.18		mg/kg	1	0.99	5.3	04/04/12
Sulfate	14808-79-8	LA-533-410	B	7.85		mg/kg	1	5.9	56	04/04/12
Cr(VI) Prep										**04/05/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.095		ug/g	1	0.095	0.47	04/05/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		6.88		mg/kg	1	0.43	2.2	04/04/12
Boron	7440-42-8	LA-505-411	U	<0.65		mg/kg	1	0.65	22	04/04/12
ICPMS Prep										**04/10/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412	N	301		mg/kg	1	0.10	1.0	04/10/12
Nickel	7440-02-0	LA-505-412		8.33		mg/kg	1	0.10	1.0	04/10/12
Silver	7440-22-4	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428007
SAF# F11-092
Sample ID B2L2P4

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/04/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.2		mg/kg	1	1.2	3.8	04/04/12
Chloride	16887-00-6	LA-533-410		49.8		mg/kg	1	3.1	22	04/04/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.2	04/04/12
Nitrate-N	NO3-N	LA-533-410	B	1.26		mg/kg	1	0.99	5.3	04/04/12
Sulfate	14808-79-8	LA-533-410	B	11.8		mg/kg	1	5.8	56	04/04/12
Cr(VI) Prep										**04/05/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.095		ug/g	1	0.095	0.47	04/05/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		5.53		mg/kg	1	0.43	2.2	04/04/12
Boron	7440-42-8	LA-505-411	B	0.896		mg/kg	1	0.65	22	04/04/12
ICPMS Prep										**04/10/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412	N	348		mg/kg	1	0.10	1.0	04/10/12
Nickel	7440-02-0	LA-505-412		9.78		mg/kg	1	0.10	1.0	04/10/12
Silver	7440-22-4	LA-505-412	U	<0.051		mg/kg	1	0.051	0.51	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428008
SAF# F11-092
Sample ID B2L2Y2

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/04/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.1		mg/kg	1	1.1	3.7	04/04/12
Chloride	16887-00-6	LA-533-410	U	<3.0		mg/kg	1	3.0	21	04/04/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.1	04/04/12
Nitrate-N	NO3-N	LA-533-410	U	<0.97		mg/kg	1	0.97	5.2	04/04/12
Sulfate	14808-79-8	LA-533-410	B	5.87		mg/kg	1	5.7	55	04/04/12
Cr(VI) Prep										**04/05/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.099		ug/g	1	0.099	0.49	04/05/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		2.70		mg/kg	1	0.42	2.1	04/04/12
Boron	7440-42-8	LA-505-411	U	<0.63		mg/kg	1	0.63	22	04/04/12
ICPMS Prep										**04/10/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412	N	222		mg/kg	1	0.11	1.1	04/10/12
Nickel	7440-02-0	LA-505-412		4.53		mg/kg	1	0.11	1.1	04/10/12
Silver	7440-22-4	LA-505-412	U	<0.056		mg/kg	1	0.056	0.56	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428009
SAF# F11-092
Sample ID B2L2N5

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/04/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.2		mg/kg	1	1.2	3.9	04/04/12
Chloride	16887-00-6	LA-533-410	B	5.07		mg/kg	1	3.1	22	04/04/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.3	04/04/12
Nitrate-N	NO3-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.3	04/04/12
Sulfate	14808-79-8	LA-533-410	B	13.0		mg/kg	1	5.9	56	04/04/12
Cr(VI) Prep										**04/05/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.098		ug/g	1	0.098	0.49	04/05/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		7.29		mg/kg	1	0.44	2.2	04/04/12
Boron	7440-42-8	LA-505-411	U	<0.66		mg/kg	1	0.66	22	04/04/12
ICPMS Prep										**04/10/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412	N	291		mg/kg	1	0.12	1.2	04/10/12
Nickel	7440-02-0	LA-505-412		7.45		mg/kg	1	0.12	1.2	04/10/12
Silver	7440-22-4	LA-505-412	U	<0.060		mg/kg	1	0.060	0.60	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428010
SAF# F11-092
Sample ID B2L2X3

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/04/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.2		mg/kg	1	1.2	4.0	04/04/12
Chloride	16887-00-6	LA-533-410	B	6.74		mg/kg	1	3.2	22	04/04/12
Nitrite-N	NO2-N	LA-533-410	U	<1.1		mg/kg	1	1.1	5.4	04/04/12
Nitrate-N	NO3-N	LA-533-410	B	1.47		mg/kg	1	1.0	5.4	04/04/12
Sulfate	14808-79-8	LA-533-410	U	<6.0		mg/kg	1	6.0	58	04/04/12
Cr(VI) Prep										**04/05/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	04/05/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		6.20		mg/kg	1	0.44	2.2	04/04/12
Boron	7440-42-8	LA-505-411	U	<0.66		mg/kg	1	0.66	23	04/04/12
ICPMS Prep										**04/10/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412	N	298		mg/kg	1	0.11	1.1	04/10/12
Nickel	7440-02-0	LA-505-412		7.61		mg/kg	1	0.11	1.1	04/10/12
Silver	7440-22-4	LA-505-412	U	<0.056		mg/kg	1	0.056	0.56	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428011
SAF# F11-092
Sample ID B2L2T4

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/04/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.1		mg/kg	1	1.1	3.6	04/04/12
Chloride	16887-00-6	LA-533-410	U	<2.9		mg/kg	1	2.9	20	04/04/12
Nitrite-N	NO2-N	LA-533-410	U	<0.95		mg/kg	1	0.95	4.9	04/04/12
Nitrate-N	NO3-N	LA-533-410	U	<0.92		mg/kg	1	0.92	4.9	04/04/12
Sulfate	14808-79-8	LA-533-410	U	<5.4		mg/kg	1	5.4	52	04/04/12
Cr(VI) Prep										**04/10/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.097		ug/g	1	0.097	0.49	04/11/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411	U	<0.40		mg/kg	1	0.40	2.0	04/04/12
Boron	7440-42-8	LA-505-411	U	<0.60		mg/kg	1	0.60	20	04/04/12
ICPMS Prep										**04/10/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412	N	5.51		mg/kg	1	0.11	1.1	04/10/12
Nickel	7440-02-0	LA-505-412	U	<0.11		mg/kg	1	0.11	1.1	04/10/12
Silver	7440-22-4	LA-505-412	U	<0.053		mg/kg	1	0.053	0.53	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428012
SAF# F11-092
Sample ID B2L2V2

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/04/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.2		mg/kg	1	1.2	3.9	04/04/12
Chloride	16887-00-6	LA-533-410	B	21.2		mg/kg	1	3.1	22	04/04/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.3	04/04/12
Nitrate-N	NO3-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.3	04/04/12
Sulfate	14808-79-8	LA-533-410	B	19.9		mg/kg	1	5.9	56	04/04/12
Cr(VI) Prep										**04/10/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	04/11/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		7.30		mg/kg	1	0.43	2.2	04/04/12
Boron	7440-42-8	LA-505-411	U	<0.65		mg/kg	1	0.65	22	04/04/12
ICPMS Prep										**04/10/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412	N	279		mg/kg	1	0.10	1.0	04/10/12
Nickel	7440-02-0	LA-505-412		7.27		mg/kg	1	0.10	1.0	04/10/12
Silver	7440-22-4	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428013
SAF# F11-092
Sample ID B2L2T9

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/04/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.1		mg/kg	1	1.1	3.7	04/04/12
Chloride	16887-00-6	LA-533-410	U	<3.0		mg/kg	1	3.0	21	04/04/12
Nitrite-N	NO2-N	LA-533-410	U	<0.99		mg/kg	1	0.99	5.1	04/04/12
Nitrate-N	NO3-N	LA-533-410	U	<0.96		mg/kg	1	0.96	5.1	04/04/12
Sulfate	14808-79-8	LA-533-410	U	<5.7		mg/kg	1	5.7	54	04/04/12
Cr(VI) Prep										**04/10/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.092		ug/g	1	0.092	0.46	04/11/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		2.90		mg/kg	1	0.42	2.1	04/04/12
Boron	7440-42-8	LA-505-411	U	<0.63		mg/kg	1	0.63	22	04/04/12
ICPMS Prep										**04/10/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412	N	210		mg/kg	1	0.096	0.96	04/10/12
Nickel	7440-02-0	LA-505-412		5.61		mg/kg	1	0.096	0.96	04/10/12
Silver	7440-22-4	LA-505-412	U	<0.048		mg/kg	1	0.048	0.48	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428014
SAF# F11-092
Sample ID B2L2X6

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/04/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.2		mg/kg	1	1.2	3.8	04/04/12
Chloride	16887-00-6	LA-533-410	U	<3.0		mg/kg	1	3.0	21	04/04/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.1	04/04/12
Nitrate-N	NO3-N	LA-533-410	U	<0.97		mg/kg	1	0.97	5.2	04/04/12
Sulfate	14808-79-8	LA-533-410	U	<5.8		mg/kg	1	5.8	55	04/04/12
Cr(VI) Prep										**04/10/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.51	04/11/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		2.84		mg/kg	1	0.42	2.1	04/04/12
Boron	7440-42-8	LA-505-411	U	<0.63		mg/kg	1	0.63	22	04/04/12
ICPMS Prep										**04/10/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412	N	261		mg/kg	1	0.11	1.1	04/10/12
Nickel	7440-02-0	LA-505-412		5.97		mg/kg	1	0.11	1.1	04/10/12
Silver	7440-22-4	LA-505-412	U	<0.055		mg/kg	1	0.055	0.55	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428015
SAF# F11-092
Sample ID B2L2V5

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/04/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.2		mg/kg	1	1.2	3.8	04/04/12
Chloride	16887-00-6	LA-533-410	U	<3.1		mg/kg	1	3.1	22	04/04/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.2	04/04/12
Nitrate-N	NO3-N	LA-533-410	U	<0.99		mg/kg	1	0.99	5.3	04/04/12
Sulfate	14808-79-8	LA-533-410	B	12.9		mg/kg	1	5.9	56	04/04/12
Cr(VI) Prep										**04/10/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.095		ug/g	1	0.095	0.48	04/11/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		6.97		mg/kg	1	0.43	2.2	04/04/12
Boron	7440-42-8	LA-505-411	U	<0.65		mg/kg	1	0.65	22	04/04/12
ICPMS Prep										**04/10/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412	N	308		mg/kg	1	0.10	1.0	04/10/12
Nickel	7440-02-0	LA-505-412		8.34		mg/kg	1	0.10	1.0	04/10/12
Silver	7440-22-4	LA-505-412	U	<0.051		mg/kg	1	0.051	0.51	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428016
SAF# F11-092
Sample ID B2L2X0

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/04/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.2		mg/kg	1	1.2	3.9	04/04/12
Chloride	16887-00-6	LA-533-410	U	<3.1		mg/kg	1	3.1	22	04/04/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.3	04/04/12
Nitrate-N	NO3-N	LA-533-410	B	1.06		mg/kg	1	1.0	5.3	04/04/12
Sulfate	14808-79-8	LA-533-410	B	7.10		mg/kg	1	5.9	56	04/04/12
Cr(VI) Prep										**04/10/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.091		ug/g	1	0.091	0.45	04/11/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		6.94		mg/kg	1	0.43	2.2	04/04/12
Boron	7440-42-8	LA-505-411	U	<0.65		mg/kg	1	0.65	22	04/04/12
ICPMS Prep										**04/10/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412	N	276		mg/kg	1	0.099	0.99	04/10/12
Nickel	7440-02-0	LA-505-412		7.01		mg/kg	1	0.099	0.99	04/10/12
Silver	7440-22-4	LA-505-412	U	<0.049		mg/kg	1	0.049	0.49	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428017
SAF# F11-092
Sample ID B2L2P7

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/04/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.2		mg/kg	1	1.2	3.8	04/04/12
Chloride	16887-00-6	LA-533-410	B	6.68		mg/kg	1	3.0	21	04/04/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.1	04/04/12
Nitrate-N	NO3-N	LA-533-410	U	<0.98		mg/kg	1	0.98	5.2	04/04/12
Sulfate	14808-79-8	LA-533-410	U	<5.8		mg/kg	1	5.8	55	04/04/12
Cr(VI) Prep										**04/10/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.094		ug/g	1	0.094	0.47	04/11/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		4.25		mg/kg	1	0.42	2.1	04/04/12
Boron	7440-42-8	LA-505-411	U	<0.64		mg/kg	1	0.64	22	04/04/12
ICPMS Prep										**04/10/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412	N	286		mg/kg	1	0.12	1.2	04/10/12
Nickel	7440-02-0	LA-505-412		7.91		mg/kg	1	0.12	1.2	04/10/12
Silver	7440-22-4	LA-505-412	U	<0.058		mg/kg	1	0.058	0.58	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Sample # 120428018
SAF# F11-092
Sample ID B2L2X9

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/04/12**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	U	<1.1		mg/kg	1	1.1	3.8	04/04/12
Chloride	16887-00-6	LA-533-410	U	<3.0		mg/kg	1	3.0	21	04/04/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.1	04/04/12
Nitrate-N	NO3-N	LA-533-410	U	<0.97		mg/kg	1	0.97	5.2	04/04/12
Sulfate	14808-79-8	LA-533-410	B	9.95		mg/kg	1	5.7	55	04/04/12
Cr(VI) Prep										**04/10/12**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.52	04/11/12
ICP Prep										**04/03/12**
ICP-AES										
Lithium	7439-93-2	LA-505-411		2.88		mg/kg	1	0.42	2.1	04/04/12
Boron	7440-42-8	LA-505-411	U	<0.63		mg/kg	1	0.63	22	04/04/12
ICPMS Prep										**04/10/12**
ICP-MS										
Manganese	7439-96-5	LA-505-412	N	222		mg/kg	1	0.11	1.1	04/10/12
Nickel	7440-02-0	LA-505-412		5.37		mg/kg	1	0.11	1.1	04/10/12
Silver	7440-22-4	LA-505-412	U	<0.057		mg/kg	1	0.057	0.57	04/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

Sample # 120428001
SAF# F11-092
Sample ID B2L2V8

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		92		percent	1			04/04/12
pH on Soil										**04/05/12**
pH on Soil										
pH	PH	LA-212-411	J	8.95		unitless	1	0.010	0.50	04/05/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

Sample # 120428002
SAF# F11-092
Sample ID B2L2Y5

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		93		percent	1			04/04/12
pH on Soil										**04/05/12**
pH on Soil										
pH	PH	LA-212-411	J	8.64		unitless	1	0.010	0.50	04/05/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

Sample # 120428003
SAF# F11-092
Sample ID B2L2N8

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		90		percent	1			04/04/12
pH on Soil										**04/05/12**
pH on Soil										
pH	PH	LA-212-411	J	9.00		unitless	1	0.010	0.50	04/05/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

Sample # 120428004
SAF# F11-092
Sample ID B2L2W1

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		92		percent	1			04/04/12
pH on Soil										**04/05/12**
pH on Soil										
pH	PH	LA-212-411	J	9.21		unitless	1	0.010	0.50	04/05/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

Sample # 120428005
SAF# F11-092
Sample ID B2L2P1

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		87		percent	1			04/04/12
pH on Soil										**04/05/12**
pH on Soil										
pH	PH	LA-212-411	J	8.78		unitless	1	0.010	0.50	04/05/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

Sample # 120428006
SAF# F11-092
Sample ID B2L2Y8

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		92		percent	1			04/04/12
pH on Soil										**04/05/12**
pH on Soil										
pH	PH	LA-212-411	J	8.99		unitless	1	0.010	0.50	04/05/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

Sample # 120428007
SAF# F11-092
Sample ID B2L2P4

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		93		percent	1			04/04/12
pH on Soil										**04/05/12**
pH on Soil										
pH	PH	LA-212-411	J	8.90		unitless	1	0.010	0.50	04/05/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

Sample # 120428008
SAF# F11-092
Sample ID B2L2Y2

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		95		percent	1			04/04/12
pH on Soil										**04/05/12**
pH on Soil										
pH	PH	LA-212-411	J	9.21		unitless	1	0.010	0.50	04/05/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

Sample # 120428009
SAF# F11-092
Sample ID B2L2N5

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		91		percent	1			04/04/12
pH on Soil										**04/05/12**
pH on Soil										
pH	PH	LA-212-411	J	9.11		unitless	1	0.010	0.50	04/05/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

Sample # 120428010
SAF# F11-092
Sample ID B2L2X3

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		91		percent	1			04/04/12
pH on Soil										**04/05/12**
pH on Soil										
pH	PH	LA-212-411	J	9.03		unitless	1	0.010	0.50	04/05/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

Sample # 120428011
SAF# F11-092
Sample ID B2L2T4

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		100		percent	1			04/04/12
pH on Soil										**04/05/12**
pH on Soil										
pH	PH	LA-212-411	J	8.16		unitless	1	0.010	0.50	04/05/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

Sample # 120428012
SAF# F11-092
Sample ID B2L2V2

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		92		percent	1			04/04/12
pH on Soil										**04/05/12**
pH on Soil										
pH	PH	LA-212-411	J	9.17		unitless	1	0.010	0.50	04/05/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

Sample # 120428013
SAF# F11-092
Sample ID B2L2T9

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		95		percent	1			04/04/12
pH on Soil										**04/05/12**
pH on Soil										
pH	PH	LA-212-411	J	9.26		unitless	1	0.010	0.50	04/05/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

Sample # 120428014
SAF# F11-092
Sample ID B2L2X6

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		95		percent	1			04/04/12
pH on Soil										**04/05/12**
pH on Soil										
pH	PH	LA-212-411	J	9.17		unitless	1	0.010	0.50	04/05/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

Sample # 120428015
SAF# F11-092
Sample ID B2L2V5

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		93		percent	1			04/04/12
pH on Soil										**04/05/12**
pH on Soil										
pH	PH	LA-212-411	J	9.25		unitless	1	0.010	0.50	04/05/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

Sample # 120428016
SAF# F11-092
Sample ID B2L2X0

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		92		percent	1			04/04/12
pH on Soil										**04/05/12**
pH on Soil										
pH	PH	LA-212-411	J	9.05		unitless	1	0.010	0.50	04/05/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

Sample # 120428017
SAF# F11-092
Sample ID B2L2P7

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		94		percent	1			04/04/12
pH on Soil										**04/05/12**
pH on Soil										
pH	PH	LA-212-411	J	9.27		unitless	1	0.010	0.50	04/05/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

Sample # 120428018
SAF# F11-092
Sample ID B2L2X9

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/04/12**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		95		percent	1			04/04/12
pH on Soil										**04/05/12**
pH on Soil										
pH	PH	LA-212-411	J	9.30		unitless	1	0.010	0.50	04/05/12

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
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
WSCF120424

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
WSCF120424

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):

- All applicable QC controls are within the established limits.

ICP-AES 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):

- All 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 – MS / MSD Relative Percent Difference (RPD) is outside established laboratory limits. The quality control report was flagged for RPD failure. Affected sample results in this batch were "N" flagged.
- Chromium and Vanadium – 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.

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

- All applicable QC controls are within the established limits.

Radiochemistry Comments

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

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

- Gamma Energy Analysis:
  - All applicable QC controls are within the established limits.
- Americium-241:
  - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
  - All other applicable QC controls are within the established limits.

Attachment 2
Narrative
WSCF120424

- Isotopic Plutonium analysis:
  - Plutionium-239/240 – The Blank is less than two times the RDL. "B" Flag not required.
  - All other applicable QC controls are within the established limits.
- Isotopic Uranium analysis:
  - Uranium-234 and Uranium-238 – The Blank is less than two times the RDL. "B" Flag not required.
  - Uranium-235 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
  - All other applicable QC controls are within the established limits.
- Strontium-89/90:
  - All 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			F11-092-257	PAGE 1 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION Area AH In-Process Sample #1	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	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: 120424

PRESERVATION	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2M3	SOIL	MAR 28 2012	1100	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME MAR 28 2012 1500	RECEIVED BY/STORED IN SSU-1	DATE/TIME MAR 28 2012 1500	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME MAR 29 2012 0800	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME MAR 29 2012 0800	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME MAR 29 2012 0815	RECEIVED BY/STORED IN Cynthia R Johnson	DATE/TIME MAR 29 2012 0815	
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 3/26/2012

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-257	PAGE 2 OF 2
OLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days
AMPLING LOCATION Area AH In-Process Sample #1	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
CE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
HIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

PECIAL INSTRUCTIONS

Vest Side Sample #1 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI pplies 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, eryllium, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12 - DAY

RINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-260	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION: Area AH In-Process Sample #2	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-74-	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2M6 2	SOIL	MAR 28 2012	1120	✓	✓	✓	✓

12-044

CHAIN OF POSSESSION	DATE/TIME	SIGN/ PRINT NAMES: RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	MAR 28 2012 1500	SSU-1	MAR 28 2012 1500
RELINQUISHED BY/REMOVED FROM: SSU-1	MAR 29 2012 0800	RECEIVED BY/STORED IN: KG Patterson	MAR 29 2012 0800
RELINQUISHED BY/REMOVED FROM: KG Patterson, CHPRC	MAR 29 2012 0815	RECEIVED BY/STORED IN: Cynthia R Johnson	MAR 29 2012 0815
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/26/2012

A-6003 618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-260	PAGE 2 OF 2
LLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days
MPLING LOCATION ea All In-Process Sample #2	PROJECT DESIGNATION Area All In-Process Sampling - Soil		SAF NO. F11 092	AIR QUALITY ☐	
CHEST NO.	FIELD LOGBOOK NO. HNF -N-507-24-	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
IPPED TO aste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

ECIAL INSTRUCTIONS

est Side Sample #2 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI plies to this SAF.

) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, ryllium, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12- 044

NTED ON 3/26/2012 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-263	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION: Area AH In-Process Sample #3	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2M9 3	SOIL	MAR 28 2012	1300	✓	✓	✓	✓

TA 12- 047

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: MAR 28 2012 1500	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: MAR 28 2012 1500
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: MAR 29 2012 0800	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: MAR 29 2012 0800
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: MAR 29 2012 0815	RECEIVED BY/STORED IN: Cynthia R Johnson	DATE/TIME: MAR 29 2012 0815
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-263	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION Area AH In-Process Sample #3	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

West Side Sample #3 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12- 044

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-266	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION: Area AH In-Process Sample #4	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-21	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2N2 4	SOIL	MAR 28 2012	1307	✓	✓	✓	✓

12-043

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: MAR 28 2012 1500	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: MAR 28 2012 1500	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: MAR 29 2012 0800	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: MAR 29 2012 0800	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: MAR 29 2012 0815	RECEIVED BY/STORED IN: Cynthia R Johnson	DATE/TIME: MAR 29 2012 0815	
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 3/26/2012

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-266	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION Area AH In-Process Sample #4	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

West Side Sample #4 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-318	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION: Area AH 100-K-62 Sample #1	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2W4 5	SOIL	MAR 28 2012	1330	✓	✓	✓	✓

CPVL- 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: MAR 28 2012 1500	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: MAR 28 2012 1500
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: MAR 29 2012 0800	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: MAR 29 2012 0800
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: MAR 29 2012 0815	RECEIVED BY/STORED IN: Cynthia R Johnson	DATE/TIME: MAR 29 2012 0815
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-318	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-62 Sample #1	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12- 044

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-321	PAGE 1 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 35 Days~~ 12 days
SAMPLING LOCATION Area AH 100-K-62 Sample #2	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	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			Cool~4C	Cool~4C	None	None
HOLDING TIME			6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER			G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)			1	1	1	1
VOLUME			120mL	120mL	500mL	120mL
SAMPLE ANALYSIS			SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS
SAMPLE NO.	MATRIX*	SAMPLE DATE SAMPLE TIME				
B2L2W7 6	SOIL	MAR 28 2012 1347	✓	✓	✓	✓

12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME MAR 28 2012 1530	RECEIVED BY/STORED IN SSU-1	DATE/TIME MAR 28 2012 1500	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME MAR 29 2012 0800	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME MAR 29 2012 0800	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME MAR 29 2012 0815	RECEIVED BY/STORED IN Cynthia R Johnson	DATE/TIME MAR 29 2012 0815	
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 3/26/2012

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-321	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-62 Sample #2	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days OH 3/23/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12- 044

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-296	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION: Area AH In-Process Sample #14	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: N/A	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2T2 7	SOIL	MAR 28 2012	1050	✓	✓	✓	✓

TRVL-12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: MAR 28 2012 1500	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: MAR 28 2012 1500	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: MAR 29 2012 1000	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: MAR 29 2012 1000	
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: MAR 29 2012 0815	RECEIVED BY/STORED IN: Cynthia R Johnson	DATE/TIME: MAR 29 2012 0815	
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 3/27/2012

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-296	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #14	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH N/A	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

IFA 12- 044

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-300	PAGE 1 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION Area AH In-Process Sample #16	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2T6 8	SOIL	MAR 28 2012	~~130~~ 1330	✓	✓	✓	✓

12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME MAR 28 2012 1500	RECEIVED BY/STORED IN SSU-1	DATE/TIME MAR 28 2012 1500	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME MAR 29 2012 0800	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME MAR 29 2012 0800	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME MAR 29 2012 0815	RECEIVED BY/STORED IN Cynthia R Johnson	DATE/TIME MAR 29 2012 0815	
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 3/27/2012 A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST			F11-092-300	PAGE 2 OF 2
COLLECTOR FM Hali CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #16	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 3/29/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PA 12- 044

PRINTED ON 3/27/2012 A-6003-618 (REV 2)

Attachment 2
Narrative
WSCF120428

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
WSCF120428

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):

- All applicable QC controls are within the established limits.

ICP-AES 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):

- All 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):

- Batch QC 198390
  - Selenium – Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged. The quality control report was flagged for RPD failure.
  - Vanadium and Chromium – Detected in the Blank and evaluated. No sample results in this batch were affected. "C" Flags not required.
- Batch QC 198391
  - Manganese – Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - Vanadium and Chromium – 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.

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

- All applicable QC controls are within the established limits.

Radiochemistry Comments

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

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

Attachment 2
Narrative
WSCF120428

- Gamma Energy Analysis:
  - All applicable QC controls are within the established limits.
- Americium-241:
  - Batch QC 198292
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
  - Batch QC 198291
    - The Blank is less than two times the RDL. "B" Flag not required.
  - Batch QC 198290
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Poor reproducibility may be due to sample inhomogeneity. No flags issued.
    - Americium-243 – Tracer recovery did not meet the established laboratory limits for sample B2L2W1 (120428004). No flags issued on sample results. The quality control report was flagged for the failure.
    - All other applicable QC controls are within the established limits.
- Isotopic Plutonium analysis:
  - Batch QC 198290
    - Plutonium-238 - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Poor reproducibility may be due to sample inhomogeneity. No flags issued.
    - Plutonium-239/240 - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Poor reproducibility may be due to sample inhomogeneity. No flags issued.
    - All other applicable QC controls are within the established limits.
- Isotopic Uranium analysis:
  - Batch QC 198292

Attachment 2
Narrative
WSCF120428

- Uranium-235 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
- Uranium-234, Uranium-235 and Uranium-238 - The Blank is less than two times the RDL. "B" Flag not required.

  - Batch QC 198291
    - Uranium-234 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. No flags issued on sample results. The quality control report was flagged for RPD failure.
    - Uranium-234 and Uranium-238 - The Blank is less than two times the RDL. "B" Flag not required.
  - Batch QC 198290
    - Uranium-234 and Uranium-238 – The Blank is less than five times the MDC. "B" Flag not required.
    - All other applicable QC controls are within the established limits.

- Strontium-89/90:
  - Batch QC 198294
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
    - 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			F11-092-312	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 7 days 72
SAMPLING LOCATION: Area AH 100-K-46	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	4/1/12 4/1/12
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-2H	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10	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)

120428

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2V8 /	SOIL	APR 01 2012	0906	✓	✓	✓	✓

TRL- 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson Miner	DATE/TIME: APR 02 2012 0845	
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 3/26/2012

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-312	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION Area AH 100-K-46	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

TRL 12- 044

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-339	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH 100-K-53 Sample #1	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24-	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2Y5 2	SOIL	APR 01 2012	1216	✓	✓	✓	✓

APL 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0720
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: APR 02 2012 0845
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

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A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-339	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-53 Sample #1	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 4/1/11
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023FS20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12- 044

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-272	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH In-Process Sample #6	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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				Cool~4C	Cool~4C	None	None
HOLDING TIME				6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER				G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)				1	1	1	1
VOLUME				120mL	120mL	500mL	120mL
SAMPLE ANALYSIS				SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS
SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2L2N8	3	SOIL	APR 01 2012	1225	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
FM Hall	APR 01 2012 1400	SSU-1	APR 01 2012 1400	
SSU-1	APR 02 2012 0700	KC Patterson	APR 02 2012 0720	
KC Patterson	APR 02 2012 0845	M. Nelson	APR 02 2012 0845	
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 3/26/2012

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-272	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #6	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 4/1/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

East Side Sample #1 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-315	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/11/12
SAMPLING LOCATION: Area AH 119-KE	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2W1 4	SOIL	APR 01 2012	0855	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0720
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson Moers	DATE/TIME: APR 02 2012 0845
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-315	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 2/11/12
SAMPLING LOCATION Area AH 119-KE	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-34	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

044

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A-6003-61R (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-092-275	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C
SAMPLING LOCATION: Area AH In-Process Sample #7	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24-	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A	

DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12

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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2P1 5	SOIL	APR 01 2012	1237	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0770	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0770	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: APR 02 2012 0845	
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 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-275	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #7	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY	~~15 Days / 15 Days~~ 12 days 4/11/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

East Side Sample #2 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-092-342	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C; DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH 100-K-53 Sample #2	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None	
HOLDING TIME	6 Months	30 Days	6 Months	6 Months	
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P	
NO. OF CONTAINER(S)	1	1	1	1	
VOLUME	120mL	120mL	500mL	120mL	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2L2Y8 6	SOIL	APR 01 2012	1034	✓	✓ ✓ ✓

12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: APR 02 2012 0845	
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

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-342	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND ~~15 Days / 15 Days~~ 24 4/1/12 12 Days
SAMPLING LOCATION Area AH 100-K-53 Sample #2	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092		
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12- 044

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-278	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 24 4/11/12
SAMPLING LOCATION: Area AH In-Process Sample #8	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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		Cool~4C	Cool~4C	None	None
HOLDING TIME		6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER		G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)		1	1	1	1
VOLUME		120mL	120mL	500mL	120mL
SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2L2P4 7	SOIL	APR 01 2012	1248	✓	✓ ✓ ✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
FM Hall CHPRC	APR 01 2012 HCC	SSU-1	APR 01 2012 HCC	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
SSU-1	APR 02 2012 0720	KC Patterson CHPRC	APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
KC Patterson CHPRC	APR 02 2012 0825	M. Nelson	APR 02 2012 0825	
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

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-278	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE BC	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #8	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 4/1/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

East Side Sample #3 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-092-336	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C; DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH 100-K-62 Sample #7	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: [ ]
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 30271RES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2Y2	SOIL	APR 01 2012	0948	✓	✓	✓	✓

12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0720
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M Nelson	DATE/TIME: APR 02 2012 0845
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-336	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION Area AH 100-K-62 Sample #7	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12- 044

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-269	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH In-Process Sample #5	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2N5 9	SOIL	APR 01 2012	1048	✓	✓	✓	✓

12-041

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 APR 01 2012 0720	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: APR 02 2012 0845	
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 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-269	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days. 4/1/12
SAMPLING LOCATION Area AH In-Process Sample #5	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

West Side Sample #5 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-327	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 04/11/12
SAMPLING LOCATION: Area AH 100-K-62 Sample #4	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2X3 10	SOIL	APR 01 2012	0827	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM: KC Patterson	DATE/TIME: APR 02 2012 0815	RECEIVED BY/STORED IN: M. Nelsmkness	DATE/TIME: APR 02 2012 0815	
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 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-327	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/11/12
SAMPLING LOCATION Area AH 100-K-62 Sample #4	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092		
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12- 044

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A-5003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-298	PAGE 1 OF 2
COLLECTOR K. Patterson / CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND ~~15 Days / 15 Days~~ 4/11/12 12 days
SAMPLING LOCATION Area AH In-Process Sample #15	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092		
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH (N/A)	COA 302718ES10	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, OL=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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

TPA-12-044

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2T4 11	SOIL	APR 01 2012	0740	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM K. Patterson	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR 02 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR 02 2012 0700
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME APR 02 2012 0845	RECEIVED BY/STORED IN M. Nelson M. Nelson	DATE/TIME APR 02 2012 0845
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

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/27/2012

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-298	PAGE 2 OF 2
COLLECTOR K. Patterson	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/11/12
SAMPLING LOCATION Area AH In-Process Sample #15	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092		
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH (N/A)	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

SFA 12- 044

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-306	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH 100-K-6	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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 Solics, 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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2V2 12	SOIL	APR 01 2012	1023	✓	✓	✓	✓

12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0700	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0700	
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0815	RECEIVED BY/STORED IN: M. Nelson M. Nels	DATE/TIME: APR 02 2012 0815	
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 3/26/2012

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-306	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-6	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 24 4/1/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-303	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH In-Process Sample #17	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2T9 13	SOIL	APR 01 2012	0921	✓	✓	✓	✓

-044

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FM Hall	APR 01 2012 HCW	SSU-1	APR 01 2012 HCW
SSU-1	APR 02 2012 0720	RC Patterson CHPRC	APR 02 2012 0720
RC Patterson CHPRC	APR 02 2012 0845	M. Nelson M. Nelson	APR 02 2012 0845

SPECIAL INSTRUCTIONS: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/27/2012 A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-303	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/11/12
SAMPLING LOCATION Area AH In-Process Sample #17	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24.	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12- 044

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-330	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 45 Days~~ 12 days
SAMPLING LOCATION: Area AH 100-K-62 Sample #5	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2X6 14	SOIL	APR 01 2012	0921	✓	✓	✓	✓

044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0720
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: APR 02 2012 0845
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-330	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-62 Sample #5	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 4/11/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-309	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH 132-KE-1	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF -N-507-24-	ACTUAL SAMPLE DEPTH: Surface	COA: 302/18E510	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2V5 15	SOIL	APR 01 2012	1013	✓	✓	✓	✓

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CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0720
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: N. Nelson	DATE/TIME: APR 02 2012 0845
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/26/2012

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-309	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/11/12
SAMPLING LOCATION Area AH 132-KE-1	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092		
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302/18E510	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-324	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days
SAMPLING LOCATION: Area AH 100-K-62 Sample #3	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10	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	Cool-4C	Cool-4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2X0 16	SOIL	APR 01 2012	0816	✓	✓	✓	✓

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CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M Nelson M Nels	DATE/TIME: APR 02 2012 0845	
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

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Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-324	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-62 Sample #3	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 4/1/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-~~N-507~~-24-	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-281	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/16/12
SAMPLING LOCATION: Area AH In-Process Sample #9	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24.	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2P7 17	SOIL	APR 01 2012	1258	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: RC Patterson CHPRC	DATE/TIME: APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM: RC Patterson CHPRC	DATE/TIME: APR 02 2012 0815	RECEIVED BY/STORED IN: M.Nelson	DATE/TIME: APR 02 2012 0815	
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 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-281	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION Area AH In-Process Sample #9	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

East Side Sample #4 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-333	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: BC	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/3/12
SAMPLING LOCATION: Area AH 100-K-62 Sample #6	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-____-____	ACTUAL SAMPLE DEPTH	COA: 302718ES10	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				Cool~4C	Cool~4C	None	None
HOLDING TIME				6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER				G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)				1	1	1	1
VOLUME				120mL	120mL	500mL	120mL
SAMPLE ANALYSIS				SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2X9 18	SOIL	APR 0 1 2012	0934	✓	✓	✓	✓

12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: APR 0 1 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 0 1 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 0 2 2012 0720	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: APR 0 2 2012 0720	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: APR 0 2 2012 0845	RECEIVED BY/STORED IN: M Nelson	DATE/TIME: APR 0 2 2012 0845	
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 3/26/2012

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-092-333		PAGE 2 OF 2
OLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/11/12
AMPLING LOCATION Area AH 100-K-62 Sample #6	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
CE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
HIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

PECIAL INSTRUCTIONS

* The CACN for all analytical work at WSCF laboratory is 403023ES20.LJ** 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, eryllium, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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Appendix 5

Data Validation Supporting Documentation

VALIDATION LEVEL:	A	B	(C)	D	E
PROJECT: 100-K			DATA PACKAGE: VSR12-016		
VALIDATOR: Eyda Hergenreder		LAB: WSCF		DATE: 06-15-2012	
			SDG: WSCF120424, WSCF120428		
ANALYSES PERFORMED					
Anions/IC X	TOC	TOX	TPH-418.1	Oil and Grease	Alkalinity
Ammonia	BOD/COD	Chloride	Chromium-VI X	pH X	NO_3/NO_2
Sulfate	TDS	TKN	Phosphate	Cyanide	

SAMPLES/MATRIX Soil samples

SDG WSCF120424: B2L2M3, B2L2M6, B2L2M9, B2L2N2, B2L2W4, B2L2W7, B2L2T2, B2L2T6

SDG WSCF120428: B2L2V8, B2L2Y5, B2L2N8, B2L2W1, B2L2P1, B2L2Y8, B2L2P4, B2L2Y2, B2L2N5, B2L2X3, B2L2T4, B2L2V2, B2L2T9, B2L2X6, B2L2V5, B2L2X0, B2L2P7, B2L2X9,

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: 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. HOLDING TIMES (all levels)

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

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

Comments:
All samples were analyzed beyond 2X the recommended holding time.

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:

All MDL for Sulfate were > the RL

Comments (attach additional sheets as necessary):

More

Appendix 6

Additional Documentation Requested By Client

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120424

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198171	198394	5	BLANK	72449	BLANK		ICP-6010 - All possible metals
198171	198394	7	LCS	72451	LCS		ICP-6010 - All possible metals
198171	198394	8	SAMPLE	120424001	B2L2M3		ICP-6010 - All possible metals
198171	198394	9	MS	72452	B2L2M3(120424001MS)	120424001	ICP-6010 - All possible metals
198171	198394	10	MSD	72453	B2L2M3(120424001MSD)	120424001	ICP-6010 - All possible metals
198171	198394	11	SAMPLE	120424002	B2L2M6		ICP-6010 - All possible metals
198171	198394	12	SAMPLE	120424003	B2L2M9		ICP-6010 - All possible metals
198171	198394	13	SAMPLE	120424004	B2L2N2		ICP-6010 - All possible metals
198171	198394	14	SAMPLE	120424005	B2L2W4		ICP-6010 - All possible metals
198171	198394	15	SAMPLE	120424006	B2L2W7		ICP-6010 - All possible metals
198171	198394	16	SAMPLE	120424007	B2L2T2		ICP-6010 - All possible metals
198171	198394	17	SAMPLE	120424008	B2L2T6		ICP-6010 - All possible metals
198203	198413	1	BLANK	72505	BLANK		Anions by Ion Chromatography (Solid)
198203	198413	3	LCS	72507	LCS		Anions by Ion Chromatography (Solid)
198203	198413	4	MS	72508	B2L2T2(120424007MS)	120424007	Anions by Ion Chromatography (Solid)
198203	198413	5	MSD	72509	B2L2T2(120424007MSD)	120424007	Anions by Ion Chromatography (Solid)
198203	198413	6	DUP	72510	B2L2T2(120424007DUP)	120424007	Anions by Ion Chromatography (Solid)
198203	198413	7	SAMPLE	120424007	B2L2T2		Anions by Ion Chromatography (Solid)
198203	198413	8	SAMPLE	120424001	B2L2M3		Anions by Ion Chromatography (Solid)
198203	198413	9	SAMPLE	120424002	B2L2M6		Anions by Ion Chromatography (Solid)
198203	198413	10	SAMPLE	120424003	B2L2M9		Anions by Ion Chromatography (Solid)
198203	198413	11	SAMPLE	120424004	B2L2N2		Anions by Ion Chromatography (Solid)
198203	198413	12	SAMPLE	120424005	B2L2W4		Anions by Ion Chromatography (Solid)

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120424

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198203	198413	13	SAMPLE	120424006	B2L2W7		Anions by Ion Chromatography (Solid)
198203	198413	14	SAMPLE	120424008	B2L2T6		Anions by Ion Chromatography (Solid)
198390	198430	4	BLANK	72564	BLANK		ICP-2008 MS All possible metal
198390	198430	5	LCS	72565	LCS		ICP-2008 MS All possible metal
198390	198430	6	SAMPLE	120424001	B2L2M3		ICP-2008 MS All possible metal
198390	198430	7	MS	72566	B2L2M3(120424001MS)	120424001	ICP-2008 MS All possible metal
198390	198430	8	MSD	72567	B2L2M3(120424001MSD)	120424001	ICP-2008 MS All possible metal
198390	198430	9	SAMPLE	120424002	B2L2M6		ICP-2008 MS All possible metal
198390	198430	10	SAMPLE	120424003	B2L2M9		ICP-2008 MS All possible metal
198390	198430	11	SAMPLE	120424004	B2L2N2		ICP-2008 MS All possible metal
198390	198430	12	SAMPLE	120424005	B2L2W4		ICP-2008 MS All possible metal
198390	198430	13	SAMPLE	120424006	B2L2W7		ICP-2008 MS All possible metal
198390	198430	14	SAMPLE	120424007	B2L2T2		ICP-2008 MS All possible metal
198390	198430	15	SAMPLE	120424008	B2L2T6		ICP-2008 MS All possible metal
198390	198599	1	LCS	72565	LCS		ICP-2008 MS All possible metal
198390	198599	2	BLANK	72564	BLANK		ICP-2008 MS All possible metal
198390	198599	10	SAMPLE	120424007	B2L2T2		ICP-2008 MS All possible metal
198390	198599	11	SAMPLE	120424008	B2L2T6		ICP-2008 MS All possible metal
198390	198599	12	SAMPLE	120424006	B2L2W7		ICP-2008 MS All possible metal
198390	198599	13	SAMPLE	120424004	B2L2N2		ICP-2008 MS All possible metal
198390	198599	14	SAMPLE	120424005	B2L2W4		ICP-2008 MS All possible metal
198390	198599	15	SAMPLE	120424003	B2L2M9		ICP-2008 MS All possible metal
198390	198599	16	SAMPLE	120424002	B2L2M6		ICP-2008 MS All possible metal

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120424

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198390	198599	17	MSD	72567	B2L2M3(120424001MSD)	120424001	ICP-2008 MS All possible metal
198390	198599	18	MS	72566	B2L2M3(120424001MS)	120424001	ICP-2008 MS All possible metal
198390	198599	19	SAMPLE	120424001	B2L2M3		ICP-2008 MS All possible metal
198432	198433	1	BLANK	72713	BLANK		Hexavalent chromium
198432	198433	4	LCS	72714	LCS		Hexavalent chromium
198432	198433	5	DUP	72715	B2L2V8(120428001DUP)	120428001	Hexavalent chromium
198432	198433	6	MS	72716	B2L2V8(120428001MS)	120428001	Hexavalent chromium
198432	198433	7	PSTSPK	72717	PSTSPK		Hexavalent chromium
198432	198433	8	IMS	72718	B2L2V8(120428001IMS)	120428001	Hexavalent chromium
198432	198433	10	SAMPLE	120424001	B2L2M3		Hexavalent chromium
198432	198433	11	SAMPLE	120424002	B2L2M6		Hexavalent chromium
198432	198433	12	SAMPLE	120424003	B2L2M9		Hexavalent chromium
198432	198433	13	SAMPLE	120424004	B2L2N2		Hexavalent chromium
198432	198433	14	SAMPLE	120424005	B2L2W4		Hexavalent chromium
198432	198433	15	SAMPLE	120424006	B2L2W7		Hexavalent chromium
198432	198433	16	SAMPLE	120424007	B2L2T2		Hexavalent chromium
198432	198433	17	SAMPLE	120424008	B2L2T6		Hexavalent chromium

Batch QC List

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120424

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198207	198207	1	LCS	72516	LCS		Soil And Waste pH Measurement
198207	198207	2	DUP	72517	B2L2M3(120424001DUP)	120424001	Soil And Waste pH Measurement
198207	198207	3	SAMPLE	120424001	B2L2M3		Soil And Waste pH Measurement
198207	198207	4	SAMPLE	120424002	B2L2M6		Soil And Waste pH Measurement
198207	198207	5	SAMPLE	120424003	B2L2M9		Soil And Waste pH Measurement
198207	198207	6	SAMPLE	120424004	B2L2N2		Soil And Waste pH Measurement
198207	198207	7	SAMPLE	120424005	B2L2W4		Soil And Waste pH Measurement
198207	198207	8	SAMPLE	120424006	B2L2W7		Soil And Waste pH Measurement
198207	198207	9	SAMPLE	120424007	B2L2T2		Soil And Waste pH Measurement
198207	198207	10	SAMPLE	120424008	B2L2T6		Soil And Waste pH Measurement
198207	198207	11	LCS	72563	LCS		Soil And Waste pH Measurement
198503	198503	1	SAMPLE	120424001	B2L2M3		Dry Weight/Percent Moisture
198503	198503	2	DUP	72758	B2L2M3(120424001DUP)	120424001	Dry Weight/Percent Moisture
198503	198503	3	SAMPLE	120424002	B2L2M6		Dry Weight/Percent Moisture
198503	198503	4	SAMPLE	120424003	B2L2M9		Dry Weight/Percent Moisture
198503	198503	5	SAMPLE	120424004	B2L2N2		Dry Weight/Percent Moisture
198503	198503	6	SAMPLE	120424005	B2L2W4		Dry Weight/Percent Moisture
198503	198503	7	SAMPLE	120424006	B2L2W7		Dry Weight/Percent Moisture
198503	198503	8	SAMPLE	120424007	B2L2T2		Dry Weight/Percent Moisture
198503	198503	9	SAMPLE	120424008	B2L2T6		Dry Weight/Percent Moisture

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120424

QC Batch 198203 **Test** Anions by Ion Chromatography (Solid)
Associated Samples 120424001, 120424002, 120424003, 120424004, 120424005, 120424006, 120424007, 120424008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #72505**							
Fluoride	16984-48-8		<0.023	ug/mL					U	04/02/12
Chloride	16887-00-6		<0.058	ug/mL					U	04/02/12
Nitrite-N	NO2-N		<0.019	ug/mL					U	04/02/12
Nitrate-N	NO3-N		<0.019	ug/mL					U	04/02/12
Sulfate	14808-79-8		<0.11	ug/mL					U	04/02/12
LCS			**QC Sample #72507**							
Fluoride	16984-48-8		0.978	ug/mL	98.8	90 - 110				04/02/12
Chloride	16887-00-6		1.91	ug/mL	96.2	90 - 110				04/02/12
Nitrite-N	NO2-N		0.998	ug/mL	102	90 - 110				04/02/12
Nitrate-N	NO3-N		0.892	ug/mL	100.7	90 - 110				04/02/12
Sulfate	14808-79-8		3.73	ug/mL	95.2	90 - 110				04/02/12
MS			**QC Sample #72508**							
			Original 120424007							
Fluoride	16984-48-8	<1.1	22.3	mg/kg	89.7	80 - 120				04/02/12
Chloride	16887-00-6	<2.9	46.6	mg/kg	93.6	80 - 120				04/02/12
Nitrite-N	NO2-N	<0.95	24.3	mg/kg	98.7	80 - 120				04/02/12
Nitrate-N	NO3-N	<0.92	22.0	mg/kg	98.7	80 - 120				04/02/12
Sulfate	14808-79-8	<5.4	92.7	mg/kg	93.9	80 - 120				04/02/12

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120424

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MSD			**QC Sample #72509**							
			Original 120424007					**Paired**	**72508**	
Fluoride	16984-48-8	<1.1	22.0	mg/kg	89	80 - 120	1.40	30		04/02/12
Chloride	16887-00-6	<2.9	43.8	mg/kg	88.4	80 - 120	6.20	30		04/02/12
Nitrite-N	NO2-N	<0.95	24.1	mg/kg	98.5	80 - 120	0.80	30		04/02/12
Nitrate-N	NO3-N	<0.92	21.9	mg/kg	98.6	80 - 120	0.50	30		04/02/12
Sulfate	14808-79-8	<5.4	93.4	mg/kg	95.2	80 - 120	0.80	30		04/02/12
DUP			**QC Sample #72510**							
			Original 120424007							
Fluoride	16984-48-8	<1.1	<1.1	mg/kg			0.00	30	U	04/02/12
Chloride	16887-00-6	<2.9	<2.9	mg/kg			3.00	30	U	04/02/12
Nitrite-N	NO2-N	<0.95	<0.95	mg/kg			0.00	30	U	04/02/12
Nitrate-N	NO3-N	<0.92	<0.92	mg/kg			1.50	30	U	04/02/12
Sulfate	14808-79-8	<5.4	<5.5	mg/kg			1.40	30	U	04/02/12

Quality Control Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120424

QC Batch 198207 **Test** Soil And Waste pH Measurement
Associated Samples 120424001, 120424002, 120424003, 120424004, 120424005, 120424006, 120424007, 120424008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS			**QC Sample #72516**							
pH	PH		8.05	unitless	100.6	98.75 - 101.25				04/02/12
DUP			**QC Sample #72517**							
			Original 120424001							
pH	PH	7.98	7.93	unitless			0.60	30		04/02/12
LCS			**QC Sample #72563**							
pH	PH		8.06	unitless	100.8	98.75 - 101.25				04/02/12

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120424

QC Batch 198432 **Test** Hexavalent chromium
Associated Samples 120424001, 120424002, 120424003, 120424004, 120424005, 120424006, 120424007, 120424008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #72713**								
Hexavalent chromium	18540-29-9		<0.093	ug/g						U	04/05/12
LCS			**QC Sample #72714**								
Hexavalent chromium	18540-29-9		3.74	ug/g	96.8	80 - 120					04/05/12
DUP			**QC Sample #72715**								
			Original 120428001								
Hexavalent chromium	18540-29-9		<0.10	ug/g			32.30	30	*	UX	04/05/12
MS			**QC Sample #72716**								
			Original 120428001								
Hexavalent chromium	18540-29-9		3.57	ug/g	94.1	75 - 125					04/05/12
PSTSPK			**QC Sample #72717**								
Hexavalent chromium	18540-29-9		0.0558	ug/g	111.6	85 - 115					04/05/12
IMS			**QC Sample #72718**								
			Original 120428001								
Hexavalent chromium	18540-29-9		353	ug/g	87.3	75 - 125					04/05/12

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120428

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198391	198667	17	SAMPLE	120428004	B2L2W1		ICP-2008 MS All possible metal
198391	198667	18	SAMPLE	120428018	B2L2X9		ICP-2008 MS All possible metal
198391	198667	19	SAMPLE	120428012	B2L2V2		ICP-2008 MS All possible metal
198391	198667	20	SAMPLE	120428016	B2L2X0		ICP-2008 MS All possible metal
198391	198667	21	SAMPLE	120428017	B2L2P7		ICP-2008 MS All possible metal
198391	198667	22	SAMPLE	120428011	B2L2T4		ICP-2008 MS All possible metal
198391	198667	23	SAMPLE	120428014	B2L2X6		ICP-2008 MS All possible metal
198391	198667	24	SAMPLE	120428015	B2L2V5		ICP-2008 MS All possible metal
198391	198667	25	SAMPLE	120428010	B2L2X3		ICP-2008 MS All possible metal
198418	198419	1	BLANK	72641	BLANK		Anions by Ion Chromatography (Solid)
198418	198419	3	LCS	72643	LCS		Anions by Ion Chromatography (Solid)
198418	198419	4	MS	72644	B2L2Y5(120428002MS)	120428002	Anions by Ion Chromatography (Solid)
198418	198419	5	MSD	72645	B2L2Y5(120428002MSD)	120428002	Anions by Ion Chromatography (Solid)
198418	198419	6	DUP	72646	B2L2Y5(120428002DUP)	120428002	Anions by Ion Chromatography (Solid)
198418	198419	8	SAMPLE	120428001	B2L2V8		Anions by Ion Chromatography (Solid)
198418	198419	9	SAMPLE	120428002	B2L2Y5		Anions by Ion Chromatography (Solid)
198418	198419	10	SAMPLE	120428003	B2L2N8		Anions by Ion Chromatography (Solid)
198418	198419	11	SAMPLE	120428004	B2L2W1		Anions by Ion Chromatography (Solid)
198418	198419	12	SAMPLE	120428005	B2L2P1		Anions by Ion Chromatography (Solid)
198418	198419	13	SAMPLE	120428006	B2L2Y8		Anions by Ion Chromatography (Solid)
198418	198419	14	SAMPLE	120428007	B2L2P4		Anions by Ion Chromatography (Solid)
198418	198419	15	SAMPLE	120428008	B2L2Y2		Anions by Ion Chromatography (Solid)
198418	198419	16	SAMPLE	120428009	B2L2N5		Anions by Ion Chromatography (Solid)

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120428

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198420	198421	1	BLANK	72648	BLANK		Anions by Ion Chromatography (Solid)
198420	198421	3	LCS	72650	LCS		Anions by Ion Chromatography (Solid)
198420	198421	4	MS	72651	B2L2X3(120428010MS)	120428010	Anions by Ion Chromatography (Solid)
198420	198421	5	MSD	72652	B2L2X3(120428010MSD)	120428010	Anions by Ion Chromatography (Solid)
198420	198421	6	DUP	72653	B2L2X3(120428010DUP)	120428010	Anions by Ion Chromatography (Solid)
198420	198421	8	SAMPLE	120428010	B2L2X3		Anions by Ion Chromatography (Solid)
198420	198421	9	SAMPLE	120428011	B2L2T4		Anions by Ion Chromatography (Solid)
198420	198421	10	SAMPLE	120428012	B2L2V2		Anions by Ion Chromatography (Solid)
198420	198421	11	SAMPLE	120428013	B2L2T9		Anions by Ion Chromatography (Solid)
198420	198421	12	SAMPLE	120428014	B2L2X6		Anions by Ion Chromatography (Solid)
198420	198421	13	SAMPLE	120428015	B2L2V5		Anions by Ion Chromatography (Solid)
198420	198421	14	SAMPLE	120428016	B2L2X0		Anions by Ion Chromatography (Solid)
198420	198421	15	SAMPLE	120428017	B2L2P7		Anions by Ion Chromatography (Solid)
198420	198421	16	SAMPLE	120428018	B2L2X9		Anions by Ion Chromatography (Solid)
198432	198433	1	BLANK	72713	BLANK		Hexavalent chromium
198432	198433	4	LCS	72714	LCS		Hexavalent chromium
198432	198433	5	DUP	72715	B2L2V8(120428001DUP)	120428001	Hexavalent chromium
198432	198433	6	MS	72716	B2L2V8(120428001MS)	120428001	Hexavalent chromium
198432	198433	7	PSTSPK	72717	PSTSPK		Hexavalent chromium
198432	198433	8	IMS	72718	B2L2V8(120428001IMS)	120428001	Hexavalent chromium
198432	198433	9	SAMPLE	120428001	B2L2V8		Hexavalent chromium
198432	198433	19	SAMPLE	120428002	B2L2Y5		Hexavalent chromium
198432	198433	20	SAMPLE	120428003	B2L2N8		Hexavalent chromium

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120428

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198432	198433	21	SAMPLE	120428004	B2L2W1		Hexavalent chromium
198432	198433	22	SAMPLE	120428005	B2L2P1		Hexavalent chromium
198432	198433	23	SAMPLE	120428006	B2L2Y8		Hexavalent chromium
198432	198433	24	SAMPLE	120428007	B2L2P4		Hexavalent chromium
198432	198433	25	SAMPLE	120428008	B2L2Y2		Hexavalent chromium
198432	198433	26	SAMPLE	120428009	B2L2N5		Hexavalent chromium
198432	198433	27	SAMPLE	120428010	B2L2X3		Hexavalent chromium
198662	198663	1	BLANK	72945	BLANK		Hexavalent chromium
198662	198663	4	LCS	72946	LCS		Hexavalent chromium
198662	198663	5	DUP	72947	(120428014DUP)	120428014	Hexavalent chromium
198662	198663	6	MS	72948	(120428014MS)	120428014	Hexavalent chromium
198662	198663	7	PSTSPK	72949	PSTSPK		Hexavalent chromium
198662	198663	8	IMS	72950	(120428014IMS)	120428014	Hexavalent chromium
198662	198663	9	SAMPLE	120428014	B2L2X6		Hexavalent chromium
198662	198663	10	SAMPLE	120428011	B2L2T4		Hexavalent chromium
198662	198663	11	SAMPLE	120428012	B2L2V2		Hexavalent chromium
198662	198663	12	SAMPLE	120428013	B2L2T9		Hexavalent chromium
198662	198663	13	SAMPLE	120428015	B2L2V5		Hexavalent chromium
198662	198663	14	SAMPLE	120428016	B2L2X0		Hexavalent chromium
198662	198663	15	SAMPLE	120428017	B2L2P7		Hexavalent chromium
198662	198663	16	SAMPLE	120428018	B2L2X9		Hexavalent chromium

Batch QC List

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198503	198503	2	DUP	72758	B2L2M3(120424001DUP)	120424001	Dry Weight/Percent Moisture
198503	198503	10	SAMPLE	120428001	B2L2V8		Dry Weight/Percent Moisture
198503	198503	11	SAMPLE	120428002	B2L2Y5		Dry Weight/Percent Moisture
198503	198503	12	SAMPLE	120428003	B2L2N8		Dry Weight/Percent Moisture
198503	198503	13	SAMPLE	120428004	B2L2W1		Dry Weight/Percent Moisture
198503	198503	14	SAMPLE	120428005	B2L2P1		Dry Weight/Percent Moisture
198503	198503	15	SAMPLE	120428006	B2L2Y8		Dry Weight/Percent Moisture
198503	198503	16	SAMPLE	120428007	B2L2P4		Dry Weight/Percent Moisture
198503	198503	17	SAMPLE	120428008	B2L2Y2		Dry Weight/Percent Moisture
198503	198503	18	SAMPLE	120428009	B2L2N5		Dry Weight/Percent Moisture
198503	198503	19	SAMPLE	120428010	B2L2X3		Dry Weight/Percent Moisture
198503	198503	20	SAMPLE	120428011	B2L2T4		Dry Weight/Percent Moisture
198503	198503	22	SAMPLE	120428012	B2L2V2		Dry Weight/Percent Moisture
198503	198503	23	SAMPLE	120428013	B2L2T9		Dry Weight/Percent Moisture
198503	198503	24	SAMPLE	120428014	B2L2X6		Dry Weight/Percent Moisture
198503	198503	25	SAMPLE	120428015	B2L2V5		Dry Weight/Percent Moisture
198503	198503	26	SAMPLE	120428016	B2L2X0		Dry Weight/Percent Moisture
198503	198503	27	SAMPLE	120428017	B2L2P7		Dry Weight/Percent Moisture
198503	198503	28	SAMPLE	120428018	B2L2X9		Dry Weight/Percent Moisture
198506	198506	1	LCS	72766	LCS		Soil And Waste pH Measurement
198506	198506	2	DUP	72767	B2L2V8(120428001DUP)	120428001	Soil And Waste pH Measurement
198506	198506	3	SAMPLE	120428001	B2L2V8		Soil And Waste pH Measurement
198506	198506	4	SAMPLE	120428002	B2L2Y5		Soil And Waste pH Measurement

Batch QC List

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198506	198506	5	SAMPLE	120428003	B2L2N8		Soil And Waste pH Measurement
198506	198506	6	SAMPLE	120428004	B2L2W1		Soil And Waste pH Measurement
198506	198506	7	SAMPLE	120428005	B2L2P1		Soil And Waste pH Measurement
198506	198506	8	SAMPLE	120428006	B2L2Y8		Soil And Waste pH Measurement
198506	198506	9	SAMPLE	120428007	B2L2P4		Soil And Waste pH Measurement
198506	198506	10	SAMPLE	120428008	B2L2Y2		Soil And Waste pH Measurement
198506	198506	11	SAMPLE	120428009	B2L2N5		Soil And Waste pH Measurement
198506	198506	12	SAMPLE	120428010	B2L2X3		Soil And Waste pH Measurement
198506	198506	13	LCS	72768	LCS		Soil And Waste pH Measurement
198506	198506	14	SAMPLE	120428011	B2L2T4		Soil And Waste pH Measurement
198506	198506	16	SAMPLE	120428012	B2L2V2		Soil And Waste pH Measurement
198506	198506	17	SAMPLE	120428013	B2L2T9		Soil And Waste pH Measurement
198506	198506	18	SAMPLE	120428014	B2L2X6		Soil And Waste pH Measurement
198506	198506	19	SAMPLE	120428015	B2L2V5		Soil And Waste pH Measurement
198506	198506	20	SAMPLE	120428016	B2L2X0		Soil And Waste pH Measurement
198506	198506	21	SAMPLE	120428017	B2L2P7		Soil And Waste pH Measurement
198506	198506	22	SAMPLE	120428018	B2L2X9		Soil And Waste pH Measurement
198506	198506	23	LCS	72769	LCS		Soil And Waste pH Measurement

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120428

QC Batch 198418 **Test** Anions by Ion Chromatography (Solid)
Associated Samples 120428001, 120428002, 120428003, 120428004, 120428005, 120428006, 120428007, 120428008, 120428009

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #72641**							
Fluoride	16984-48-8		<0.023	ug/mL					U	04/04/12
Chloride	16887-00-6		<0.058	ug/mL					U	04/04/12
Nitrite-N	NO2-N		<0.019	ug/mL					U	04/04/12
Nitrate-N	NO3-N		<0.019	ug/mL					U	04/04/12
Sulfate	14808-79-8		<0.11	ug/mL					U	04/04/12
LCS			**QC Sample #72643**							
Fluoride	16984-48-8		0.933	ug/mL	94.2	90 - 110				04/04/12
Chloride	16887-00-6		1.79	ug/mL	90.3	90 - 110				04/04/12
Nitrite-N	NO2-N		0.993	ug/mL	101.5	90 - 110				04/04/12
Nitrate-N	NO3-N		0.893	ug/mL	100.9	90 - 110				04/04/12
Sulfate	14808-79-8		3.69	ug/mL	94.2	90 - 110				04/04/12
MS			**QC Sample #72644**							
			Original 120428002							
Fluoride	16984-48-8	<1.2	21.2	mg/kg	85.2	80 - 120				04/04/12
Chloride	16887-00-6	4.13	42.1	mg/kg	84.5	80 - 120				04/04/12
Nitrite-N	NO2-N	<1.0	23.8	mg/kg	96.5	80 - 120				04/04/12
Nitrate-N	NO3-N	1.28	21.3	mg/kg	95.6	80 - 120				04/04/12
Sulfate	14808-79-8	8.89	89.3	mg/kg	90.5	80 - 120				04/04/12

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MSD			**QC Sample #72645**							
			Original 120428002					**Paired**	**72644**	
Fluoride	16984-48-8	<1.2	21.0	mg/kg	84.9	80 - 120	0.90	30		04/04/12
Chloride	16887-00-6	4.13	41.0	mg/kg	82.7	80 - 120	2.60	30		04/04/12
Nitrite-N	NO2-N	<1.0	23.8	mg/kg	97.2	80 - 120	0.00	30		04/04/12
Nitrate-N	NO3-N	1.28	21.1	mg/kg	95.3	80 - 120	0.90	30		04/04/12
Sulfate	14808-79-8	8.89	89.2	mg/kg	90.8	80 - 120	0.20	30		04/04/12
DUP			**QC Sample #72646**							
			Original 120428002							
Fluoride	16984-48-8	<1.2	<1.2	mg/kg			0.00	30	U	04/04/12
Chloride	16887-00-6	4.13	3.61	mg/kg			13.40	30	B	04/04/12
Nitrite-N	NO2-N	<1.0	<1.0	mg/kg			0.00	30	U	04/04/12
Nitrate-N	NO3-N	1.28	1.29	mg/kg			1.70	30	B	04/04/12
Sulfate	14808-79-8	8.89	9.39	mg/kg			5.40	30	B	04/04/12

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120428

QC Batch 198420 **Test** Anions by Ion Chromatography (Solid)
Associated Samples 120428010, 120428011, 120428012, 120428013, 120428014, 120428015, 120428016, 120428017, 120428018

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #72648**							
Fluoride	16984-48-8		<0.023	ug/mL					U	04/04/12
Chloride	16887-00-6		<0.058	ug/mL					U	04/04/12
Nitrite-N	NO2-N		<0.019	ug/mL					U	04/04/12
Nitrate-N	NO3-N		<0.019	ug/mL					U	04/04/12
Sulfate	14808-79-8		<0.11	ug/mL					U	04/04/12
LCS			**QC Sample #72650**							
Fluoride	16984-48-8		0.935	ug/mL	94.4	90 - 110				04/04/12
Chloride	16887-00-6		1.80	ug/mL	90.8	90 - 110				04/04/12
Nitrite-N	NO2-N		1.00	ug/mL	102.3	90 - 110				04/04/12
Nitrate-N	NO3-N		0.896	ug/mL	101.2	90 - 110				04/04/12
Sulfate	14808-79-8		3.74	ug/mL	95.5	90 - 110				04/04/12
MS			**QC Sample #72651**							
			Original 120428010							
Fluoride	16984-48-8	<1.2	21.0	mg/kg	83.2	80 - 120				04/04/12
Chloride	16887-00-6	6.74	41.7	mg/kg	82.6	80 - 120				04/04/12
Nitrite-N	NO2-N	<1.1	24.3	mg/kg	97.4	80 - 120				04/04/12
Nitrate-N	NO3-N	1.47	21.7	mg/kg	96.1	80 - 120				04/04/12
Sulfate	14808-79-8	<6.0	96.7	mg/kg	96.7	80 - 120				04/04/12

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120428

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MSD			**QC Sample #72652**							
			Original 120428010					**Paired**	**72651**	
Fluoride	16984-48-8	<1.2	21.3	mg/kg	84.7	80 - 120	1.40	30		04/04/12
Chloride	16887-00-6	6.74	43.6	mg/kg	86.8	80 - 120	4.10	30		04/04/12
Nitrite-N	NO2-N	<1.1	24.3	mg/kg	98	80 - 120	0.00	30		04/04/12
Nitrate-N	NO3-N	1.47	22.2	mg/kg	98.9	80 - 120	2.60	30		04/04/12
Sulfate	14808-79-8	<6.0	95.5	mg/kg	95.9	80 - 120	1.20	30		04/04/12
DUP			**QC Sample #72653**							
			Original 120428010							
Fluoride	16984-48-8	<1.2	<1.2	mg/kg			0.00	30	U	04/04/12
Chloride	16887-00-6	6.74	7.29	mg/kg			7.80	30	B	04/04/12
Nitrite-N	NO2-N	<1.1	<1.1	mg/kg			0.00	30	U	04/04/12
Nitrate-N	NO3-N	1.47	1.32	mg/kg			11.90	30	B	04/04/12
Sulfate	14808-79-8	<6.0	<6.0	mg/kg			4.70	30	U	04/04/12

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120428

QC Batch 198432 **Test** Hexavalent chromium
Associated Samples 120428001, 120428002, 120428003, 120428004, 120428005, 120428006, 120428007, 120428008, 120428009, 120428010

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #72713**								
Hexavalent chromium	18540-29-9		<0.093	ug/g						U	04/05/12
LCS			**QC Sample #72714**								
Hexavalent chromium	18540-29-9		3.74	ug/g	96.8	80 - 120					04/05/12
DUP			**QC Sample #72715**								
			Original 120428001								
Hexavalent chromium	18540-29-9	<0.11	<0.10	ug/g			32.30	30	*	UX	04/05/12
MS			**QC Sample #72716**								
			Original 120428001								
Hexavalent chromium	18540-29-9	<0.11	3.57	ug/g	94.1	75 - 125					04/05/12
PSTSPK			**QC Sample #72717**								
Hexavalent chromium	18540-29-9		0.0558	ug/g	111.6	85 - 115					04/05/12
IMS			**QC Sample #72718**								
			Original 120428001								
Hexavalent chromium	18540-29-9	<0.11	353	ug/g	87.3	75 - 125					04/05/12

Quality Control Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

QC Batch 198503 **Test** Dry Weight/Percent Moisture

Associated Samples 120428001, 120428002, 120428003, 120428004, 120428005, 120428006, 120428007, 120428008, 120428009, 120428010, 120428011, 120428012, 120428013, 120428014, 120428015, 120428016, 120428017, 120428018

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
DUP			**QC Sample #72758**						
			Original 120424001						
Percent Solids	%SOLIDS		93	percent		0.00	5		04/04/12

Quality Control Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF120428

QC Batch 198506 **Test** Soil And Waste pH Measurement
Associated Samples 120428001, 120428002, 120428003, 120428004, 120428005, 120428006, 120428007, 120428008, 120428009, 120428010, 120428011, 120428012, 120428013, 120428014, 120428015, 120428016, 120428017, 120428018

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS			**QC Sample #72766**							
pH	PH		8.00	unitless	100	98.75 - 101.25				04/05/12
DUP			**QC Sample #72767**							
			Original 120428001							
pH	PH	8.95	9.03	unitless			0.90	30		04/05/12
LCS			**QC Sample #72768**							
pH	PH		8.02	unitless	100.2	98.75 - 101.25				04/05/12
LCS			**QC Sample #72769**							
pH	PH		8.01	unitless	100.1	98.75 - 101.25				04/05/12

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120428

QC Batch 198662 **Test** Hexavalent chromium
Associated Samples 120428011, 120428012, 120428013, 120428014, 120428015, 120428016, 120428017, 120428018

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #72945**							
Hexavalent chromium	18540-29-9		<0.096	ug/g					U	04/11/12
LCS			**QC Sample #72946**							
Hexavalent chromium	18540-29-9		3.73	ug/g	98.9	80 - 120				04/11/12
DUP			**QC Sample #72947**							
			Original 120428014							
Hexavalent chromium	18540-29-9	<0.10	<0.10	ug/g			1.00	30	U	04/11/12
MS			**QC Sample #72948**							
			Original 120428014							
Hexavalent chromium	18540-29-9	<0.10	3.59	ug/g	90.2	75 - 125				04/11/12
PSTSPK			**QC Sample #72949**							
Hexavalent chromium	18540-29-9		0.0486	ug/g	97.2	85 - 115				04/11/12
IMS			**QC Sample #72950**							
			Original 120428014							
Hexavalent chromium	18540-29-9	<0.10	381	ug/g	82.4	75 - 125				04/11/12

Date: 15 June 2012
To: CH2M Hill (technical representative)
From: Analytical Quality Associates, Inc.
Project: 100-K
Subject: Radiochemical - Sample Data Groups (SDGs) H4718, H4719, WSCF120424 and WSCF120428

INTRODUCTION

This memorandum presents the results of data validation for SDGs H4718 and H4719 prepared by Eberline Services and SDGs WSCF120424 and WSCF120428 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
B2L2M2	03/28/12	Soil	C	H-3 & C-14
B2L2M5	03/28/12	Soil	C	H-3 & C-14
B2L2M8	03/28/12	Soil	C	H-3 & C-14
B2L2N1	03/28/12	Soil	C	H-3 & C-14
B2L2N4	04/01/12	Soil	C	H-3 & C-14
B2L2N7	04/01/12	Soil	C	H-3 & C-14
B2L2P0	04/01/12	Soil	C	H-3 & C-14
B2L2P3	04/01/12	Soil	C	H-3 & C-14
B2L2P6	04/01/12	Soil	C	H-3 & C-14
B2L2T1	04/01/12	Soil	C	H-3 & C-14
B2L2T3	04/01/12	Soil	C	H-3 & C-14
B2L2T5	03/28/12	Soil	C	H-3 & C-14
B2L2T8	04/01/12	Soil	C	H-3 & C-14
B2L2V1	04/01/12	Soil	C	H-3 & C-14
B2L2V4	04/01/12	Soil	C	H-3 & C-14
B2L2V7	04/01/12	Soil	C	H-3 & C-14
B2L2W0	04/01/12	Soil	C	H-3 & C-14
B2L2W3	03/28/12	Soil	C	H-3 & C-14
B2L2W6	03/28/12	Soil	C	H-3 & C-14
B2L2W9	04/01/12	Soil	C	H-3 & C-14
B2L2X2	04/01/12	Soil	C	H-3 & C-14
B2L2X5	04/01/12	Soil	C	H-3 & C-14
B2L2X8	04/01/12	Soil	C	H-3 & C-14
B2L2Y1	04/01/12	Soil	C	H-3 & C-14
B2L2Y4	04/01/12	Soil	C	H-3 & C-14
B2L2Y7	04/01/12	Soil	C	H-3 & C-14
B2L2M3	03/28/12	Soil	C	See note 1
B2L2M6	03/28/12	Soil	C	See note 1
B2L2M9	03/28/12	Soil	C	See note 1
B2L2N2	03/28/12	Soil	C	See note 1

B2L2W4	03/28/12	Soil	C	See note 1
B2L2W7	03/28/12	Soil	C	See note 1
B2L2T2	03/28/12	Soil	C	See note 1
B2L2T6	03/28/12	Soil	C	See note 1
B2L2V8	04/01/12	Soil	C	See note 1
B2L2Y5	04/01/12	Soil	C	See note 1
B2L2N8	04/01/12	Soil	C	See note 1
B2L2W1	04/01/12	Soil	C	See note 1
B2L2P1	04/01/12	Soil	C	See note 1
B2L2Y8	04/01/12	Soil	C	See note 1
B2L2P4	04/01/12	Soil	C	See note 1
B2L2Y2	04/01/12	Soil	C	See note 1
B2L2N5	04/01/12	Soil	C	See note 1
B2L2X3	04/01/12	Soil	C	See note 1
B2L2T4	04/01/12	Soil	C	See note 1
B2L2V2	04/01/12	Soil	C	See note 1
B2L2T9	04/01/12	Soil	C	See note 1
B2L2X6	04/01/12	Soil	C	See note 1
B2L2V5	04/01/12	Soil	C	See note 1
B2L2X0	04/01/12	Soil	C	See note 1
B2L2P7	04/01/12	Soil	C	See note 1
B2L2X9	04/01/12	Soil	C	See note 1

1 – Gamma, Am-241, Isotopic-Pu, Isotopic-U & Sr-89/90

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, (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 maximum holding time for radiochemical analysis is 180 days. There are no specific preservation requirements for radiochemical soil/solid 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 WSCF120424, the Pu-239/240, U-234 and U-238 laboratory blank results were > the minimum detectable concentrations (MDCs). The associated sample results <5X the blank values, should be qualified as estimates and flagged "J." See the table in Appendix 2 for a listing of all affected sample results.

For SDG WSCF120428, the laboratory blank results for U-234 and U-238 associated with batch 198290, for Am-241, U-234 and U-238 associated with batch 198291 and for U-234, U-235 and U-238 associated with batch 198292 were > the MDCs. All associated sample results <5X the blank values should be qualified as estimates and flagged "J." See the table in Appendix 2 for a listing of all affected sample results.
…..
The remaining sample results with associated blank contamination were either non-detects or detects >5X the laboratory blank results and should not be qualified. It should be noted that the presence of naturally occurring radioactive materials in the laboratory blank may signify that a solid matrix material (versus purified water) was used for the blank and that some of the listed detections are not due to contamination. This information could not be determined from documentation supplied in the data package.

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. C-14 was detected in equipment blank (EB) sample B2L2T1. Pu-239/240, U-234 and U-238 were detected in EB sample B2L2T2. The results for these analytes have been flagged "J" due to laboratory blank contamination. Pu-238, U-234 and U-238 were detected in EB sample B2L2T4. The U-234 and U-238 results have been flagged "J" due to laboratory blank contamination.

The possibility of indigenous naturally occurring radioactive materials present in the equipment blank could not be determined from documentation supplied in the data package.

- **Accuracy**

Accuracy is evaluated by reviewing matrix spike sample results, laboratory control sample results, and chemical recovery factors. Chemical recovery factors are determined through use of a carrier or tracer and provide assessment of the chemical separation process that is affected by the laboratory procedure, sample matrix, and/or interference. Chemical recovery factors are used to correct sample concentration, uncertainty, and MDC results. According to the SAP, the laboratory control sample and chemical recovery accuracy limits are 70% to 130%. The limits for reported analytes not listed in the SAP are specified by the DV procedure.

Matrix Spike (MS) Samples

MS analyses are not required for the methods performed.

Laboratory Control Samples (LCSs)

All LCS recoveries were acceptable.

Carrier/Tracer Recovery Factors

All carrier/tracer recovery factors were acceptable with the following exceptions.

For SDG WSCF120424, tracer Sr-85 for samples B2L2M3, B2L2N2, B2L2W4, B2L2W7, B2L2T2 and B2L2T6 were below the lower acceptance limit but ≥5%. The Sr-89/90 results for samples B2L2M3, B2L2W4, B2L2W7, B2L2T2 and B2L2T6 were non-detects and should be qualified as estimates and flagged "UJ." The Sr-89/90 result for sample B2L2N2 was a detect and should be qualified as an estimate and flagged "J." The Pu-242 tracer recovery for sample B2L2T6 was below the lower acceptance limit but ≥5%. The Pu-238 result was non-detect and should be qualified as an estimate and flagged "UJ." The Pu-239/240 result was a detect and should be qualified as an estimate and flagged "J."

For SDG WSCF120428, tracer Pu-242 for samples B2L2W1, B2L2P1, B2L2P4, B2L2N5, B2L2X3 and B2L2X0 were below the lower acceptance limit but ≥ 5%. All Pu-238 and Pu-239/240 non-detects sample results should be qualified as estimates and flagged "UJ" and all detect sample results should be qualified as estimates and flagged "J." The Am-243 tracer recovery for sample B2L2X0 was < the lower acceptance limit but ≥5%. The Am-241 result was a detect and should be qualified as an estimate and should be flagged "J." The Sr-85 tracer recovery for samples B2L2P4, B2L2X3, B2L2X0, B2L2P7 and B2L2X9 were below the lower acceptance limit but ≥5%. All Sr-89/90 non-detect sample results should be qualified as estimates and flagged "UJ" and all detect sample results should be qualified as estimates and flagged "J." See the table in Appendix 2 for a listing of all affected sample results.

- **Precision**

Precision is evaluated by reviewing laboratory duplicate, field duplicate, 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%. When duplicate RPDs exceed the limits and have associated results <5X the SAP required detection limit with a difference <2X the required detection limits no precision infraction occurred.

Laboratory Duplicate Samples

All laboratory duplicate results were acceptable with the following exceptions.

For SDG H4718, the C-14 RPD was above the acceptance limit. C-14 results for associated samples should be qualified as estimates and flagged "UJ" for non-detects and "J" for detects. See the table in Appendix 2 for a listing of all affected sample results.

For SDG WSCF120428, batch 198290, the Am-241 and Pu-239/240 RPDs were above the acceptance limit. All Am-241 and P-239/240 results associated with the samples should be qualified as estimates and flagged "UJ" for non-detects and "J" for detects. See the table in Appendix 2 for a listing of all affected sample results.

Field Duplicate Samples

All field duplicate results were acceptable.

Field Split Samples

No field splits were submitted for validation.

- **Detection Limits**

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

All reported sample MDCs with associated non-detected sample results were below the CRDLs with the following exceptions.

The Eu-152, Eu-154 and Eu-155 for samples B2L2W1, B2L2P1, B2L2Y8, B2L2N5, B2L2V2 and B2L2V5 were > the CRDL.

The Eu-152 and Eu-155 MDCs for samples B2L2Y5, B2L2N8 and B2L2P7 were > the CRDL.

The Eu-154 and Eu-155 for samples B2L2P4 and B2L2X6 were > the CRDL.

The Eu-155 for samples B2L2Y2 and B2L2T9 were > the CRDL.

- **Completeness**

SDGs H4718, H4719, WSCF120424 and WSCF120428 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

Multiple minor deficiencies leading to qualification of sample results as estimates occurred. See the table in Appendix 2 for a listing of all affected sample results.

REFERENCES

GRP-GD-002, Rev. 0, Change 0, *Data Validation for Radiochemical 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 and 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 MDC. 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.

- **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

Radiochemical Data Qualification Summary			
SDGs: H4718, H4719, WSCF120424, WSCF120428	Reviewer: AQA	Project: 100-K	Page 1 of 2
Analyte(s)	**Qualifier**	**Samples Affected**	**Reason**
Pu-239/240	J	B2L2M3, B2L2M6, B2L2W4, B2L2T2,	Laboratory blank contamination
U-234, U-238	J	B2L2M3, B2L2M6, B2L2M9, B2L2N2, B2L2W4, B2L2W7, B2L2T2, B2L2T6, B2L2W1, B2L2Y2, B2L2N5, B2L2X3, B2L2T4, B2L2T9, B2L2X6, B2L2V5, B2L2X0, B2L2P7, B2L2X9	Laboratory blank contamination
U-238	J	B2L2V8, B2L2Y5, B2L2N8, B2L2Y8	Laboratory blank contamination
Am-241	J	B2L2X3, B2L2V2, B2L2T9, B2L2X6	Laboratory blank contamination
U-234	J	B2L2V2	Laboratory blank contamination
U-235	J	B2L2V5, B2L2X0, B2L2X9	Laboratory blank contamination
Pu-238	UJ	B2L2T6, B2L2P1, B2L2P4, B2L2X3, B2L2X0	Low tracer recovery
Pu-239/240	J	B2L2T6	Laboratory blank contamination and low tracer recovery
Pu-238	J	B2L2W1, B2L2N5	Low tracer recovery
Pu-239/240	J	B2L2W1, B2L2P1, B2L2P4	Low tracer recovery and poor duplicate precision
Pu-239/240	J	B2L2X3, B2L2X0, B2L2N5	Low tracer recovery
Am-241	J	B2L2X0	Low tracer recovery
Sr-89/90	J	B2L2N2, B2L2P4, B2L2X9	Low tracer recovery
Sr-89/90	UJ	B2L2M3, B2L2W4, B2L2W7, B2L2T2, B2L2T6, B2L2X3,	Low tracer recovery

		B2L2X0, B2L2P7	
C-14	UJ	B2L2T3	Poor duplicate precision
C-14	J	B2L2M2, B2L2M5, B2L2M8, B2L2N1, B2L2N4, B2L2N7, B2L2P0, B2L2P3, B2L2P6, B2L2T1, B2L2T5, B2L2T8	Poor duplicate precision
Am-241, Pu-239/240	J	B2L2V8, B2L2Y5, B2L2N8, B2L2Y8,	Poor duplicate precision
Am-241	J	B2L2W1, B2L2P1, B2L2P4	Poor duplicate precision

Comments: None

Appendix 3

Annotated Laboratory Reports

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4718

7701-001 B2L2M2

DATA SHEET

SDG	7701	Client/Case no	CHPRC SDG H4718
Contact	N. Joseph Verville	Contract	No. 33677
Lab sample id	S204028-01	Client sample id	B2L2M2
Dept sample id	7701-001	Location/Matrix	AreaAH In-Process Smpl#1 SOIL
Received	04/06/12	Collected/Weight	03/28/12 11:00 113.7 g
% solids	93.3	Custody/SAF No	F11-092-256 F11-092

ANALYTE	CAS NO		RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8		2.73	2.5	4.03	400	U	H
Carbon 14	14762-75-5	J	1.57	1.2	0.531	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EH
06/15/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4718

7701-002 B2L2M5

DATA SHEET

SDG	7701	Client/Case no	CHPRC SDG_H4718
Contact	N. Joseph Verville	Contract	No. 33677
Lab sample id	S204028-02	Client sample id	B2L2M5
Dept sample id	7701-002	Location/Matrix	AreaAH In-Process Smpl#2 SOIL
Received	04/06/12	Collected/Weight	03/28/12 11:20 114.0 g
% solids	95.1	Custody/SAF No	F11-092-259 F11-092

ANALYTE	CAS NO		RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8		-0.164	2.2	3.72	400	U	H
Carbon 14	14762-75-5	J	2.89	0.45	0.694	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EH
06/15/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4718

7701-003 B2L2M8

DATA SHEET

SDG	7701	Client/Case no	CHPRC	SDG H4718	
Contact	N. Joseph Verville	Contract	No. 33677		
Lab sample id	S204028-03	Client sample id	B2L2M8		
Dept sample id	7701-003	Location/Matrix	AreaAH In-Process Smpl#3	SOIL	
Received	04/06/12	Collected/Weight	03/28/12 13:00	115.1 g	
% solids	93.1	Custody/SAF No	F11-092-262	F11-092	

ANALYTE	CAS NO		RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8		0.633	2.1	3.58	400	U	H
Carbon 14	14762-75-5	J	65.5	0.90	0.679	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EH
06/15/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4718

7701-004 B2L2N1

DATA SHEET

SDG	7701	Client/Case no	CHPRC	SDG H4718
Contact	N. Joseph Verville	Contract	No. 33677	
Lab sample id	S204028-04	Client sample id	B2L2N1	
Dept sample id	7701-004	Location/Matrix	AreaAH In-Process Smpl#4	SOIL
Received	04/06/12	Collected/Weight	03/28/12 13:07	115.1 g
% solids	93.0	Custody/SAF No	F11-092-265	F11-092

ANALYTE	CAS NO		RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8		-0.367	2.1	3.56	400	U	H
Carbon 14	14762-75-5	J	10.7	0.52	0.679	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EH
06/15/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4718

7701-005 B2L2N4

DATA SHEET

SDG	7701	Client/Case no	CHPRC	SDG H4718
Contact	N. Joseph Verville	Contract	No. 33677	
Lab sample id	S204028-05	Client sample id	B2L2N4	
Dept sample id	7701-005	Location/Matrix	AreaAH In-Process Smpl#5	SOIL
Received	04/06/12	Collected/Weight	04/01/12 10:48	121.9 g
% solids	92.0	Custody/SAF No	F11-092-268	F11-092

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-2.24	2.0	3.72	400	U	H
Carbon 14	14762-75-5	J 4.09	0.45	0.668	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EH
06/15/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4718

7701-006 B2L2N7

DATA SHEET

SDG	7701	Client/Case no	CHPRC SDG H4718
Contact	N. Joseph Verville	Contract	No. 33677
Lab sample id	S204028-06	Client sample id	B2L2N7
Dept sample id	7701-006	Location/Matrix	AreaAH In-Process Smpl#6 SOIL
Received	04/06/12	Collected/Weight	04/01/12 12:25 115.6 g
% solids	89.9	Custody/SAF No	F11-092-271 F11-092

ANALYTE	CAS NO		RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8		0.966	2.3	3.86	400	U	H
Carbon 14	14762-75-5	J	4.98	0.47	0.693	1.00		C

Area AH In-Process Sampling - Soil

EH
06/15/12

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4718

7701-007 B2L2P0

DATA SHEET

SDG	7701	Client/Case no	CHPRC SDG H4718
Contact	N. Joseph Verville	Contract	No. 33677
Lab sample id	S204028-07	Client sample id	B2L2P0
Dept sample id	7701-007	Location/Matrix	AreaAH In-Process Smpl#7 SOIL
Received	04/06/12	Collected/Weight	04/01/12 12:37 113.1 g
% solids	89.7	Custody/SAF No	F11-092-274 F11-092

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-0.845	2.2	3.82	400	U	H
Carbon 14	14762-75-5	J 8.54	0.53	0.730	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EH
06/15/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4718

7701-008 B2L2P3

DATA SHEET

SDG	7701	Client/Case no	CHPRC	SDG_H4718
Contact	N. Joseph Verville	Contract	No. 33677	
Lab sample id	S204028-08	Client sample id	B2L2P3	
Dept sample id	7701-008	Location/Matrix	AreaAH In-Process Smpl#8	SOIL
Received	04/06/12	Collected/Weight	04/01/12 12:48	116.6 g
% solids	92.4	Custody/SAF No	F11-092-277	F11-092

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-1.24	2.2	3.83	400	U	H
Carbon 14	14762-75-5	J 7.69	0.50	0.675	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EH
06/15/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4718

7701-009 B2L2P6

DATA SHEET

SDG	7701	Client/Case no	CHPRC SDG H4718
Contact	N. Joseph Verville	Contract	No. 33677
Lab sample id	S204028-09	Client sample id	B2L2P6
Dept sample id	7701-009	Location/Matrix	AreaAH In-Process Smpl#9 SOIL
Received	04/06/12	Collected/Weight	04/01/12 12:58 119.2 g
% solids	99.7	Custody/SAF No	F11-092-280 F11-092

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	5.31	2.2	3.31	400		H
Carbon 14	14762-75-5	J 139	2.9	1.55	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EH
06/15/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4718

7701-010 B2L2T1

DATA SHEET

SDG	7701	Client/Case no	CHPRC	SDG H4718	
Contact	N. Joseph Verville	Contract	No. 33677		
Lab sample id	S204028-10	Client sample id	B2L2T1		
Dept sample id	7701-010	Location/Matrix	AreaAH In-ProcessSmpl#14	SOIL	
Received	04/06/12	Collected/Weight	03/28/12 10:50	113.1 g	
% solids	98.8	Custody/SAF No	F11-092-295	F11-092	

ANALYTE	CAS NO		RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8		-0.984	2.0	3.52	400	U	H
Carbon 14	14762-75-5	J	0.692	0.40	0.645	1.00		C

Area AH In-Process Sampling - Soil

EH
06/15/12

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4718

7701-011 B2L2T3

DATA SHEET

SDG	7701	Client/Case no	CHPRC SDG_H4718
Contact	N. Joseph Verville	Contract	No. 33677
Lab sample id	S204028-11	Client sample id	B2L2T3
Dept sample id	7701-011	Location/Matrix	AreaAH In-ProcessSmpl#15 SOIL
Received	04/06/12	Collected/Weight	04/01/12 07:40 116.4 g
% solids	99.8	Custody/SAF No	F11-092-297 F11-092

ANALYTE	CAS NO		RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8		-1.76	1.8	3.22	400	U	H
Carbon 14	14762-75-5	UJ	0.226	0.44	0.725	1.00	U	C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EH
06/15/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4718

7701-012 B2L2T5

DATA SHEET

SDG	7701	Client/Case no	CHPRC	SDG H4718
Contact	N. Joseph Verville	Contract	No. 33677	
Lab sample id	S204028-12	Client sample id	B2L2T5	
Dept sample id	7701-012	Location/Matrix	AreaAH In-ProcessSmpl#16	SOIL
Received	04/06/12	Collected/Weight	03/28/12 13:30	117.3 g
% solids	93.6	Custody/SAF No	F11-092-299	F11-092

ANALYTE	CAS NO		RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8		-0.830	2.0	3.52	400	U	H
Carbon 14	14762-75-5	J	3.55	0.43	0.637	1.00		C

Area AH In-Process Sampling - Soil

EH
06/15/12

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4718

7701-013 B2L2T8

DATA SHEET

SDG	7701	Client/Case no	CHPRC SDG H4718
Contact	N. Joseph Verville	Contract	No. 33677
Lab sample id	S204028-13	Client sample id	B2L2T8
Dept sample id	7701-013	Location/Matrix	AreaAH In-ProcessSmpl#17 SOIL
Received	04/06/12	Collected/Weight	04/01/12 09:21 117.3 g
% solids	94.7	Custody/SAF No	F11-092-302 F11-092

ANALYTE	CAS NO		RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8		-0.747	2.2	3.90	400	U	H
Carbon 14	14762-75-5	J	9.39	0.52	0.690	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EH
06/15/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4719

7702-001 B2L2V1

DATA SHEET

SDG	7702	Client/Case no	CHPRC	SDG H4719
Contact	N. Joseph Verville	Contract	No. 33677	
Lab sample id	S204029-01	Client sample id	B2L2V1	
Dept sample id	7702-001	Location/Matrix	Area AH 100-K-6	SOIL
Received	04/06/12	Collected/Weight	04/01/12 10:23	116.5 g
% solids	92.0	Custody/SAF No	F11-092-305	F11-092

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-2.82	2.1	3.80	400	U	H
Carbon 14	14762-75-5	34.8	0.75	0.745	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4719

7702-002 B2L2V4

DATA SHEET

SDG	7702	Client/Case no	CHPRC	SDG H4719
Contact	N. Joseph Verville	Contract	No. 33677	
Lab sample id	S204029-02	Client sample id	B2L2V4	
Dept sample id	7702-002	Location/Matrix	Area AH 132-KE-1	SOIL
Received	04/06/12	Collected/Weight	04/01/12 10:13	119.8 g
% solids	92.7	Custody/SAF No	F11-092-308	F11-092

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-0.978	2.0	3.59	400	U	H
Carbon 14	14762-75-5	14.5	0.56	0.694	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4719

7702-003 B2L2V7

DATA SHEET

SDG	7702	Client/Case no	CHPRC	SDG_H4719
Contact	N. Joseph Verville	Contract	No. 33677	
Lab sample id	S204029-03	Client sample id	B2L2V7	
Dept sample id	7702-003	Location/Matrix	Area AH 100-K-46	SOIL
Received	04/06/12	Collected/Weight	04/01/12 09:06	107.6 g
% solids	87.9	Custody/SAF No	F11-092-311	F11-092

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-0.974	2.1	3.79	400	U	H
Carbon 14	14762-75-5	7.57	0.51	0.714	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4719

7702-004 B2L2W0

DATA SHEET

SDG	7702	Client/Case no	CHPRC	SDG H4719
Contact	N. Joseph Verville	Contract	No. 33677	
Lab sample id	S204029-04	Client sample id	B2L2W0	
Dept sample id	7702-004	Location/Matrix	Area AH 119-KE	SOIL
Received	04/06/12	Collected/Weight	04/01/12 08:55	115.0 g
% solids	90.4	Custody/SAF No	F11-092-314	F11-092

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-1.42	2.2	3.90	400	U	H
Carbon 14	14762-75-5	10.1	0.55	0.745	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4719

7702-005 B2L2W3

DATA SHEET

SDG	7702	Client/Case no	CHPRC	SDG H4719
Contact	N. Joseph Verville	Contract	No. 33677	
Lab sample id	S204029-05	Client sample id	B2L2W3	
Dept sample id	7702-005	Location/Matrix	Area AH 100-K-62 Smpl #1	SOIL
Received	04/06/12	Collected/Weight	03/28/12 13:30	120.1 g
% solids	93.8	Custody/SAF No	F11-092-317	F11-092

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-1.48	1.9	3.37	400	U	H
Carbon 14	14762-75-5	0.450	0.45	0.731	1.00	U	C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4719

7702-006 B2L2W6

DATA SHEET

SDG	7702	Client/Case no	CHPRC SDG_H4719
Contact	N. Joseph Verville	Contract	No. 33677
Lab sample id	S204029-06	Client sample id	B2L2W6
Dept sample id	7702-006	Location/Matrix	Area AH 100-K-62 Smpl #2 SOIL
Received	04/06/12	Collected/Weight	03/28/12 13:47 125.0 g
% solids	93.2	Custody/SAF No	F11-092-320 F11-092

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-1.29	2.1	3.71	400	U	H
Carbon 14	14762-75-5	2.70	0.47	0.726	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4719

7702-007 B2L2W9

DATA SHEET

SDG	7702	Client/Case no	CHPRC SDG H4719
Contact	N. Joseph Verville	Contract	No. 33677
Lab sample id	S204029-07	Client sample id	B2L2W9
Dept sample id	7702-007	Location/Matrix	Area AH 100-K-62 Smpl #3 SOIL
Received	04/06/12	Collected/Weight	04/01/12 08:16 118.3 g
% solids	91.6	Custody/SAF No	F11-092-323 F11-092

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-1.76	2.2	4.01	400	U	H
Carbon 14	14762-75-5	1.10	0.46	0.740	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4719

7702-008 B2L2X2

DATA SHEET

SDG	7702	Client/Case no	CHPRC	SDG H4719
Contact	N. Joseph Verville	Contract	No. 33677	
Lab sample id	S204029-08	Client sample id	B2L2X2	
Dept sample id	7702-008	Location/Matrix	Area AH 100-K-62 Smpl #4	SOIL
Received	04/06/12	Collected/Weight	04/01/12 08:27	110.2 g
% solids	90.8	Custody/SAF No	F11-092-326	F11-092

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-0.858	2.1	3.78	400	U	H
Carbon 14	14762-75-5	9.68	0.56	0.760	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4719

7702-009 B2L2X5

DATA SHEET

SDG	7702	Client/Case no	CHPRC	SDG_H4719
Contact	N. Joseph Verville	Contract	No. 33677	
Lab sample id	S204029-09	Client sample id	B2L2X5	
Dept sample id	7702-009	Location/Matrix	Area AH 100-K-62 Smpl #5	SOIL
Received	04/06/12	Collected/Weight	04/01/12 09:21	112.7 g
% solids	95.0	Custody/SAF No	F11-092-329	F11-092

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-1.37	2.1	3.78	400	U	H
Carbon 14	14762-75-5	12.4	0.57	0.745	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4719

7702-010 B2L2X8

DATA SHEET

SDG	7702	Client/Case no	CHPRC	SDG_H4719
Contact	N. Joseph Verville	Contract	No. 33677	
Lab sample id	S204029-10	Client sample id	B2L2X8	
Dept sample id	7702-010	Location/Matrix	Area AH 100-K-62 Smpl #6	SOIL
Received	04/06/12	Collected/Weight	04/01/12 09:34	115.9 g
% solids	95.0	Custody/SAF No	F11-092-332	F11-092

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-2.09	2.7	4.76	400	U	H
Carbon 14	14762-75-5	9.22	0.53	0.715	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4719

7702-011 B2L2Y1

DATA SHEET

SDG	7702	Client/Case no	CHPRC SDG H4719
Contact	N. Joseph Verville	Contract	No. 33677
Lab sample id	S204029-11	Client sample id	B2L2Y1
Dept sample id	7702-011	Location/Matrix	Area AH 100-K-62 Smpl #7 SOIL
Received	04/06/12	Collected/Weight	04/01/12 09:48 120.9 g
% solids	94.8	Custody/SAF No	F11-092-335 F11-092

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-2.02	2.0	3.72	400	U	H
Carbon 14	14762-75-5	20.2	0.62	0.708	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4719

7702-012 B2L2Y4

DATA SHEET

SDG	7702	Client/Case no	CHPRC	SDG_H4719
Contact	N. Joseph Verville	Contract	No. 33677	
Lab sample id	S204029-12	Client sample id	B2L2Y4	
Dept sample id	7702-012	Location/Matrix	Area AH 100-K-53 Smpl #1	SOIL
Received	04/06/12	Collected/Weight	04/01/12 12:16	119.5 g
% solids	92.9	Custody/SAF No	F11-092-338	F11-092

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-0.726	2.1	3.69	400	U	H
Carbon 14	14762-75-5	48.1	1.2	0.987	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4719

7702-013 B2L2Y7

DATA SHEET

SDG	7702	Client/Case no	CHPRC	SDG H4719
Contact	N. Joseph Verville	Contract	No. 33677	
Lab sample id	S204029-13	Client sample id	B2L2Y7	
Dept sample id	7702-013	Location/Matrix	Area AH 100-K-53 Smpl #2	SOIL
Received	04/06/12	Collected/Weight	04/01/12 10:34	118.2 g
% solids	92.6	Custody/SAF No	F11-092-341	F11-092

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-1.52	2.2	3.85	400	U	H
Carbon 14	14762-75-5	24.8	0.71	0.757	1.00		C

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

Sample # 120424001
SAF# F11-092
Sample ID B2L2M3

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep											**03/29/12**
GEA											
Cesium-137	10045-97-3	LA-508-481			0.31	.046	pCi/g	1	0.018		04/02/12
Cobalt-60	10198-40-0	LA-508-481	U		0.010	.0088	pCi/g	1	0.018		04/02/12
Europium-152	14683-23-9	LA-508-481			0.31	.045	pCi/g	1	0.053		04/02/12
Europium-154	15585-10-1	LA-508-481			0.16	.04	pCi/g	1	0.048		04/02/12
Europium-155	14391-16-3	LA-508-481	U		0.061	.05	pCi/g	1	0.094		04/02/12
Np/Th/Pu/Am/U Prep											**04/05/12**
AEA Am-U-Pu											
Americium-241	14596-10-2	LA-508-471			0.028	.02	pCi/g	1	0.028		04/06/12
AEA Pu-Np											
Plutonium-238	13981-16-3	LA-508-471	U		7.3E-3	.015	pCi/g	1	0.028		04/06/12
Plutonium-239/240	PU-239/240	LA-508-471		J	0.024	.015	pCi/g	1	0.017		04/06/12
Uranium Iso											
Uranium-234	U-233/234	LA-508-471		J	0.15	.047	pCi/g	1	0.012		04/06/12
Uranium-235	15117-96-1	LA-508-471	U		4.1E-3	.0056	pCi/g	1	5.6E-3		04/06/12
Uranium-238	U-238	LA-508-471		J	0.16	.048	pCi/g	1	4.5E-3		04/06/12
SR-89/90											**04/05/12**
SR-89/90											

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

Sample # 120424001
SAF# F11-092
Sample ID B2L2M3

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89/90	SR-RAD	LA-220-406	U	UJ	0.29	.46	pCi/g	1	0.64		04/09/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

Sample # 120424002
SAF# F11-092
Sample ID B2L2M6

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep											**03/29/12**
GEA											
Cesium-137	10045-97-3	LA-508-481			0.33	.052	pCi/g	1	0.020		04/02/12
Cobalt-60	10198-40-0	LA-508-481	U		5.9E-3	.011	pCi/g	1	0.021		04/02/12
Europium-152	14683-23-9	LA-508-481	U		0.036	.033	pCi/g	1	0.063		04/02/12
Europium-154	15585-10-1	LA-508-481	U		-0.016	.037	pCi/g	1	0.065		04/02/12
Europium-155	14391-16-3	LA-508-481	U		0.031	.046	pCi/g	1	0.087		04/02/12
Np/Th/Pu/Am/U Prep											**04/05/12**
AEA Am-U-Pu											
Americium-241	14596-10-2	LA-508-471			0.047	.022	pCi/g	1	0.019		04/06/12
AEA Pu-Np											
Plutonium-238	13981-16-3	LA-508-471	U		0.0020	.012	pCi/g	1	0.026		04/06/12
Plutonium-239/240	PU-239/240	LA-508-471		J	0.028	.016	pCi/g	1	0.015		04/06/12
Uranium Iso											
Uranium-234	U-233/234	LA-508-471		J	0.16	.049	pCi/g	1	4.1E-3		04/06/12
Uranium-235	15117-96-1	LA-508-471			5.7E-3	.0063	pCi/g	1	5.1E-3		04/06/12
Uranium-238	U-238	LA-508-471		J	0.14	.043	pCi/g	1	0.011		04/06/12
SR-89/90											**04/05/12**
SR-89/90											

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

Sample # 120424002
SAF# F11-092
Sample ID B2L2M6

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89/90	SR-RAD	LA-220-406	U	0.11	.37	pCi/g	1	0.55		04/09/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

Sample # 120424003
SAF# F11-092
Sample ID B2L2M9

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep											**03/29/12**
GEA											
Cesium-137	10045-97-3	LA-508-481			0.96	.12	pCi/g	1	0.014		04/02/12
Cobalt-60	10198-40-0	LA-508-481	U		5.2E-3	.0071	pCi/g	1	0.014		04/02/12
Europium-152	14683-23-9	LA-508-481			0.065	.031	pCi/g	1	0.047		04/02/12
Europium-154	15585-10-1	LA-508-481	U		0.022	.024	pCi/g	1	0.047		04/02/12
Europium-155	14391-16-3	LA-508-481	U		0.034	.036	pCi/g	1	0.065		04/02/12
Np/Th/Pu/Am/U Prep											**04/05/12**
AEA Am-U-Pu											
Americium-241	14596-10-2	LA-508-471			0.085	.032	pCi/g	1	0.023		04/06/12
AEA Pu-Np											
Plutonium-238	13981-16-3	LA-508-471	U		0.012	.02	pCi/g	1	0.036		04/06/12
Plutonium-239/240	PU-239/240	LA-508-471			0.077	.03	pCi/g	1	0.015		04/06/12
Uranium Iso											
Uranium-234	U-233/234	LA-508-471		J	0.16	.049	pCi/g	1	4.2E-3		04/06/12
Uranium-235	15117-96-1	LA-508-471	U		3.9E-3	.0052	pCi/g	1	5.2E-3		04/06/12
Uranium-238	U-238	LA-508-471		J	0.16	.048	pCi/g	1	4.2E-3		04/06/12
SR-89/90											**04/05/12**
SR-89/90											

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

Sample # 120424003
SAF# F11-092
Sample ID B2L2M9

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89/90	SR-RAD	LA-220-406	U	-0.075	.34	pCi/g	1	0.44		04/09/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

Sample # 120424004
SAF# F11-092
Sample ID B2L2N2

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep										**03/29/12**
GEA										
Cesium-137	10045-97-3	LA-508-481		2.6	.31	pCi/g	1	0.019		04/02/12
Cobalt-60	10198-40-0	LA-508-481	U	1.8E-3	.01	pCi/g	1	0.019		04/02/12
Europium-152	14683-23-9	LA-508-481	U	-0.015	.039	pCi/g	1	0.062		04/02/12
Europium-154	15585-10-1	LA-508-481	U	-0.016	.03	pCi/g	1	0.053		04/02/12
Europium-155	14391-16-3	LA-508-481	U	8.5E-3	.044	pCi/g	1	0.079		04/02/12
Np/Th/Pu/Am/U Prep										**04/05/12**
AEA Am-U-Pu										
Americium-241	14596-10-2	LA-508-471		0.32	.09	pCi/g	1	0.016		04/06/12
AEA Pu-Np										
Plutonium-238	13981-16-3	LA-508-471		0.030	.021	pCi/g	1	0.028		04/06/12
Plutonium-239/240	PU-239/240	LA-508-471		0.24	.074	pCi/g	1	0.020		04/06/12
Uranium Iso										
Uranium-234	U-233/234	LA-508-471	J	0.11	.036	pCi/g	1	4.3E-3		04/06/12
Uranium-235	15117-96-1	LA-508-471		0.012	.0097	pCi/g	1	5.4E-3		04/06/12
Uranium-238	U-238	LA-508-471	J	0.15	.046	pCi/g	1	4.3E-3		04/06/12
SR-89/90										**04/05/12**
SR-89/90										

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

Sample # 120424004
SAF# F11-092
Sample ID B2L2N2

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89/90	SR-RAD	LA-220-406	J	0.79	.46	pCi/g	1	0.63		04/09/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

Sample # 120424005
SAF# F11-092
Sample ID B2L2W4

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep											**03/29/12**
GEA											
Cesium-137	10045-97-3	LA-508-481			0.31	.043	pCi/g	1	0.012		04/02/12
Cobalt-60	10198-40-0	LA-508-481	U		-8.9E-4	.0064	pCi/g	1	0.012		04/02/12
Europium-152	14683-23-9	LA-508-481	U		0.016	.024	pCi/g	1	0.041		04/02/12
Europium-154	15585-10-1	LA-508-481	U		1.8E-3	.023	pCi/g	1	0.039		04/02/12
Europium-155	14391-16-3	LA-508-481	U		0.027	.032	pCi/g	1	0.058		04/02/12
Np/Th/Pu/Am/U Prep											**04/05/12**
AEA Am-U-Pu											
Americium-241	14596-10-2	LA-508-471			0.053	.026	pCi/g	1	0.028		04/06/12
AEA Pu-Np											
Plutonium-238	13981-16-3	LA-508-471	U		0.017	.015	pCi/g	1	0.023		04/06/12
Plutonium-239/240	PU-239/240	LA-508-471		J	0.040	.021	pCi/g	1	0.020		04/06/12
Uranium Iso											
Uranium-234	U-233/234	LA-508-471		J	0.14	.044	pCi/g	1	0.012		04/06/12
Uranium-235	15117-96-1	LA-508-471			0.012	.0097	pCi/g	1	5.4E-3		04/06/12
Uranium-238	U-238	LA-508-471		J	0.12	.039	pCi/g	1	4.4E-3		04/06/12
SR-89/90											**04/05/12**
SR-89/90											

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

Sample # 120424005
SAF# F11-092
Sample ID B2L2W4

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89/90	SR-RAD	LA-220-406	U	UJ	0.30	.48	pCi/g	1	0.71		04/09/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

Sample # 120424006
SAF# F11-092
Sample ID B2L2W7

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep										**03/29/12**
GEA										
Cesium-137	10045-97-3	LA-508-481		0.61	.085	pCi/g	1	0.024		04/02/12
Cobalt-60	10198-40-0	LA-508-481	U	2.9E-3	.011	pCi/g	1	0.021		04/02/12
Europium-152	14683-23-9	LA-508-481	U	3.1E-3	.037	pCi/g	1	0.067		04/02/12
Europium-154	15585-10-1	LA-508-481	U	-0.015	.037	pCi/g	1	0.067		04/02/12
Europium-155	14391-16-3	LA-508-481	U	0.062	.052	pCi/g	1	0.094		04/02/12
Np/Th/Pu/Am/U Prep										**04/05/12**
AEA Am-U-Pu										
Americium-241	14596-10-2	LA-508-471		0.18	.055	pCi/g	1	0.017		04/06/12
AEA Pu-Np										
Plutonium-238	13981-16-3	LA-508-471	U	0.015	.016	pCi/g	1	0.025		04/06/12
Plutonium-239/240	PU-239/240	LA-508-471		0.12	.042	pCi/g	1	0.016		04/06/12
Uranium Iso										
Uranium-234	U-233/234	LA-508-471	J	0.14	.045	pCi/g	1	0.012		04/06/12
Uranium-235	15117-96-1	LA-508-471		0.021	.013	pCi/g	1	5.3E-3		04/06/12
Uranium-238	U-238	LA-508-471	J	0.16	.05	pCi/g	1	4.2E-3		04/06/12
SR-89/90										**04/05/12**
SR-89/90										

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

Sample # 120424006
SAF# F11-092
Sample ID B2L2W7

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89/90	SR-RAD	LA-220-406	U	UJ	0.095	.42	pCi/g	1	0.59		04/09/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

Sample # 120424007
SAF# F11-092
Sample ID B2L2T2

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep											**03/29/12**
GEA											
Cesium-137	10045-97-3	LA-508-481	U		2.9E-4	.0058	pCi/g	1	9.9E-3		04/02/12
Cobalt-60	10198-40-0	LA-508-481	U		-1.7E-3	.0056	pCi/g	1	9.9E-3		04/02/12
Europium-152	14683-23-9	LA-508-481	U		5.2E-3	.02	pCi/g	1	0.032		04/02/12
Europium-154	15585-10-1	LA-508-481	U		1.5E-3	.018	pCi/g	1	0.032		04/02/12
Europium-155	14391-16-3	LA-508-481	U		0.0040	.028	pCi/g	1	0.049		04/02/12
Np/Th/Pu/Am/U Prep											**04/05/12**
AEA Am-U-Pu											
Americium-241	14596-10-2	LA-508-471	U		6.5E-3	.0093	pCi/g	1	0.015		04/06/12
AEA Pu-Np											
Plutonium-238	13981-16-3	LA-508-471	U		3.7E-3	.012	pCi/g	1	0.022		04/06/12
Plutonium-239/240	PU-239/240	LA-508-471		J	0.026	.016	pCi/g	1	0.014		04/06/12
Uranium Iso											
Uranium-234	U-233/234	LA-508-471		J	0.055	.024	pCi/g	1	4.4E-3		04/06/12
Uranium-235	15117-96-1	LA-508-471	U		0.0020	.004	pCi/g	1	5.4E-3		04/06/12
Uranium-238	U-238	LA-508-471		J	0.036	.018	pCi/g	1	4.4E-3		04/06/12
SR-89/90											**04/05/12**
SR-89/90											

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

Sample # 120424007
SAF# F11-092
Sample ID B2L2T2

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89/90	SR-RAD	LA-220-406	U	UJ	0.024	.38	pCi/g	1	0.56		04/09/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

Sample # 120424008
SAF# F11-092
Sample ID B2L2T6

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep											**03/29/12**
GEA											
Cesium-137	10045-97-3	LA-508-481			0.40	.054	pCi/g	1	0.012		04/02/12
Cobalt-60	10198-40-0	LA-508-481	U		-2.6E-3	.0067	pCi/g	1	0.012		04/02/12
Europium-152	14683-23-9	LA-508-481	U		0.023	.022	pCi/g	1	0.042		04/02/12
Europium-154	15585-10-1	LA-508-481	U		-3.9E-3	.022	pCi/g	1	0.036		04/02/12
Europium-155	14391-16-3	LA-508-481	U		0.047	.031	pCi/g	1	0.057		04/02/12
Np/Th/Pu/Am/U Prep											**04/05/12**
AEA Am-U-Pu											
Americium-241	14596-10-2	LA-508-471			0.039	.02	pCi/g	1	0.021		04/06/12
AEA Pu-Np											
Plutonium-238	13981-16-3	LA-508-471	U	UJ	5.4E-3	.014	pCi/g	1	0.027		04/06/12
Plutonium-239/240	PU-239/240	LA-508-471		J	0.034	.017	pCi/g	1	4.9E-3		04/06/12
Uranium Iso											
Uranium-234	U-233/234	LA-508-471		J	0.15	.045	pCi/g	1	0.010		04/06/12
Uranium-235	15117-96-1	LA-508-471			8.6E-3	.0075	pCi/g	1	4.7E-3		04/06/12
Uranium-238	U-238	LA-508-471		J	0.16	.048	pCi/g	1	3.8E-3		04/06/12
SR-89/90											**04/05/12**
SR-89/90											

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

Sample # 120424008
SAF# F11-092
Sample ID B2L2T6

Matrix SOIL
Sampled 03/28/12
Received 03/29/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89/90	SR-RAD	LA-220-406	U	UJ	-0.035	.35	pCi/g	1	0.54		04/09/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
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X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428001
SAF# F11-092
Sample ID B2L2V8

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep											**04/02/12**
GEA											
Cesium-137	10045-97-3	LA-508-481			6.2	.76	pCi/g	1	0.030		04/03/12
Cobalt-60	10198-40-0	LA-508-481	U		-1.8E-3	.012	pCi/g	1	0.023		04/03/12
Europium-152	14683-23-9	LA-508-481	U		-2.4E-3	.065	pCi/g	1	0.11		04/03/12
Europium-154	15585-10-1	LA-508-481	U		-0.041	.044	pCi/g	1	0.066		04/03/12
Europium-155	14391-16-3	LA-508-481	U		0.022	.073	pCi/g	1	0.14		04/03/12
Np/Th/Pu/Am/U Prep											**04/06/12**
AEA Am-U-Pu											
Americium-241	14596-10-2	LA-508-471		J	0.43	.11	pCi/g	1	0.017		04/10/12
AEA Pu-Np											
Plutonium-238	13981-16-3	LA-508-471			0.061	.034	pCi/g	1	0.043		04/10/12
Plutonium-239_240	PU-239/240	LA-508-471		J	0.33	.097	pCi/g	1	0.027		04/10/12
Uranium Iso											
Uranium-234	U-233/234	LA-508-471			0.15	.049	pCi/g	1	0.015		04/09/12
Uranium-235	15117-96-1	LA-508-471	U		0.015	.013	pCi/g	1	0.016		04/09/12
Uranium-238	U-238	LA-508-471		J	0.15	.047	pCi/g	1	5.4E-3		04/09/12
SR-89/90											**04/05/12**
SR-89/90											

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428001
SAF# F11-092
Sample ID B2L2V8

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406		0.99	.32	pCi/g	1	0.46		04/12/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428002
SAF# F11-092
Sample ID B2L2Y5

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep											**04/02/12**
GEA											
Cesium-137	10045-97-3	LA-508-481			1.3	.19	pCi/g	1	0.040		04/02/12
Cobalt-60	10198-40-0	LA-508-481	U		-7.8E-3	.021	pCi/g	1	0.040		04/02/12
Europium-152	14683-23-9	LA-508-481	U		-0.036	.11	pCi/g	1	0.15		04/02/12
Europium-154	15585-10-1	LA-508-481	U		-0.019	.069	pCi/g	1	0.13		04/02/12
Europium-155	14391-16-3	LA-508-481	U		0.021	.11	pCi/g	1	0.19		04/02/12
Np/Th/Pu/Am/U Prep											**04/06/12**
AEA Am-U-Pu											
Americium-241	14596-10-2	LA-508-471		J	0.21	.061	pCi/g	1	0.017		04/10/12
AEA Pu-Np											
Plutonium-238	13981-16-3	LA-508-471			0.030	.02	pCi/g	1	0.026		04/10/12
Plutonium-239_240	PU-239/240	LA-508-471		J	0.22	.065	pCi/g	1	0.015		04/10/12
Uranium Iso											
Uranium-234	U-233/234	LA-508-471			0.15	.048	pCi/g	1	5.2E-3		04/09/12
Uranium-235	15117-96-1	LA-508-471	U		0.015	.013	pCi/g	1	0.019		04/09/12
Uranium-238	U-238	LA-508-471		J	0.15	.048	pCi/g	1	5.2E-3		04/09/12
SR-89/90											**04/05/12**
SR-89/90											

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428002
SAF# F11-092
Sample ID B2L2Y5

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406		1.2	.3	pCi/g	1	0.43		04/12/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428003
SAF# F11-092
Sample ID B2L2N8

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep											**04/02/12**
GEA											
Cesium-137	10045-97-3	LA-508-481			2.8	.34	pCi/g	1	0.046		04/02/12
Cobalt-60	10198-40-0	LA-508-481	U		2.2E-3	.016	pCi/g	1	0.036		04/02/12
Europium-152	14683-23-9	LA-508-481	U		0.028	.08	pCi/g	1	0.15		04/02/12
Europium-154	15585-10-1	LA-508-481	U		-0.040	.054	pCi/g	1	0.10		04/02/12
Europium-155	14391-16-3	LA-508-481	U		0.014	.12	pCi/g	1	0.24		04/02/12
Np/Th/Pu/Am/U Prep											**04/06/12**
AEA Am-U-Pu											
Americium-241	14596-10-2	LA-508-471		J	0.24	.068	pCi/g	1	0.021		04/10/12
AEA Pu-Np											
Plutonium-238	13981-16-3	LA-508-471			0.055	.033	pCi/g	1	0.046		04/10/12
Plutonium-239_240	PU-239/240	LA-508-471		J	0.21	.064	pCi/g	1	0.019		04/10/12
Uranium Iso											
Uranium-234	U-233/234	LA-508-471			0.17	.054	pCi/g	1	0.035		04/09/12
Uranium-235	15117-96-1	LA-508-471	U		0.015	.013	pCi/g	1	0.018		04/09/12
Uranium-238	U-238	LA-508-471		J	0.14	.047	pCi/g	1	0.027		04/09/12
SR-89/90											**04/05/12**
SR-89/90											

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428003
SAF# F11-092
Sample ID B2L2N8

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406		0.67	.27	pCi/g	1	0.39		04/12/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428004
SAF# F11-092
Sample ID B2L2W1

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep										**04/02/12**
GEA										
Cesium-137	10045-97-3	LA-508-481		1.5	.2	pCi/g	1	0.048		04/02/12
Cobalt-60	10198-40-0	LA-508-481	U	0.017	.021	pCi/g	1	0.047		04/02/12
Europium-152	14683-23-9	LA-508-481	U	-0.0030	.089	pCi/g	1	0.15		04/02/12
Europium-154	15585-10-1	LA-508-481	U	0.014	.074	pCi/g	1	0.15		04/02/12
Europium-155	14391-16-3	LA-508-481	U	-0.014	.11	pCi/g	1	0.20		04/02/12
Np/Th/Pu/Am/U Prep										**04/06/12**
AEA Am-U-Pu										
Americium-241	14596-10-2	LA-508-471	J	0.28	.077	pCi/g	1	0.022		04/10/12
AEA Pu-Np										
Plutonium-238	13981-16-3	LA-508-471	J	0.050	.036	pCi/g	1	0.050		04/10/12
Plutonium-239_240	PU-239/240	LA-508-471	J	0.24	.081	pCi/g	1	0.036		04/10/12
Uranium Iso										
Uranium-234	U-233/234	LA-508-471	J	0.12	.041	pCi/g	1	0.018		04/09/12
Uranium-235	15117-96-1	LA-508-471		0.015	.011	pCi/g	1	5.8E-3		04/09/12
Uranium-238	U-238	LA-508-471	J	0.15	.048	pCi/g	1	0.014		04/09/12
SR-89/90										**04/05/12**
SR-89/90										

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428004
SAF# F11-092
Sample ID B2L2W1

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406		0.86	.27	pCi/g	1	0.38		04/12/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428005
SAF# F11-092
Sample ID B2L2P1

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep											**04/02/12**
GEA											
Cesium-137	10045-97-3	LA-508-481			3.7	.42	pCi/g	1	0.050		04/02/12
Cobalt-60	10198-40-0	LA-508-481	U		-0.015	.018	pCi/g	1	0.035		04/02/12
Europium-152	14683-23-9	LA-508-481	U		0.025	.09	pCi/g	1	0.18		04/02/12
Europium-154	15585-10-1	LA-508-481	U		1.5E-4	.073	pCi/g	1	0.16		04/02/12
Europium-155	14391-16-3	LA-508-481	U		-0.034	.12	pCi/g	1	0.24		04/02/12
Np/Th/Pu/Am/U Prep											**04/06/12**
AEA Am-U-Pu											
Americium-241	14596-10-2	LA-508-471		J	0.13	.041	pCi/g	1	0.020		04/10/12
AEA Pu-Np											
Plutonium-238	13981-16-3	LA-508-471	U	UJ	0.014	.018	pCi/g	1	0.034		04/10/12
Plutonium-239_240	PU-239/240	LA-508-471		J	0.17	.055	pCi/g	1	0.026		04/10/12
Uranium Iso											
Uranium-234	U-233/234	LA-508-471			0.18	.055	pCi/g	1	0.021		04/09/12
Uranium-235	15117-96-1	LA-508-471			0.020	.013	pCi/g	1	6.6E-3		04/09/12
Uranium-238	U-238	LA-508-471			0.18	.054	pCi/g	1	0.024		04/09/12
SR-89/90											**04/05/12**
SR-89/90											

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428005
SAF# F11-092
Sample ID B2L2P1

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406		1.0	.33	pCi/g	1	0.50		04/12/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428006
SAF# F11-092
Sample ID B2L2Y8

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep											**04/02/12**
GEA											
Cesium-137	10045-97-3	LA-508-481			0.98	.15	pCi/g	1	0.049		04/03/12
Cobalt-60	10198-40-0	LA-508-481	U		-4.4E-3	.027	pCi/g	1	0.053		04/03/12
Europium-152	14683-23-9	LA-508-481	U		0.040	.087	pCi/g	1	0.16		04/03/12
Europium-154	15585-10-1	LA-508-481	U		0.022	.071	pCi/g	1	0.15		04/03/12
Europium-155	14391-16-3	LA-508-481	U		-0.079	.11	pCi/g	1	0.18		04/03/12
Np/Th/Pu/Am/U Prep											**04/06/12**
AEA Am-U-Pu											
Americium-241	14596-10-2	LA-508-471		J	0.072	.03	pCi/g	1	0.027		04/10/12
AEA Pu-Np											
Plutonium-238	13981-16-3	LA-508-471	U		0.014	.018	pCi/g	1	0.031		04/10/12
Plutonium-239_240	PU-239/240	LA-508-471		J	0.098	.037	pCi/g	1	0.018		04/10/12
Uranium Iso											
Uranium-234	U-233/234	LA-508-471			0.16	.053	pCi/g	1	0.021		04/09/12
Uranium-235	15117-96-1	LA-508-471			0.020	.014	pCi/g	1	6.6E-3		04/09/12
Uranium-238	U-238	LA-508-471		J	0.15	.048	pCi/g	1	6.1E-3		04/09/12
SR-89/90											**04/05/12**
SR-89/90											

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428006
SAF# F11-092
Sample ID B2L2Y8

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406		0.83	.32	pCi/g	1	0.44		04/12/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428007
SAF# F11-092
Sample ID B2L2P4

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep											**04/02/12**
GEA											
Cesium-137	10045-97-3	LA-508-481			0.40	.081	pCi/g	1	0.052		04/03/12
Cobalt-60	10198-40-0	LA-508-481	U		-7.8E-4	.02	pCi/g	1	0.041		04/03/12
Europium-152	14683-23-9	LA-508-481	U		0.066	.064	pCi/g	1	0.13		04/03/12
Europium-154	15585-10-1	LA-508-481	U		0.033	.079	pCi/g	1	0.16		04/03/12
Europium-155	14391-16-3	LA-508-481	U		-6.5E-3	.084	pCi/g	1	0.16		04/03/12
Np/Th/Pu/Am/U Prep											**04/06/12**
AEA Am-U-Pu											
Americium-241	14596-10-2	LA-508-471		J	0.059	.025	pCi/g	1	0.018		04/10/12
AEA Pu-Np											
Plutonium-238	13981-16-3	LA-508-471	U	UJ	0.015	.02	pCi/g	1	0.036		04/10/12
Plutonium-239_240	PU-239/240	LA-508-471		J	0.045	.025	pCi/g	1	0.022		04/10/12
Uranium Iso											
Uranium-234	U-233/234	LA-508-471			0.15	.049	pCi/g	1	0.031		04/09/12
Uranium-235	15117-96-1	LA-508-471			0.022	.015	pCi/g	1	0.016		04/09/12
Uranium-238	U-238	LA-508-471			0.19	.057	pCi/g	1	5.5E-3		04/09/12
SR-89/90											**04/05/12**
SR-89/90											

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428007
SAF# F11-092
Sample ID B2L2P4

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	J	0.71	.28	pCi/g	1	0.46		04/12/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428008
SAF# F11-092
Sample ID B2L2Y2

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep										**04/02/12**
GEA										
Cesium-137	10045-97-3	LA-508-481		0.79	.12	pCi/g	1	0.031		04/03/12
Cobalt-60	10198-40-0	LA-508-481	U	0.011	.017	pCi/g	1	0.038		04/03/12
Europium-152	14683-23-9	LA-508-481	U	0.030	.065	pCi/g	1	0.11		04/03/12
Europium-154	15585-10-1	LA-508-481	U	-0.018	.043	pCi/g	1	0.082		04/03/12
Europium-155	14391-16-3	LA-508-481	U	-0.020	.089	pCi/g	1	0.17		04/03/12
Np/Th/Pu/Am/U Prep										**04/06/12**
AEA Am-U-Pu										
Americium-241	14596-10-2	LA-508-471		0.17	.055	pCi/g	1	0.023		04/11/12
AEA Pu-Np										
Plutonium-238	13981-16-3	LA-508-471		0.036	.024	pCi/g	1	0.033		04/10/12
Plutonium-239_240	PU-239/240	LA-508-471		0.20	.06	pCi/g	1	0.014		04/10/12
Uranium Iso										
Uranium-234	U-233/234	LA-508-471	J	0.070	.03	pCi/g	1	0.021		04/09/12
Uranium-235	15117-96-1	LA-508-471		0.011	.0094	pCi/g	1	5.8E-3		04/09/12
Uranium-238	U-238	LA-508-471	J	0.12	.041	pCi/g	1	0.018		04/09/12
SR-89/90										**04/06/12**
SR-89/90										

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428008
SAF# F11-092
Sample ID B2L2Y2

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406		0.76	.28	pCi/g	1	0.40		04/16/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428009
SAF# F11-092
Sample ID B2L2N5

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep										**04/02/12**
GEA										
Cesium-137	10045-97-3	LA-508-481		23	2.6	pCi/g	1	0.073		04/03/12
Cobalt-60	10198-40-0	LA-508-481	U	0.017	.022	pCi/g	1	0.051		04/03/12
Europium-152	14683-23-9	LA-508-481	U	0.053	.17	pCi/g	1	0.31		04/03/12
Europium-154	15585-10-1	LA-508-481	U	0.048	.067	pCi/g	1	0.15		04/03/12
Europium-155	14391-16-3	LA-508-481	U	0.16	.21	pCi/g	1	0.41		04/03/12
Np/Th/Pu/Am/U Prep										**04/06/12**
AEA Am-U-Pu										
Americium-241	14596-10-2	LA-508-471		2.1	.51	pCi/g	1	0.028		04/11/12
AEA Pu-Np										
Plutonium-238	13981-16-3	LA-508-471	J	0.23	.069	pCi/g	1	0.029		04/10/12
Plutonium-239_240	PU-239/240	LA-508-471	J	2.2	.53	pCi/g	1	0.015		04/10/12
Uranium Iso										
Uranium-234	U-233/234	LA-508-471	J	0.17	.055	pCi/g	1	0.029		04/09/12
Uranium-235	15117-96-1	LA-508-471		0.011	.0096	pCi/g	1	6.1E-3		04/09/12
Uranium-238	U-238	LA-508-471	J	0.15	.048	pCi/g	1	5.6E-3		04/09/12
SR-89/90										**04/06/12**
SR-89/90										

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428009
SAF# F11-092
Sample ID B2L2N5

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406		11	1.4	pCi/g	1	0.44		04/16/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428010
SAF# F11-092
Sample ID B2L2X3

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep											**04/02/12**
GEA											
Cesium-137	10045-97-3	LA-508-481			0.68	.092	pCi/g	1	0.025		04/03/12
Cobalt-60	10198-40-0	LA-508-481	U		-1.2E-4	.01	pCi/g	1	0.020		04/03/12
Europium-152	14683-23-9	LA-508-481	U		-0.023	.038	pCi/g	1	0.064		04/03/12
Europium-154	15585-10-1	LA-508-481	U		0.013	.032	pCi/g	1	0.066		04/03/12
Europium-155	14391-16-3	LA-508-481	U		0.029	.051	pCi/g	1	0.097		04/03/12
Np/Th/Pu/Am/U Prep											**04/06/12**
AEA Am-U-Pu											
Americium-241	14596-10-2	LA-508-471		J	0.086	.031	pCi/g	1	0.017		04/11/12
AEA Pu-Np											
Plutonium-238	13981-16-3	LA-508-471	U	UJ	5.5E-3	.019	pCi/g	1	0.039		04/10/12
Plutonium-239_240	PU-239/240	LA-508-471		J	0.091	.036	pCi/g	1	7.4E-3		04/10/12
Uranium Iso											
Uranium-234	U-233/234	LA-508-471		J	0.13	.042	pCi/g	1	5.2E-3		04/09/12
Uranium-235	15117-96-1	LA-508-471	U		8.3E-3	.011	pCi/g	1	0.019		04/09/12
Uranium-238	U-238	LA-508-471		J	0.14	.043	pCi/g	1	5.2E-3		04/09/12
SR-89/90											**04/06/12**
SR-89/90											

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428010
SAF# F11-092
Sample ID B2L2X3

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	UJ	0.23	.32	pCi/g	1	0.62		04/16/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428011
SAF# F11-092
Sample ID B2L2T4

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep											**04/02/12**
GEA											
Cesium-137	10045-97-3	LA-508-481	U		-5.1E-3	.021	pCi/g	1	0.032		04/03/12
Cobalt-60	10198-40-0	LA-508-481	U		-0.0020	.019	pCi/g	1	0.035		04/03/12
Europium-152	14683-23-9	LA-508-481	U		0.021	.065	pCi/g	1	0.11		04/03/12
Europium-154	15585-10-1	LA-508-481	U		-5.7E-4	.056	pCi/g	1	0.10		04/03/12
Europium-155	14391-16-3	LA-508-481	U		0.049	.078	pCi/g	1	0.14		04/03/12
Np/Th/Pu/Am/U Prep											**04/06/12**
AEA Am-U-Pu											
Americium-241	14596-10-2	LA-508-471	U		0.013	.012	pCi/g	1	0.016		04/11/12
AEA Pu-Np											
Plutonium-238	13981-16-3	LA-508-471			0.014	.011	pCi/g	1	0.013		04/10/12
Plutonium-239_240	PU-239/240	LA-508-471	U		7.2E-3	.0089	pCi/g	1	0.013		04/10/12
Uranium Iso											
Uranium-234	U-233/234	LA-508-471		J	0.027	.016	pCi/g	1	0.013		04/09/12
Uranium-235	15117-96-1	LA-508-471	U		1.9E-3	.0039	pCi/g	1	5.3E-3		04/09/12
Uranium-238	U-238	LA-508-471		J	0.034	.018	pCi/g	1	4.8E-3		04/09/12
SR-89/90											**04/06/12**
SR-89/90											

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428011
SAF# F11-092
Sample ID B2L2T4

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.14	.22	pCi/g	1	0.37		04/16/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428012
SAF# F11-092
Sample ID B2L2V2

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep											**04/02/12**
GEA											
Cesium-137	10045-97-3	LA-508-481			0.51	.1	pCi/g	1	0.048		04/03/12
Cobalt-60	10198-40-0	LA-508-481	U		3.5E-3	.029	pCi/g	1	0.058		04/03/12
Europium-152	14683-23-9	LA-508-481	U		0.012	.093	pCi/g	1	0.16		04/03/12
Europium-154	15585-10-1	LA-508-481	U		-0.022	.089	pCi/g	1	0.17		04/03/12
Europium-155	14391-16-3	LA-508-481	U		0.11	.12	pCi/g	1	0.23		04/03/12
Np/Th/Pu/Am/U Prep											**04/06/12**
AEA Am-U-Pu											
Americium-241	14596-10-2	LA-508-471		J	0.055	.024	pCi/g	1	0.023		04/11/12
AEA Pu-Np											
Plutonium-238	13981-16-3	LA-508-471	U		8.3E-3	.011	pCi/g	1	0.019		04/10/12
Plutonium-239_240	PU-239/240	LA-508-471			0.042	.02	pCi/g	1	5.6E-3		04/10/12
Uranium Iso											
Uranium-234	U-233/234	LA-508-471		J	0.16	.05	pCi/g	1	5.3E-3		04/09/12
Uranium-235	15117-96-1	LA-508-471			0.019	.013	pCi/g	1	5.8E-3		04/09/12
Uranium-238	U-238	LA-508-471			0.20	.06	pCi/g	1	5.3E-3		04/09/12
SR-89/90											**04/06/12**
SR-89/90											

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428012
SAF# F11-092
Sample ID B2L2V2

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.33	.23	pCi/g	1	0.41		04/16/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428013
SAF# F11-092
Sample ID B2L2T9

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep											**04/02/12**
GEA											
Cesium-137	10045-97-3	LA-508-481			0.72	.12	pCi/g	1	0.039		04/03/12
Cobalt-60	10198-40-0	LA-508-481	U		-9.4E-3	.022	pCi/g	1	0.039		04/03/12
Europium-152	14683-23-9	LA-508-481	U		-0.018	.068	pCi/g	1	0.13		04/03/12
Europium-154	15585-10-1	LA-508-481	U		-0.012	.068	pCi/g	1	0.13		04/03/12
Europium-155	14391-16-3	LA-508-481	U		0.015	.095	pCi/g	1	0.17		04/03/12
Np/Th/Pu/Am/U Prep											**04/06/12**
AEA Am-U-Pu											
Americium-241	14596-10-2	LA-508-471		J	0.11	.039	pCi/g	1	0.027		04/11/12
AEA Pu-Np											
Plutonium-238	13981-16-3	LA-508-471	U		0.0070	.014	pCi/g	1	0.026		04/10/12
Plutonium-239_240	PU-239/240	LA-508-471			0.13	.044	pCi/g	1	0.016		04/10/12
Uranium Iso											
Uranium-234	U-233/234	LA-508-471		J	0.11	.038	pCi/g	1	4.9E-3		04/09/12
Uranium-235	15117-96-1	LA-508-471	U		0.0040	.0076	pCi/g	1	0.015		04/09/12
Uranium-238	U-238	LA-508-471		J	0.11	.039	pCi/g	1	0.022		04/09/12
SR-89/90											**04/06/12**
SR-89/90											

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428013
SAF# F11-092
Sample ID B2L2T9

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406		0.48	.27	pCi/g	1	0.42		04/16/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428014
SAF# F11-092
Sample ID B2L2X6

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep											**04/02/12**
GEA											
Cesium-137	10045-97-3	LA-508-481			0.69	.11	pCi/g	1	0.039		04/03/12
Cobalt-60	10198-40-0	LA-508-481	U		4.7E-3	.018	pCi/g	1	0.038		04/03/12
Europium-152	14683-23-9	LA-508-481	U		0.051	.072	pCi/g	1	0.14		04/03/12
Europium-154	15585-10-1	LA-508-481	U		0.040	.072	pCi/g	1	0.15		04/03/12
Europium-155	14391-16-3	LA-508-481	U		-7.6E-3	.095	pCi/g	1	0.17		04/03/12
Np/Th/Pu/Am/U Prep											**04/06/12**
AEA Am-U-Pu											
Americium-241	14596-10-2	LA-508-471		J	0.10	.036	pCi/g	1	0.018		04/11/12
AEA Pu-Np											
Plutonium-238	13981-16-3	LA-508-471	U		0.021	.018	pCi/g	1	0.027		04/11/12
Plutonium-239_240	PU-239/240	LA-508-471			0.11	.038	pCi/g	1	0.014		04/11/12
Uranium Iso											
Uranium-234	U-233/234	LA-508-471		J	0.067	.028	pCi/g	1	0.018		04/09/12
Uranium-235	15117-96-1	LA-508-471			0.013	.01	pCi/g	1	5.7E-3		04/09/12
Uranium-238	U-238	LA-508-471		J	0.11	.037	pCi/g	1	5.2E-3		04/09/12
SR-89/90											**04/06/12**
SR-89/90											

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

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WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428014
SAF# F11-092
Sample ID B2L2X6

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.36	.26	pCi/g	1	0.43		04/16/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428015
SAF# F11-092
Sample ID B2L2V5

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep										**04/02/12**
GEA										
Cesium-137	10045-97-3	LA-508-481		0.42	.078	pCi/g	1	0.048		04/03/12
Cobalt-60	10198-40-0	LA-508-481	U	-6.6E-4	.026	pCi/g	1	0.051		04/03/12
Europium-152	14683-23-9	LA-508-481	U	0.10	.073	pCi/g	1	0.15		04/03/12
Europium-154	15585-10-1	LA-508-481	U	0.061	.085	pCi/g	1	0.18		04/03/12
Europium-155	14391-16-3	LA-508-481	U	0.086	.11	pCi/g	1	0.21		04/03/12
Np/Th/Pu/Am/U Prep										**04/09/12**
AEA Am-U-Pu										
Americium-241	14596-10-2	LA-508-471		0.040	.021	pCi/g	1	0.021		04/11/12
AEA Pu-Np										
Plutonium-238	13981-16-3	LA-508-471	U	6.4E-3	.017	pCi/g	1	0.034		04/11/12
Plutonium-239_240	PU-239/240	LA-508-471		0.041	.021	pCi/g	1	0.020		04/11/12
Uranium Iso										
Uranium-234	U-233/234	LA-508-471	J	0.15	.046	pCi/g	1	0.013		04/10/12
Uranium-235	15117-96-1	LA-508-471	J	0.015	.011	pCi/g	1	5.7E-3		04/10/12
Uranium-238	U-238	LA-508-471	J	0.14	.044	pCi/g	1	4.6E-3		04/10/12
SR-89/90										**04/05/12**
SR-89/90										

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428015
SAF# F11-092
Sample ID B2L2V5

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	-0.030	.27	pCi/g	1	0.45		04/12/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428016
SAF# F11-092
Sample ID B2L2X0

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep											**04/02/12**
GEA											
Cesium-137	10045-97-3	LA-508-481			0.36	.055	pCi/g	1	0.022		04/03/12
Cobalt-60	10198-40-0	LA-508-481	U		-2.4E-3	.0093	pCi/g	1	0.018		04/03/12
Europium-152	14683-23-9	LA-508-481	U		9.0E-4	.04	pCi/g	1	0.076		04/03/12
Europium-154	15585-10-1	LA-508-481	U		0.025	.039	pCi/g	1	0.073		04/03/12
Europium-155	14391-16-3	LA-508-481	U		0.013	.055	pCi/g	1	0.10		04/03/12
Np/Th/Pu/Am/U Prep											**04/09/12**
AEA Am-U-Pu											
Americium-241	14596-10-2	LA-508-471		J	0.045	.025	pCi/g	1	0.027		04/11/12
AEA Pu-Np											
Plutonium-238	13981-16-3	LA-508-471	U	UJ	0.021	.029	pCi/g	1	0.051		04/11/12
Plutonium-239_240	PU-239/240	LA-508-471		J	0.051	.029	pCi/g	1	0.025		04/11/12
Uranium Iso											
Uranium-234	U-233/234	LA-508-471		J	0.13	.04	pCi/g	1	4.2E-3		04/10/12
Uranium-235	15117-96-1	LA-508-471		J	0.017	.011	pCi/g	1	5.1E-3		04/10/12
Uranium-238	U-238	LA-508-471		J	0.15	.044	pCi/g	1	4.1E-3		04/10/12
SR-89/90											**04/05/12**
SR-89/90											

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428016
SAF# F11-092
Sample ID B2L2X0

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	UJ	0.43	.32	pCi/g	1	0.54		04/12/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428017
SAF# F11-092
Sample ID B2L2P7

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep											**04/02/12**
GEA											
Cesium-137	10045-97-3	LA-508-481	U		0.063	.038	pCi/g	1	0.080		04/03/12
Cobalt-60	10198-40-0	LA-508-481	U		6.9E-3	.029	pCi/g	1	0.059		04/03/12
Europium-152	14683-23-9	LA-508-481	U		0.042	.09	pCi/g	1	0.17		04/03/12
Europium-154	15585-10-1	LA-508-481	U		-0.027	.076	pCi/g	1	0.14		04/03/12
Europium-155	14391-16-3	LA-508-481	U		0.057	.12	pCi/g	1	0.22		04/03/12
Np/Th/Pu/Am/U Prep											**04/09/12**
AEA Am-U-Pu											
Americium-241	14596-10-2	LA-508-471			0.034	.019	pCi/g	1	0.018		04/11/12
AEA Pu-Np											
Plutonium-238	13981-16-3	LA-508-471	U		0.010	.021	pCi/g	1	0.039		04/11/12
Plutonium-239_240	PU-239/240	LA-508-471	U		0.012	.011	pCi/g	1	0.015		04/11/12
Uranium Iso											
Uranium-234	U-233/234	LA-508-471		J	0.11	.036	pCi/g	1	0.012		04/10/12
Uranium-235	15117-96-1	LA-508-471	U		0.0020	.0066	pCi/g	1	0.015		04/10/12
Uranium-238	U-238	LA-508-471		J	0.11	.038	pCi/g	1	4.4E-3		04/10/12
SR-89/90											**04/05/12**
SR-89/90											

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
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WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428017
SAF# F11-092
Sample ID B2L2P7

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	UJ	0.20	.29	pCi/g	1	0.50		04/12/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428018
SAF# F11-092
Sample ID B2L2X9

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
GEA Prep										**04/02/12**
GEA										
Cesium-137	10045-97-3	LA-508-481		0.84	.12	pCi/g	1	0.022		04/03/12
Cobalt-60	10198-40-0	LA-508-481	U	4.5E-3	.011	pCi/g	1	0.022		04/03/12
Europium-152	14683-23-9	LA-508-481	U	0.049	.037	pCi/g	1	0.075		04/03/12
Europium-154	15585-10-1	LA-508-481	U	2.7E-3	.033	pCi/g	1	0.057		04/03/12
Europium-155	14391-16-3	LA-508-481	U	-5.2E-3	.049	pCi/g	1	0.087		04/03/12
Np/Th/Pu/Am/U Prep										**04/09/12**
AEA Am-U-Pu										
Americium-241	14596-10-2	LA-508-471		0.15	.052	pCi/g	1	0.033		04/11/12
AEA Pu-Np										
Plutonium-238	13981-16-3	LA-508-471		0.033	.022	pCi/g	1	0.029		04/11/12
Plutonium-239_240	PU-239/240	LA-508-471		0.15	.05	pCi/g	1	0.020		04/11/12
Uranium Iso										
Uranium-234	U-233/234	LA-508-471	J	0.12	.041	pCi/g	1	0.013		04/11/12
Uranium-235	15117-96-1	LA-508-471	J	8.8E-3	.0086	pCi/g	1	5.9E-3		04/11/12
Uranium-238	U-238	LA-508-471	J	0.16	.05	pCi/g	1	0.013		04/11/12
SR-89/90										**04/05/12**
SR-89/90										

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

Sample # 120428018
SAF# F11-092
Sample ID B2L2X9

Matrix SOIL
Sampled 04/01/12
Received 04/02/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	J	0.59	.31	pCi/g	1	0.52		04/12/12

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

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.

EH
06/15/12

Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

1.0 GENERAL

CH2M Hill Plateau Remediation Company (CHPRC) Sample Delivery Group H4718 was composed of thirteen soil samples designated under SAF No. F11-092 with a Project Designation of: Area AH In-Processing Sampling - Soil.

The samples were received as stated on the Chain-of-Custody document. Any discrepancies are noted on the Eberline Analytical Sample Receipt Checklist.

2.0 ANALYSIS NOTES

2.1 Tritium Analysis

No problems were encountered during the course of the analyses. The results for both the original and duplicate analyses were less than their respective MDAs therefore no RPD or statistical control limit is calculated.

2.2 Carbon-14 Analysis, Low Level

The relative percent difference in the original and duplicate results was 114% and the DER was 4.8. The large difference in the results is attributed to inhomogeneity of activity in the sample matrix. No other problems were encountered during the course of the analyses.

3.0 Case Narrative Certification Statement

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

Joseph Verville
Client Services Manager

4/13/12
Date

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-256	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4718	TELEPHONE NO. 373-5869 7701	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #1	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 7 days / 7 days
ICE CHEST NO. 27 GWS-110	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL AH 3/28/1
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2M4

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2M2	SOIL	MAR 28 2012	1100	✓

CF/L-12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME MAR 28 2012 1500	RECEIVED BY/STORED IN SSU-1	DATE/TIME MAR 28 2012 1500
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR JAN 4 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR JAN 4 2012 0700
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME APR JAN 4 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME JAN 4 2012
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN Alex Kelenson KELENSON	DATE/TIME 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
West Side Sample #1** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-259	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4718	TELEPHONE NO. 373-5869 7701	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #2	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 7days 014 3/28/12
ICE CHEST NO. GWS-110	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2M7

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2M5	SOIL	MAR 28 2012	1120	✓

TF AL- 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME MAR 28 2012 1500	RECEIVED BY/STORED IN SSU-1	DATE/TIME MAR 28 2012 1500
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JAN 4 2012 0700	RECEIVED BY/STORED IN RC Patterson CHPRC	DATE/TIME JAN 4 2012 0700
RELINQUISHED BY/REMOVED FROM RC Patterson CHPRC	DATE/TIME JAN 4 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN Alex Kelenson KELENSON 4/6/12 10:00	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
West Side Sample #2** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-262	PAGE 1 OF 1
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ H4718	TELEPHONE NO.: 373-5869 7701	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND
SAMPLING LOCATION: Area AH In-Process Sample #3	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 7 days 3/28/12
ICE CHEST NO.: GWS-110	FIELD LOGBOOK NO.: HNF-N-507-24-	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	METHOD OF SHIPMENT: FEDERAL EXPRESS	ORIGINAL
SHIPPED TO: Eberline Services	OFFSITE PROPERTY NO.: SEE PTR 3655		BILL OF LADING/AIR BILL NO.: SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2N0

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2M8	SOIL	MAR 28 2012	1300	✓

TFVL-12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: MAR 28 2012 1500	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: MAR 28 2012 1500
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: JAN 04 2012 0700 APR	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: JAN 04 2012 0700 APR
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: JAN 04 2012 1500 APR	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FED EX	DATE/TIME:	RECEIVED BY/STORED IN: Alex Kelenson KELENSON	DATE/TIME: 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM:	DATE/TIME:	RECEIVED BY/STORED IN:	DATE/TIME:
RELINQUISHED BY/REMOVED FROM:	DATE/TIME:	RECEIVED BY/STORED IN:	DATE/TIME:
RELINQUISHED BY/REMOVED FROM:	DATE/TIME:	RECEIVED BY/STORED IN:	DATE/TIME:

SPECIAL INSTRUCTIONS
West Side Sample #3 ** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-265	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4718	TELEPHONE NO. 373-5869 7701	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #4	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 7days 3/28/12
ICE CHEST NO. GWS-110	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2N3

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2N1	SOIL	MAR 28 2012	1307	✓

TF/L-12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME MAR 28 2012 1500	RECEIVED BY/STORED IN SSU-1	DATE/TIME MAR 28 2012 1500
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JAN 04 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME JAN 04 2012 0700
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME JAN 04 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN KELENSON	DATE/TIME 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
West Side Sample #4 ** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-268	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4718	TELEPHONE NO. 373-5869 7701	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #5	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 7days 4/1/12
ICE CHEST NO. GWS-110	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2N6

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2N4	SOIL	APR 01 2012	1048	✓

CF/L- 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR 04 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR 04 2012 0700
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME APR 04 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN Alex Kelenson KELENSON	DATE/TIME 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
West Side Sample #5 ** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-271	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4718	TELEPHONE NO. 373-5869 7701	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #6	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 7 days 4/1/12
ICE CHEST NO. GWS-110	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2N9

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2N7	SOIL	APR 01 2012	1225	✓

F/L 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR 04 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR 04 2012 0700
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME APR 04 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN Alex Kelleno KELENSON	DATE/TIME 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
East Side Sample #1 ** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-274	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4718	TELEPHONE NO. 373-5869 7701	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND ~~15 Days / 15 Days~~ 7 days 4/11/12
SAMPLING LOCATION Area AH In-Process Sample #7	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092		
ICE CHEST NO. GWS-110	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2P2

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2P0	SOIL	APR 01 2012	1237	✓

FA-12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR 04 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR 04 2012 0700
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME APR 04 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN Alex Kelleson KELLENSON	DATE/TIME 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
East Side Sample #2 ** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-277	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4718	TELEPHONE NO. 373-5869 7701	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #8	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 7 days 4/1/12
ICE CHEST NO. GWS-110	FIELD LOGBOOK NO. HNF-N-507-24.	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2P5

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2P3	SOIL	APR 01 2012	1248	✓

TF-12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JAN 04 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME JAN 04 2012 0700
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME JAN 04 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN Alex Kelleyson KELLEYSON	DATE/TIME 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
East Side Sample #3 ** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-280	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4718	TELEPHONE NO. 373-5869 7701	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #9	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 7days 4/1/12
ICE CHEST NO. GW5110	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2P8

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2P6	SOIL	APR 01 2012	1258	✓

TL-12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JAN 04 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME JAN 04 2012 0700
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME JAN 04 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN Alex Kelleson KELLEWSON	DATE/TIME 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
East Side Sample #4 ** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-295	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4718	TELEPHONE NO. 373-5869 7701	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 7Days/7days 3/28/12
SAMPLING LOCATION Area AH In-Process Sample #14	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO. GW5110	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH N/A	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2T1	SOIL	MAR 28 2012	1050	✓

TRVL-12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME MAR 28 2012 1500	RECEIVED BY/STORED IN SSU-1	DATE/TIME MAR 28 2012 1500
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JAN 04 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME JAN 04 2012 0700
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME JAN 04 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN Alex Kelleerson KELLERSON	DATE/TIME 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/27/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-297	PAGE 1 OF 1
COLLECTOR K. Patterson / CHPRC	COMPANY CONTACT TRENT, SJ H4718	TELEPHONE NO. 373-5869 7701	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #15	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 7days 4/1/12
ICE CHEST NO. GWS-110	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH (N/A)	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. 04/4/12 SEE PTR ~~3665~~ 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2T3	SOIL	APR 0 1 2012	0740	✓

TFVL- 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM K. Patterson	DATE/TIME APR 0 1 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 0 1 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR 0 4 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR 0 4 2012 0700
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME APR 0 4 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN Alex Kelenn KELENON 4/6/12	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/27/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-299	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4718	TELEPHONE NO. 373-5869 7701	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 7 days 8/4 3/28/1
SAMPLING LOCATION Area AH In-Process Sample #16	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO. GWS-110	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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 RADIOACTIVE TIE TO: B2L2T7	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

TFVL- 12- 044

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2T5	SOIL	MAR 2 8 2012	1330	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME MAR 2 8 2012 1500	RECEIVED BY/STORED IN SSU-1	DATE/TIME MAR 2 8 2012 1500
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JAN 0 4 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME JAN 0 4 2012 0700
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME JAN 0 4 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN flex kelenson KELENSON	DATE/TIME 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/27/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-302	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4718	TELEPHONE NO. 373-5869 7701	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND ~~15 Days / 15 Days~~ 7days 4/1/12
SAMPLING LOCATION Area AH In-Process Sample #17	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092		
ICE CHEST NO. GWS-110	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2V0

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2T8	SOIL	APR 01 2012	0921	✓

TF/L-12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR 04 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR 04 2012 0700
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME APR 04 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN Alex Kelleu KELLENSON	DATE/TIME 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
* The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/27/2012

A-6003-618 (REV 2)

1.0 GENERAL

CH2M Hill Plateau Remediation Company (CHPRC) Sample Delivery Group H4719 was composed of thirteen soil samples designated under SAF No. F11-092 with a Project Designation of: Area AH In-Processing Sampling - Soil.

The samples were received as stated on the Chain-of-Custody document. Any discrepancies are noted on the Eberline Analytical Sample Receipt Checklist.

2.0 ANALYSIS NOTES

2.1 Tritium Analysis

No problems were encountered during the course of the analyses. The results for both the original and duplicate analyses were less than their respective MDAs therefore no RPD or statistical control limit is calculated.

2.2 Carbon-14 Analysis, Low Level

No problems were encountered during the course of the analyses.

3.0 Case Narrative Certification Statement

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

4/13/12

Joseph Verville
Client Services Manager

Date

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-305	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4719	TELEPHONE NO. 373-5869 T02	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 04/11/12 7days
SAMPLING LOCATION Area AH 100-K-6	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO. GWS-110	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2V3

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2V1	SOIL	APR 01 2012	1023	✓

TPA- 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR 04 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR 04 2012 0700
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME APR 04 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN KELENSON	DATE/TIME 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-308	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4719	TELEPHONE NO. 373-5869 T702	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 132-KE-1	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 7 days 4/6/12
ICE CHEST NO. GWS-110	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2V6

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2V4	SOIL	APR 01 2012	1013	✓

IP-AL-12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR 04 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR 04 2012 0700
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME APR 04 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN Alex Kelenson KELENSON	DATE/TIME 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-311	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4719	TELEPHONE NO. 373-5869 T702	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-46	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 7 days 4/4/12
ICE CHEST NO. GWS-110	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2V9

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2V7	SOIL	APR 01 2012	0906	✓

TRVL- 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR 04 2012 0700	RECEIVED BY/STORED IN AC Patterson CHPRC	DATE/TIME APR 04 2012 0700
RELINQUISHED BY/REMOVED FROM AC Patterson CHPRC	DATE/TIME APR 04 2012 1800	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN Alex Kelleny KELENSON	DATE/TIME 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-314	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4719	TELEPHONE NO. 373-5869 7702	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 119-KE	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 7 days 4/6/12
ICE CHEST NO. GWS-110	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2W2

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2W0	SOIL	APR 01 2012	0855	✓

TFVL- 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR 04 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR 04 2012 0700
RELINQUISHED BY/REMOVED FROM Patterson CHPRC	DATE/TIME APR 04 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN KELENSON	DATE/TIME 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-317	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4719	TELEPHONE NO. 373-5869 7702	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-62 Sample #1	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 7 days OH 3/28/12
ICE CHEST NO. GW5110	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2W5

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2W3	SOIL	MAR 28 2012	1330	✓

TRVL- 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME MAR 28 2012 1500	RECEIVED BY/STORED IN SSU-1	DATE/TIME MAR 28 2012 1500
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR JAN 04 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR JAN 04 2012 0700
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME APR JAN 04 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN Alex Kelenson KELENSON	DATE/TIME 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-320	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4719	TELEPHONE NO. 373-5869 7702	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 7 days 3/28/12
SAMPLING LOCATION Area AH 100-K-62 Sample #2	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO. GWS-110	FIELD LOGBOOK NO. HNF-N-507-~~2A~~	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	None
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	HOLDING TIME	6 Months
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	120mL
	SPECIAL HANDLING AND/OR STORAGE RADIOACTIVE TIE TO: B2L2W8	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2W6	SOIL	MAR 28 2012	1347	✓

TPA- 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME MAR 28 2012 1500	RECEIVED BY/STORED IN SSU-1	DATE/TIME MAR 28 2012 1500	** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium. (1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME AKR JAN 04 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME JAN 04 2012 AKR 0700	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME AKR JAN 04 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME	
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN Alex Kelenson KELENSON	DATE/TIME 4/6/12 10:00	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-323	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4719	TELEPHONE NO. 373-5869 7702	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-62 Sample #3	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 7 days OH 4/1/12
ICE CHEST NO. GWS-110	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2X1

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2W9	SOIL	APR 01 2012	0816	✓

TP /L- 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR 04 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR 04 2012 0700
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME APR 04 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN Alex Kelenson KELENSON	DATE/TIME 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-326	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4719	TELEPHONE NO. 373-5869 7702	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-62 Sample #4	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 7days 4/1/12
ICE CHEST NO. GWS-110	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2X4

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2X2	SOIL	APR 01 2012	0827	✓

TPVL-12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR 04 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR 04 2012 0700
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME APR 04 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN Alex Kelenson KELENSON	DATE/TIME 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F11-092-329	PAGE 1 OF 1

COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ H4719	TELEPHONE NO.: 373-5869 7702	PROJECT COORDINATOR: TRENT, SJ
SAMPLING LOCATION: Area AH 100-K-62 Sample #5	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092
ICE CHEST NO.: GWS-110	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10
SHIPPED TO: Eberline Services	OFFSITE PROPERTY NO.: SEE PTR 3655		BILL OF LADING/AIR BILL NO.: SEE PTR 7934 1683 0516

PRICE CODE: 8C
AIR QUALITY: ☐
DATA TURNAROUND: ~~15 Days / 15 Days~~ 7 days 4/1/12
METHOD OF SHIPMENT: FEDERAL EXPRESS
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
RADIOACTIVE TIE TO: B2L2X7

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2X5	SOIL	APR 01 2012	0921	✓

TPVL-12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 04 2012 0700	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: APR 04 2012 0700
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: APR 04 2012 1500	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FEDEX	DATE/TIME:	RECEIVED BY/STORED IN: KELENSON	DATE/TIME: 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME:	RECEIVED BY/STORED IN	DATE/TIME:
RELINQUISHED BY/REMOVED FROM	DATE/TIME:	RECEIVED BY/STORED IN	DATE/TIME:
RELINQUISHED BY/REMOVED FROM	DATE/TIME:	RECEIVED BY/STORED IN	DATE/TIME:

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-332	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4719	TELEPHONE NO. 373-5869 7702	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND ~~15 Days / 15 Days~~ 7days 4/1/12
SAMPLING LOCATION Area AH 100-K-62 Sample #6	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092		
ICE CHEST NO. GWS-110	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2Y0

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2X8	SOIL	APR 01 2012	0934	✓

TPVL- 12- 044

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CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR 04 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR 04 2012 0700
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME APR 04 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN Alex Kelenson KELENSON	DATE/TIME 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-335	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4719	TELEPHONE NO. 373-5869 7702	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-62 Sample #7	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 7 days 4/1/12
ICE CHEST NO. GWS - 110	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2Y3

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2Y1	SOIL	APR 01 2012	0948	✓

TFVL- 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR 04 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR 04 2012 0700
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME APR 04 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN flex kelenson KELENSON 4/6/12 10:00	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-338	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4719	TELEPHONE NO. 373-5869 7702	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 7 days 4/1/12
SAMPLING LOCATION Area AH 100-K-53 Sample #1	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO. GW5-110	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2Y6

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2Y4	SOIL	APR 01 2012	1216	✓

TP-L- 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR 04 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR 04 2012 0700
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME APR 04 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN KELENSON	DATE/TIME 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-341	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ H4719	TELEPHONE NO. 373-5869 7702	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND ~~15 Days / 15 Days~~ 7 days
SAMPLING LOCATION Area AH 100-K-53 Sample #2	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092		
ICE CHEST NO. GWS-110	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 3655		BILL OF LADING/AIR BILL NO. SEE PTR 7934 1683 0516		

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
RADIOACTIVE TIE TO: B2L2Y9

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

TF'/L- 12- 044

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2L2Y7	SOIL	APR 01 2012	1034	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM FM Hall	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR 04 2012 1500	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR 04 2012 1500
RELINQUISHED BY/REMOVED FROM Patterson CHPRC	DATE/TIME APR 04 2012 1500	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN Alex Kelleson KELLEYSON	DATE/TIME 4/6/12 10:00
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to achieve a detection limit of 10 pCi/g for Tritium.
(1) C14 - LOW LEVEL {Carbon-14}; Tritium - H3 {Tritium};

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

Attachment 2
Narrative
WSCF120424

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
WSCF120424

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):

- All applicable QC controls are within the established limits.

ICP-AES 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):

- All 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 – MS / MSD Relative Percent Difference (RPD) is outside established laboratory limits. The quality control report was flagged for RPD failure. Affected sample results in this batch were "N" flagged.
- Chromium and Vanadium – 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.

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

- All applicable QC controls are within the established limits.

Radiochemistry Comments

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

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

- Gamma Energy Analysis:
  - All applicable QC controls are within the established limits.
- Americium-241:
  - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
  - All other applicable QC controls are within the established limits.

Attachment 2
Narrative
WSCF120424

- Isotopic Plutonium analysis:
  - Plutionium-239/240 – The Blank is less than two times the RDL. "B" Flag not required.
  - All other applicable QC controls are within the established limits.
- Isotopic Uranium analysis:
  - Uranium-234 and Uranium-238 – The Blank is less than two times the RDL. "B" Flag not required.
  - Uranium-235 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
  - All other applicable QC controls are within the established limits.
- Strontium-89/90:
  - All 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			F11-092-257	PAGE 1 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION Area AH In-Process Sample #1	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	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: 120424

PRESERVATION	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2M3	SOIL	MAR 28 2012	1100	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME MAR 28 2012 1500	RECEIVED BY/STORED IN SSU-1	DATE/TIME MAR 28 2012 1500	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME MAR 29 2012 0800	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME MAR 29 2012 0800	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME MAR 29 2012 0815	RECEIVED BY/STORED IN Cynthia R Johnson	DATE/TIME MAR 29 2012 0815	
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 3/26/2012

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-257	PAGE 2 OF 2
OLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days
AMPLING LOCATION Area AH In-Process Sample #1	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
CE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
HIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

PECIAL INSTRUCTIONS

Vest Side Sample #1 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI pplies 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, eryllium, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-260	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION: Area AH In-Process Sample #2	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-74-	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2M6 2	SOIL	MAR 28 2012	1120	✓	✓	✓	✓

12-044

CHAIN OF POSSESSION	DATE/TIME	SIGN/ PRINT NAMES: RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	MAR 28 2012 1500	SSU-1	MAR 28 2012 1500
RELINQUISHED BY/REMOVED FROM: SSU-1	MAR 29 2012 0800	RECEIVED BY/STORED IN: KG Patterson	MAR 29 2012 0800
RELINQUISHED BY/REMOVED FROM: KG Patterson, CHPRC	MAR 29 2012 0815	RECEIVED BY/STORED IN: Cynthia R Johnson	MAR 29 2012 0815
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/26/2012

A-6003 618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-260	PAGE 2 OF 2
LLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days
MPLING LOCATION ea All In-Process Sample #2	PROJECT DESIGNATION Area All In-Process Sampling - Soil		SAF NO. F11 092	AIR QUALITY ☐	
CHEST NO.	FIELD LOGBOOK NO. HNF -N-507-24-	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
IPPED TO aste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

ECIAL INSTRUCTIONS

est Side Sample #2 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI plies to this SAF.

) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, ryllium, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12- 044

NTED ON 3/26/2012 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-263	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION: Area AH In-Process Sample #3	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2M9 3	SOIL	MAR 28 2012	1300	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: MAR 28 2012	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: MAR 28 2012 1500
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: MAR 29 2012 0800	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: MAR 29 2012 0800
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: MAR 29 2012 0815	RECEIVED BY/STORED IN: Cynthia R Johnson	DATE/TIME: MAR 29 2012 0815
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-263	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION Area AH In-Process Sample #3	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

West Side Sample #3 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12- 044

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-266	PAGE 1 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION Area AH In-Process Sample #4	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-21	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2N2 4	SOIL	MAR 28 2012	1307	✓	✓	✓	✓

12-043

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME MAR 28 2012 1500	RECEIVED BY/STORED IN SSU-1	DATE/TIME MAR 28 2012 1500	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME MAR 29 2012 0800	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME MAR 29 2012 0800	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME MAR 29 2012 0815	RECEIVED BY/STORED IN Cynthia R Johnson	DATE/TIME MAR 29 2012 0815	
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 3/26/2012

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-266	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION Area AH In-Process Sample #4	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

West Side Sample #4 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-318	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION: Area AH 100-K-62 Sample #1	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2W4 5	SOIL	MAR 28 2012	1330	✓	✓	✓	✓

CPVL- 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: MAR 28 2012 1500	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: MAR 28 2012 1500
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: MAR 29 2012 0800	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: MAR 29 2012 0800
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: MAR 29 2012 0815	RECEIVED BY/STORED IN: Cynthia R Johnson	DATE/TIME: MAR 29 2012 0815
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/26/2012 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-318	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-62 Sample #1	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-321	PAGE 1 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 35 Days~~ 12 days
SAMPLING LOCATION Area AH 100-K-62 Sample #2	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	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			Cool~4C	Cool~4C	None	None
HOLDING TIME			6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER			G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)			1	1	1	1
VOLUME			120mL	120mL	500mL	120mL
SAMPLE ANALYSIS			SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS
SAMPLE NO.	MATRIX*	SAMPLE DATE SAMPLE TIME				
B2L2W7 6	SOIL	MAR 28 2012 1347	✓	✓	✓	✓

TPA 12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME MAR 28 2012 1530	RECEIVED BY/STORED IN SSU-1	DATE/TIME MAR 28 2012 1500	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME MAR 29 2012 0800	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME MAR 29 2012 0800	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME MAR 29 2012 0815	RECEIVED BY/STORED IN Cynthia R Johnson	DATE/TIME MAR 29 2012 0815	
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 3/26/2012

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-321	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-62 Sample #2	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days OH 3/23/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12- 044

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-296	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days (3/28/12)
SAMPLING LOCATION: Area AH In-Process Sample #14	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: N/A	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2T2 7	SOIL	MAR 28 2012	1050	✓	✓	✓	✓

TRVL-12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: MAR 28 2012 1500	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: MAR 28 2012 1500	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: MAR 29 2012 1000	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: MAR 29 2012 1000	
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: MAR 29 2012 0815	RECEIVED BY/STORED IN: Cynthia R Johnson	DATE/TIME: MAR 29 2012 0815	
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 3/27/2012

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-296	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #14	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH N/A	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

IFA 12- 044

PRINTED ON 3/27/2012

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-300	PAGE 1 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 3/28/12
SAMPLING LOCATION Area AH In-Process Sample #16	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2T6 8	SOIL	MAR 28 2012	~~130~~ 1330	✓	✓	✓	✓

12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME MAR 28 2012 1500	RECEIVED BY/STORED IN SSU-1	DATE/TIME MAR 28 2012 1500	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME MAR 29 2012 0800	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME MAR 29 2012 0800	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME MAR 29 2012 0815	RECEIVED BY/STORED IN Cynthia R Johnson	DATE/TIME MAR 29 2012 0815	
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

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST			F11-092-300	PAGE 2 OF 2
COLLECTOR FM Hali CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #16	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 3/29/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PA 12- 044

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Attachment 2
Narrative
WSCF120428

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
WSCF120428

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):

- All applicable QC controls are within the established limits.

ICP-AES 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):

- All 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):

- Batch QC 198390
  - Selenium – Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged. The quality control report was flagged for RPD failure.
  - Vanadium and Chromium – Detected in the Blank and evaluated. No sample results in this batch were affected. "C" Flags not required.
- Batch QC 198391
  - Manganese – Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - Vanadium and Chromium – 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.

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

- All applicable QC controls are within the established limits.

Radiochemistry Comments

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

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

Attachment 2
Narrative
WSCF120428

- Gamma Energy Analysis:
  - All applicable QC controls are within the established limits.
- Americium-241:
  - Batch QC 198292
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
  - Batch QC 198291
    - The Blank is less than two times the RDL. "B" Flag not required.
  - Batch QC 198290
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Poor reproducibility may be due to sample inhomogeneity. No flags issued.
    - Americium-243 – Tracer recovery did not meet the established laboratory limits for sample B2L2W1 (120428004). No flags issued on sample results. The quality control report was flagged for the failure.
    - All other applicable QC controls are within the established limits.
- Isotopic Plutonium analysis:
  - Batch QC 198290
    - Plutonium-238 - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Poor reproducibility may be due to sample inhomogeneity. No flags issued.
    - Plutonium-239/240 - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Poor reproducibility may be due to sample inhomogeneity. No flags issued.
    - All other applicable QC controls are within the established limits.
- Isotopic Uranium analysis:
  - Batch QC 198292

- Uranium-235 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
- Uranium-234, Uranium-235 and Uranium-238 - The Blank is less than two times the RDL. "B" Flag not required.

  - Batch QC 198291
    - Uranium-234 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. No flags issued on sample results. The quality control report was flagged for RPD failure.
    - Uranium-234 and Uranium-238 - The Blank is less than two times the RDL. "B" Flag not required.
  - Batch QC 198290
    - Uranium-234 and Uranium-238 – The Blank is less than five times the MDC. "B" Flag not required.
    - All other applicable QC controls are within the established limits.

- Strontium-89/90:
  - Batch QC 198294
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
    - 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			F11-092-312	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 7 days 72
SAMPLING LOCATION: Area AH 100-K-46	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	4/1/12 4/1/12
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-2H	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10	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)

120428

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2V8 /	SOIL	APR 01 2012	0906	✓	✓	✓	✓

TRL- 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: APR 02 2012 0845	
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

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-312	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-46	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 4/1/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

TRL 12- 044

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-339	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH 100-K-53 Sample #1	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2Y5 2	SOIL	APR 01 2012	1216	✓	✓	✓	✓

APL 12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0720
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson Nelson	DATE/TIME: APR 02 2012 0845
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-339	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-53 Sample #1	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 4/1/11
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023FS20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12- 044

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-272	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH In-Process Sample #6	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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				Cool~4C	Cool~4C	None	None
HOLDING TIME				6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER				G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)				1	1	1	1
VOLUME				120mL	120mL	500mL	120mL
SAMPLE ANALYSIS				SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2N8 3	SOIL	APR 01 2012	1225	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
FM Hall	APR 01 2012 1400	SSU-1	APR 01 2012 1400	
SSU-1	APR 02 2012 0700	KC Patterson	APR 02 2012 0720	
KC Patterson	APR 02 2012 0845	M. Nelson	APR 02 2012 0845	

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

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Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-272	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #6	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 4/1/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

East Side Sample #1 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-315	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days
SAMPLING LOCATION: Area AH 119-KE	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2W1 4	SOIL	APR 01 2012	0855	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0720
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson Moers	DATE/TIME: APR 02 2012 0845
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/26/2012 A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-315	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 2/11/12
SAMPLING LOCATION Area AH 119-KE	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-34	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

044

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A-6003-61R (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-275	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH In-Process Sample #7	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24-	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None			
HOLDING TIME	6 Months	30 Days	6 Months	6 Months			
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P			
NO. OF CONTAINER(S)	1	1	1	1			
VOLUME	120mL	120mL	500mL	120mL			
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS			
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2P1 5	SOIL	APR 01 2012	1237	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0700	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0700	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: APR 02 2012 0845	
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 3/26/2012

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-275	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/11/12
SAMPLING LOCATION Area AH In-Process Sample #7	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

East Side Sample #2 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-342	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH 100-K-53 Sample #2	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None	
HOLDING TIME	6 Months	30 Days	6 Months	6 Months	
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P	
NO. OF CONTAINER(S)	1	1	1	1	
VOLUME	120mL	120mL	500mL	120mL	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2Y8 6	SOIL	APR 01 2012	1034	✓	✓	✓	✓

12- 044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: APR 02 2012 0845	
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 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-342	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND ~~15 Days / 15 Days~~ 24 4/1/12 12 Days
SAMPLING LOCATION Area AH 100-K-53 Sample #2	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092		
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-278	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 24 4/11/12
SAMPLING LOCATION: Area AH In-Process Sample #8	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2P4 7	SOIL	APR 01 2012	1248	✓	✓	✓	✓

CHAIN OF POSSESSION: RELINQUISHED BY/REMOVED FROM	DATE/TIME	SIGN/ PRINT NAMES: RECEIVED BY/STORED IN	DATE/TIME
FM Hall CHPRC	APR 01 2012 HCC	SSU-1	APR 01 2012 HCC
SSU-1	APR 02 2012 0720	KC Patterson CHPRC	APR 02 2012 0720
KC Patterson CHPRC	APR 02 2012 0825	M. Nelson	APR 02 2012 0825

SPECIAL INSTRUCTIONS: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-278	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE BC	DATA TURNAROUND
SAMPLING LOCATION Area AH In-Process Sample #8	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 4/1/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

East Side Sample #3 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-092-336	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C; DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH 100-K-62 Sample #7	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: [ ]
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 30271RES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2Y2	SOIL	APR 01 2012	0948	✓	✓	✓	✓

12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0720
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M Nelson	DATE/TIME: APR 02 2012 0845
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/26/2012

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-336	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION Area AH 100-K-62 Sample #7	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-269	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH In-Process Sample #5	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2N5 9	SOIL	APR 01 2012	1048	✓	✓	✓	✓

12-041

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 APR 01 2012 0720	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0720
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: APR 02 2012 0845
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

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Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-269	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days. 4/1/12
SAMPLING LOCATION Area AH In-Process Sample #5	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24-	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

West Side Sample #5 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-327	PAGE 1 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~45 Days / 15 Days~~ 12 days 04/11/12
SAMPLING LOCATION Area AH 100-K-62 Sample #4	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	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					
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	Cool~4C	Cool~4C	None	None
		HOLDING TIME	6 Months	30 Days	6 Months	6 Months
		TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
		NO. OF CONTAINER(S)	1	1	1	1
		VOLUME	120mL	120mL	500mL	120mL
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2X3 10	SOIL	APR 01 2012	0827	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM FM Hall CHPRC	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR 02 2012 0720	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM KC Patterson	DATE/TIME APR 02 2012 0815	RECEIVED BY/STORED IN M. Nelsmkness	DATE/TIME APR 02 2012 0815	
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 3/26/2012

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-327	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/11/12
SAMPLING LOCATION Area AH 100-K-62 Sample #4	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092		
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12- 044

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-298	PAGE 1 OF 2
COLLECTOR K. Patterson / CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND ~~15 Days / 15 Days~~ 4/11/12 12 days
SAMPLING LOCATION Area AH In-Process Sample #15	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092		
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH (N/A)	COA 302718ES10	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, OL=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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

TPA-12-044

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2T4 11	SOIL	APR 01 2012	0740	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM K. Patterson	DATE/TIME APR 01 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME APR 02 2012 0700	RECEIVED BY/STORED IN KC Patterson CHPRC	DATE/TIME APR 02 2012 0700	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME APR 02 2012 0845	RECEIVED BY/STORED IN M. Nelson M. Nelson	DATE/TIME APR 02 2012 0845	
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 3/27/2012

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Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-298	PAGE 2 OF 2
COLLECTOR K. Patterson	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/11/12
SAMPLING LOCATION Area AH In-Process Sample #15	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092		
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH (N/A)	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

SFAL 12- 044

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-306	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH 100-K-6	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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 Solics, 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	Cool~4C	Cool~4C	None	None	
HOLDING TIME	6 Months	30 Days	6 Months	6 Months	
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P	
NO. OF CONTAINER(S)	1	1	1	1	
VOLUME	120mL	120mL	500mL	120mL	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	
SAMPLE NO. / MATRIX*					
B2L2V2 12 / SOIL					
SAMPLE DATE / SAMPLE TIME	APR 01 2012 / 1023	✓	✓	✓	✓

12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0700	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0700	
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: APR 02 2012 0845	
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 3/26/2012

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-306	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-6	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 24 4/11/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12- 044

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-303	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH In-Process Sample #17	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2T9 13	SOIL	APR 01 2012	0921	✓	✓	✓	✓

-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall	DATE/TIME: APR 01 2012 HLW	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 HLW
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: RC Patterson CHPRC	DATE/TIME: APR 02 2012 0720
RELINQUISHED BY/REMOVED FROM: RC Patterson CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson M. Nelson	DATE/TIME: APR 02 2012 0845
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/27/2012

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Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-303	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/11/12
SAMPLING LOCATION Area AH In-Process Sample #17	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-330	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 45 Days~~ 12 days
SAMPLING LOCATION: Area AH 100-K-62 Sample #5	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2X6 14	SOIL	APR 01 2012	0921	✓	✓	✓	✓

044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0720
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: M. Nelson M.Nelson	DATE/TIME: APR 02 2012 0845
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: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-330	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-62 Sample #5	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 4/11/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-309	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION: Area AH 132-KE-1	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF -N-507-24-	ACTUAL SAMPLE DEPTH: Surface	COA: 302/18E510	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2V5 15	SOIL	APR 01 2012	1013	✓	✓	✓	✓

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CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM: KC Patterson, CHPRC	DATE/TIME: APR 02 2012 0845	RECEIVED BY/STORED IN: N. Nelson	DATE/TIME: APR 02 2012 0845	
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 3/26/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-309	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days
SAMPLING LOCATION Area AH 132-KE-1	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092		
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302/18E510	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrate, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-324	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days
SAMPLING LOCATION: Area AH 100-K-62 Sample #3	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24	ACTUAL SAMPLE DEPTH: SURFACE	COA: 302718ES10	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	Cool-4C	Cool-4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2X0 16	SOIL	APR 01 2012	0816	✓	✓	✓	✓

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CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: APR 02 2012 0825	RECEIVED BY/STORED IN: M Nelson M Nels	DATE/TIME: APR 02 2012 0825	
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 3/26/2012

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-324	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AH 100-K-62 Sample #3	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	~~15 Days / 15 Days~~ 12 days 4/1/12
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-~~N-507~~-24-	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-281	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/16/12
SAMPLING LOCATION: Area AH In-Process Sample #9	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-24.	ACTUAL SAMPLE DEPTH: Surface	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2P7 17	SOIL	APR 01 2012	1258	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: APR 01 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 01 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 02 2012 0720	RECEIVED BY/STORED IN: RC Patterson CHPRC	DATE/TIME: APR 02 2012 0720	
RELINQUISHED BY/REMOVED FROM: RC Patterson CHPRC	DATE/TIME: APR 02 2012 0815	RECEIVED BY/STORED IN: M.Nelson	DATE/TIME: APR 02 2012 0815	
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 3/26/2012

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-281	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/1/12
SAMPLING LOCATION Area AH In-Process Sample #9	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	ORIGINAL
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH Surface	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

East Side Sample #4 ** The CACN for all analytical work at WSCF laboratory is 403023ES20.☐** 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, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
(2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-333	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: BC	DATA TURNAROUND: ~~15 Days / 15 Days~~ 12 days 4/11/12
SAMPLING LOCATION: Area AH 100-K-62 Sample #6	PROJECT DESIGNATION: Area AH In-Process Sampling - Soil		SAF NO.: F11-092	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-___-___	ACTUAL SAMPLE DEPTH	COA: 302718ES10	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	Cool~4C	Cool~4C	None	None
HOLDING TIME	6 Months	30 Days	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	120mL	120mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B2L2X9 18	SOIL	APR 0 1 2012	0934	✓	✓	✓	✓

12-044

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: APR 0 1 2012 1400	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: APR 0 1 2012 1400	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: APR 0 2 2012 0720	RECEIVED BY/STORED IN: KC Patterson CHPRC	DATE/TIME: APR 0 2 2012 0720	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: APR 0 2 2012 0845	RECEIVED BY/STORED IN: M Nelson	DATE/TIME: APR 0 2 2012 0845	
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 3/26/2012

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-092-333	PAGE 2 OF 2
OLLECTOR FM Hall CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND ~~15 Days / 15 Days~~ 12 days 4/11/12
AMPLING LOCATION Area AH 100-K-62 Sample #6	PROJECT DESIGNATION Area AH In-Process Sampling - Soil		SAF NO. F11-092	AIR QUALITY ☐	
CE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-24	ACTUAL SAMPLE DEPTH SURFACE	COA 302718ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
HIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

PECIAL INSTRUCTIONS

* The CACN for all analytical work at WSCF laboratory is 403023ES20.LJ** 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, eryllium, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium}; 200.8_HG - ICPMS {Mercury};
2) Chromium Hex - 7196; pH (Soil) - 9045; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
3) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
4) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

12- 044

INTED ON 3/26/2012

A-6003-618 (REV 2)

Appendix 5

Data Validation Supporting Documentation

Appendix B - Radiochemical Data Validation Checklist

RADIOCHEMICAL DATA VALIDATION CHECKLIST

VALIDATION LEVEL:	A	B	(C)	D	E
PROJECT: 100-K			DATA PACKAGE: VSR12-016		
VALIDATOR: Eyda Hergenreder		LAB: Eberline, WSCF		DATE: 06-15-2012	
			SDG: H4718, H4719, WSCF120424, WSCF120428		
ANALYSES PERFORMED					
Gross Alpha/Beta	Strontium-90 X	Technetium-99	Alpha Spectroscopy X	Gamma Spectroscopy X	
Total Uranium	Radium-22	Tritium X	C-14 X	I-129	

SAMPLES/MATRIX Soil samples

SDG H4718: B2L2M2, B2L2M5, B2L2M8, B2L2N1, B2L2N4, B2L2N7, B2L2P0, B2L2P3, B2L2P6, B2L2T1, B2L2T3, B2L2T5, B2L2T8

SDG H4719: B2L2V1, B2L2V4, B2L2V7, B2L2W0, B2L2W3, B2L2W6, B2L2W9, B2L2W9, B2L2X2, B2L2X5, B2L2X8, B2L2Y1, B2L2Y4, B2L2Y7

WSCF120424: B2L2M3, B2L2M6, B2L2M9, B2L2N2, B2L2W4, B2L2W7, B2L2T2, B2L2T6

WSCF120428: B2L2V8, B2L2Y5, B2L2N8, B2L2W1, B2L2P1, B2L2Y8, B2L2P4, B2L2Y2, B2L2N5, B2L2X3, B2L2T4, B2L2V2, B2L2T9, B2L2X6, B2L2V5, B2L2X0, B2L2P7, B2L2X9,

1. Completeness ..... ☐ N/A

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

Comments: None

2. Initial Calibration (Levels D, E) ..... ☒ N/A

Instruments/detectors calibrated? ..... Yes No N/A

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

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

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

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

Comments:

3. Continuing Calibration (Levels D, E)..... ☒ N/A

Calibration checked within required frequency? ..... Yes No N/A

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

Calibration check standards traceable? ..... Yes No N/A

Calibration check standards expired? ..... Yes No N/A

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

Comments:

4. Background Counts (Levels D, E) ..... ☒ N/A

Background Counts checked within required frequency? ..... Yes No N/A

Background Counts acceptable? ..... Yes No N/A

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

Comments:

5. Blanks (Levels B, C, D, E) ☐ N/A

Method blank analyzed within required frequency? (Yes) No N/A

Method blank results acceptable? Yes (No) N/A

Analytes detected in method blank? (Yes) No N/A

Field blank(s) analyzed? (Yes) No N/A

Field blank results acceptable? Yes (No) N/A

Analytes detected in field blank(s)? (Yes) No N/A

Transcription/Calculation Errors? (Levels D, E) Yes No (N/A)

Comments:

SDG WSCF120424: MB Pu-239/240 0.015 pCi/g; U-234 0.050 pCi/g; U-238 0.083 pCi/g
SDG WSCF120428: (batch 198290): MB U-234 0.027 pCi/g; U-238 0.035 pCi/g
(batch 198291): MB Am-241 0.026 pCi/g; U-234 0.037 pCi/g; U-238 0.039 pCi/g
(batch 198292) MB U-234 0.032 pCi/g; U-235 0.032 pCi/g; U-238 0.037 pCi/g.

EB sample B2L2T1: C-14 0.692 pCi/g
EB sample B2L2T2: Pu-239/240 0.026 pCi/g; U-234 0.055 pCi/g; U-238 0.036 pCi/g
EB sample B2L2T4: Pu-238 0.014 pCi/g; U-234 0.027 pCi/g; U-238 0.034 pCi/g

6. Laboratory Control Samples or Blank Spike Samples (Levels C, D, E) ☐ N/A

LCS /BSS analyzed within required frequency? (Yes) No N/A

LCS/BSS recoveries acceptable? (Yes) No N/A

LCS/BSS traceable? (Levels D,E) Yes No (N/A)

LCS/BSS expired? (Levels D,E) Yes No (N/A)

LCS/BSS levels correct? (Levels D,E) Yes No (N/A)

Transcription/Calculation Errors? (Levels D, E) Yes No (N/A)

Comments: None

7. Chemical Carrier Recovery (Levels C, D, E) ..... ☐ N/A

Chemical carrier added? ..... (Yes) No N/A

Chemical recovery acceptable? ..... (Yes) No N/A

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

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

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

Comments: None

8. Tracer Recovery (Levels C, D, E) ..... ☐ N/A

Tracer added? ..... (Yes) No N/A

Tracer recovery acceptable? ..... Yes (No) N/A

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

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

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

Comments:

WSCF120424: Sr-85 samples B2L2M3 66%; B2L2N2 62%; B2L2W4 58%; B2L2W7 68%; B2L2T2 66%; B2L2T6 66%
Pu-242: B2L2T6 65%

WSCF120428: Pu-242: B2L2W1 44%; B2L2P1 66%; B2L2P4 57%; B2L2V8Dup 62%: B2L2N5 65%; B2L2X3 56%; B2L2X0 46%
Am-243: B2L2X0 69%
Sr-85: B2L2P4 69%; B2L2X3 58%; B2L2X0 62%; B2L2P7 68%; B2L2X9 65%

LCS: (batch 198290) U-232 62%; (batch 198291) U-232 64%; (batch 198292) U-232 64%
MB: (batch 198291) Am-243 68%; Pu-242 58%: (batch 198292) Am-243 66%
MB (batch 198399) Sr-85 60%

9. Matrix Spikes (Levels C, D, E)..... ☐ N/A

Matrix spike analyzed?..... Yes No (N/A)

Spike recoveries acceptable? ..... Yes No (N/A)

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

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

Transcription/Calculation Errors? (Levels D, E)..... Yes No (N/A)

Comments: None

10. Duplicates (Levels C, D, E) ..... ☐ N/A

Duplicates Analyzed at required frequency? ..... (Yes) No N/A

RPD Values Acceptable?..... Yes (No) N/A

Transcription/Calculation Errors? (Levels D, E)..... Yes No (N/A)

Comments:

H4718: C-14 114% RPD
WSCF120428: (batch 198290) Am-241 RPD 102%: Pu-239/240 RPD 76%

11. Field QC Samples (Levels C, D E) ..... ☐ N/A

Field duplicate sample(s) analyzed? ..... (Yes) No N/A

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

Field split sample(s) analyzed? ..... Yes No (N/A)

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

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

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

Comments: None

12. Holding Times (All levels)

Are sample holding times acceptable? ..... (Yes) No N/A

Comments: None

13. Results and Detection Limits (All Levels) ..... ☐ N/A

Results reported for all required sample analyses? ..... (Yes) No N/A

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

Results Acceptable? (Levels D, E) ..... Yes No (N/A)

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

MDA's meet required detection limits? ..... Yes (No) N/A

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

Comments:

MDCs > CRDLs for associated non-detect sample results
B2L2Y5: Eu-152 0.15 pCi/g; Eu-155 0.19 pCi/g
B2L2N8: Eu-152 0.15 pCi/g; Eu-155 0.24 pCi/g
B2L2W1: Eu-152 0.15 pCi/g; Eu-154 0.15 pCi/g; Eu-155 0.20 pCi/g
B2L2P1: Eu-152 0.18 pCi/g; Eu-154 0.16 pCi/g; Eu-155 0.24 pCi/g
B2L2Y8: Eu-152 0.16 pCi/g; Eu-154 0.15 pCi/g; Eu-155 0.18 pCi/g
B2L2P4: Eu-154 0.16 pCi/g; Eu-155 0.16 pCi/g

(Continue next page)

B2L2Y2: Eu-155 0.17 pCi/g
B2L2N5: Eu-152 0.31 pCi/g; Eu-154 0.15 pCi/g; Eu-155 0.41 pCi/g
BEL2V2: Eu-152 0.16 pCi/g; Eu-154 0.17 pCi/g; Eu-155 0.23 pCi/g
B2L2T9: Eu-155 0.17 pCi/g
B2L2X6: Eu-154 0.15 pCi/g; Eu-155 0.17 pCi/g
B2L2V5: Eu-152 0.15 pCi/g; Eu-154 0.18 pCi/g; Eu-155 0.21 pCi/g
B2L2P7: Eu-152 0.17 pCi/g; Eu-155 0.22 pCi/g

Appendix 6

Additional Documentation Requested By Client

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4718

7701-015 Method Blank

METHOD BLANK

SDG	7701	Client/Case no	CHPRC	SDG H4718
Contact	N. Joseph Verville	Contract	No. 33677	
Lab sample id	S204028-15	Client sample id	Method Blank	
Dept sample id	7701-015	Material/Matrix		SOIL
		SAF No	F11-092	

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	0.452	2.0	3.41	400	U	H
Carbon 14	14762-75-5	0.194	1.2	0.522	1.00	U	C

QC-BLANK #81493

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4718

7701-014

Lab Control Sample

LAB CONTROL SAMPLE

SDG 7701
Contact N. Joseph Verville

Client/Case no CHPRC SDG H4718
Contract No. 33677

Lab sample id S204028-14
Dept sample id 7701-014

Client sample id Lab Control Sample
Material/Matrix SOIL
SAF No F11-092

ANALYTE	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST	ADDED pCi/g	2σ ERR pCi/g	REC %	3σ LMTS (TOTAL)	PROTOCOL LIMITS
Tritium	300	7.9	3.12	400		H	321	13	93	84-116	80-120
Carbon 14	1100	22	4.75	1.00		C	1040	42	106	83-117	80-120

QC-LCS #81492

Lab id EBRLNE
Protocol F11-092
Version Ver 1.0
Form DVD-LCS
Version 3.06
Report date 04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4718

7701-016 B2L2M2

DUPLICATE

SDG	7701			Client/Case no	CHPRC SDG H4718
Contact	N. Joseph Verville			Contract	No. 33677
	DUPLICATE		ORIGINAL		
Lab sample id	S204028-16	Lab sample id	S204028-01	Client sample id	B2L2M2
Dept sample id	7701-016	Dept sample id	7701-001	Location/Matrix	AreaAH In-Process Smpl#1 SOIL
		Received	04/06/12	Collected/Weight	03/28/12 11:00 113.7 g
% solids	93.3	% solids	93.3	Custody/SAF No	F11-092-256 F11-092

ANALYTE	DUPLICATE pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST	ORIGINAL pCi/g	2σ ERR (COUNT)	MDA pCi/g	QUALI-FIERS	RPD %	3σ TOT	DER σ
Tritium	1.07	2.4	4.04	400	U	H	2.73	2.5	4.03	U	-		1.0
Carbon 14	5.69	1.1	0.539	1.00		C	1.57	1.2	0.531		114	72	4.8

QC-DUP#1 81494

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DUP
Version	3.06
Report date	04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4718

Test C Matrix SOIL
SDG 7701
Contact N. Joseph Verville

LAB METHOD SUMMARY

CARBON 14 IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4718

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Carbon 14
Preparation batch 7734-130					
S204028-01			7701-001	B2L2M2	1.57
S204028-02			7701-002	B2L2M5	2.89
S204028-03			7701-003	B2L2M8	65.5
S204028-04			7701-004	B2L2N1	10.7
S204028-05			7701-005	B2L2N4	4.09
S204028-06			7701-006	B2L2N7	4.98
S204028-07			7701-007	B2L2P0	8.54
S204028-08			7701-008	B2L2P3	7.69
S204028-09			7701-009	B2L2P6	139
S204028-10			7701-010	B2L2T1	0.692
S204028-11			7701-011	B2L2T3	U
S204028-12			7701-012	B2L2T5	3.55
S204028-13			7701-013	B2L2T8	9.39
S204028-14			7701-014	Lab Control Sample	ok
S204028-15			7701-015	Method Blank	U
S204028-16			7701-016	Duplicate (S204028-01)	OUT

Nominal values and limits from method RDLs (pCi/g) 1.00

Lab id EBRLNE
Protocol F11-092
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4718

Test C Matrix SOIL
SDG 7701
Contact N. Joseph Verville

LAB METHOD SUMMARY

CARBON 14 IN SOLIDS
LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4718

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 7734-130			2σ prep error 10.0 % Reference Lab Notebook 7724 pg. 119													
S204028-01			B2L2M2	0.531	0.614			100		800			9	04/06/12	04/06	LSC-004
S204028-02			B2L2M5	0.694	0.622			100		400			9	04/06/12	04/06	LSC-004
S204028-03			B2L2M8	0.679	0.642			100		400			9	04/06/12	04/06	LSC-004
S204028-04			B2L2N1	0.679	0.627			100		400			9	04/06/12	04/06	LSC-004
S204028-05			B2L2N4	0.668	0.640			100		400			5	04/06/12	04/06	LSC-004
S204028-06			B2L2N7	0.693	0.636			100		400			5	04/06/12	04/06	LSC-004
S204028-07			B2L2P0	0.730	0.602			100		400			5	04/06/12	04/06	LSC-004
S204028-08			B2L2P3	0.675	0.633			100		400			6	04/06/12	04/07	LSC-007
S204028-09			B2L2P6	1.55	0.684			100		65			6	04/07/12	04/07	LSC-007
S204028-10			B2L2T1	0.645	0.641			100		400			10	04/07/12	04/07	LSC-007
S204028-11			B2L2T3	0.725	0.646			100		400			6	04/07/12	04/07	LSC-007
S204028-12			B2L2T5	0.637	0.669			100		400			11	04/07/12	04/08	LSC-007
S204028-13			B2L2T8	0.690	0.622			100		400			7	04/07/12	04/08	LSC-007
S204028-14			Lab Control Sample	4.75	0.616			100		9				04/07/12	04/08	LSC-007
S204028-15			Method Blank	0.522	0.616			100		800				04/07/12	04/10	LSC-004
S204028-16			Duplicate (S204028-01)	0.539	0.606			100		800			9	04/06/12	04/06	LSC-004
Nominal values and limits from method				1.00	0.602					10			180			

PROCEDURES REFERENCE C14_COX_LSC
CP-251 Tritium/Carbon-14 Oxidation, rev 11

AVERAGES ± 2 SD MDA 0.963 ± 2.07
FOR 16 SAMPLES YIELD 100 ± 0

Lab id EBRLNE
Protocol F11-092
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4718

Test H Matrix SOIL
SDG 7701
Contact N. Joseph Verville

LAB METHOD SUMMARY

TRITIUM IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4718

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Tritium
Preparation batch 7734-130					
S204028-01			7701-001	B2L2M2	U
S204028-02			7701-002	B2L2M5	U
S204028-03			7701-003	B2L2M8	U
S204028-04			7701-004	B2L2N1	U
S204028-05			7701-005	B2L2N4	U
S204028-06			7701-006	B2L2N7	U
S204028-07			7701-007	B2L2P0	U
S204028-08			7701-008	B2L2P3	U
S204028-09			7701-009	B2L2P6	5.31
S204028-10			7701-010	B2L2T1	U
S204028-11			7701-011	B2L2T3	U
S204028-12			7701-012	B2L2T5	U
S204028-13			7701-013	B2L2T8	U
S204028-14			7701-014	Lab Control Sample	ok
S204028-15			7701-015	Method Blank	U
S204028-16			7701-016	Duplicate (S204028-01)	- U

Nominal values and limits from method RDLs (pCi/g) 400

Lab id EBRLNE
Protocol F11-092
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4718

Test H Matrix SOIL
SDG 7701
Contact N. Joseph Verville

LAB METHOD SUMMARY

TRITIUM IN SOLIDS
LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4718

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 7734-130			2σ prep error 10.0 %	Reference Lab Notebook 7724 pg. 119												
S204028-01			B2L2M2	4.03	0.614			100		50			12	04/07/12	04/09	LSC-004
S204028-02			B2L2M5	3.72	0.622			100		50			12	04/07/12	04/09	LSC-004
S204028-03			B2L2M8	3.58	0.642			100		50			12	04/07/12	04/09	LSC-004
S204028-04			B2L2N1	3.56	0.627			100		50			12	04/07/12	04/09	LSC-004
S204028-05			B2L2N4	3.72	0.640			100		50			8	04/07/12	04/09	LSC-004
S204028-06			B2L2N7	3.86	0.636			100		50			8	04/07/12	04/09	LSC-004
S204028-07			B2L2P0	3.82	0.602			100		50			8	04/07/12	04/09	LSC-004
S204028-08			B2L2P3	3.83	0.633			100		50			8	04/07/12	04/09	LSC-004
S204028-09			B2L2P6	3.31	0.684			100		50			8	04/07/12	04/09	LSC-004
S204028-10			B2L2T1	3.52	0.641			100		50			12	04/07/12	04/09	LSC-004
S204028-11			B2L2T3	3.22	0.646			100		50			8	04/07/12	04/09	LSC-004
S204028-12			B2L2T5	3.52	0.669			100		50			12	04/07/12	04/09	LSC-004
S204028-13			B2L2T8	3.90	0.622			100		50			8	04/07/12	04/09	LSC-004
S204028-14			Lab Control Sample	3.12	0.616			100		50				04/07/12	04/10	LSC-004
S204028-15			Method Blank	3.41	0.616			100		50				04/07/12	04/09	LSC-004
S204028-16			Duplicate (S204028-01)	4.04	0.606			100		50			12	04/07/12	04/09	LSC-004
Nominal values and limits from method				400	0.602					25			180			

PROCEDURES REFERENCE TRITIUM_COX_LSC
CP-251 Tritium/Carbon-14 Oxidation, rev 11

AVERAGES ± 2 SD FOR 16 SAMPLES
MDA 3.64 ± 0.555
YIELD 100 ± 0

Lab id EBRLNE
Protocol F11-092
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4719

7702-015 Method Blank

METHOD BLANK

SDG	7702	Client/Case no	CHPRC	SDG	H4719
Contact	N. Joseph Verville	Contract	No. 33677		
Lab sample id	S204029-15	Client sample id	Method Blank		
Dept sample id	7702-015	Material/Matrix		SOIL	
		SAF No	F11-092		

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-1.81	1.8	3.31	400	U	H
Carbon 14	14762-75-5	0	0.43	0.723	1.00	U	C

QC-BLANK #81496

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4719

7702-014

Lab Control Sample

LAB CONTROL SAMPLE

SDG 7702
Contact N. Joseph Verville

Client/Case no CHPRC SDG H4719
Contract No. 33677

Lab sample id S204029-14
Dept sample id 7702-014

Client sample id Lab Control Sample
Material/Matrix SOIL
SAF No F11-092

ANALYTE	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST	ADDED pCi/g	2σ ERR pCi/g	REC %	3σ LMTS (TOTAL)	PROTOCOL LIMITS
Tritium	312	8.1	2.97	400		H	321	13	97	84-116	80-120
Carbon 14	1080	22	4.71	1.00		C	1040	42	104	83-117	80-120

QC-LCS #81495

Lab id EBRLNE
Protocol F11-092
Version Ver 1.0
Form DVD-LCS
Version 3.06
Report date 04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4719

7702-016 B2L2V1

DUPLICATE

SDG	7702			Client/Case no	CHPRC SDG H4719
Contact	N. Joseph Verville			Contract	No. 33677
	DUPLICATE		ORIGINAL		
Lab sample id	S204029-16	Lab sample id	S204029-01	Client sample id	B2L2V1
Dept sample id	7702-016	Dept sample id	7702-001	Location/Matrix	Area AH 100-K-6 SOIL
		Received	04/06/12	Collected/Weight	04/01/12 10:23 116.5 g
% solids	92.0	% solids	92.0	Custody/SAF No	F11-092-305 F11-092

ANALYTE	DUPLICATE pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST	ORIGINAL pCi/g	2σ ERR (COUNT)	MDA pCi/g	QUALI-FIERS	RPD %	3σ TOT	DER σ
Tritium	-1.20	2.1	3.76	400	U	H	-2.82	2.1	3.80	U	-		1.1
Carbon 14	32.0	0.71	0.713	1.00		C	34.8	0.75	0.745		8	22	1.2

QC-DUP#1 81497

Area AH In-Process Sampling - Soil

Lab id	EBRLNE
Protocol	F11-092
Version	Ver 1.0
Form	DVD-DUP
Version	3.06
Report date	04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4719

Test C Matrix SOIL
SDG 7702
Contact N. Joseph Verville

LAB METHOD SUMMARY

CARBON 14 IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4719

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Carbon 14
Preparation batch 7734-134					
S204029-01			7702-001	B2L2V1	34.8
S204029-02			7702-002	B2L2V4	14.5
S204029-03			7702-003	B2L2V7	7.57
S204029-04			7702-004	B2L2W0	10.1
S204029-05			7702-005	B2L2W3	U
S204029-06			7702-006	B2L2W6	2.70
S204029-07			7702-007	B2L2W9	1.10
S204029-08			7702-008	B2L2X2	9.68
S204029-09			7702-009	B2L2X5	12.4
S204029-10			7702-010	B2L2X8	9.22
S204029-11			7702-011	B2L2Y1	20.2
S204029-12			7702-012	B2L2Y4	48.1
S204029-13			7702-013	B2L2Y7	24.8
S204029-14			7702-014	Lab Control Sample	ok
S204029-15			7702-015	Method Blank	U
S204029-16			7702-016	Duplicate (S204029-01)	ok

Nominal values and limits from method RDLs (pCi/g) 1.00

Lab id EBRLNE
Protocol F11-092
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4719

Test C Matrix SOIL
SDG 7702
Contact N. Joseph Verville

LAB METHOD SUMMARY

CARBON 14 IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4719

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 7734-134			2σ prep error 10.0 % Reference Lab Notebook 7724 pg. 119													
S204029-01			B2L2V1	0.745	0.644			100		400			6	04/07/12	04/07	LSC-006
S204029-02			B2L2V4	0.694	0.670			100		400			7	04/08/12	04/08	LSC-006
S204029-03			B2L2V7	0.714	0.648			100		400			7	04/08/12	04/08	LSC-006
S204029-04			B2L2W0	0.745	0.622			100		400			8	04/08/12	04/09	LSC-006
S204029-05			B2L2W3	0.731	0.654			100		400			12	04/08/12	04/09	LSC-006
S204029-06			B2L2W6	0.726	0.658			100		400			12	04/08/12	04/09	LSC-006
S204029-07			B2L2W9	0.740	0.616			100		400			8	04/08/12	04/09	LSC-006
S204029-08			B2L2X2	0.760	0.627			100		400			9	04/08/12	04/10	LSC-006
S204029-09			B2L2X5	0.745	0.619			100		400			9	04/08/12	04/10	LSC-006
S204029-10			B2L2X8	0.715	0.627			100		400			9	04/08/12	04/10	LSC-006
S204029-11			B2L2Y1	0.708	0.662			100		400			10	04/08/12	04/11	LSC-006
S204029-12			B2L2Y4	0.987	0.658			100		177			9	04/08/12	04/10	LSC-007
S204029-13			B2L2Y7	0.757	0.643			100		306			9	04/08/12	04/10	LSC-007
S204029-14			Lab Control Sample	4.71	0.616			100		9				04/08/12	04/10	LSC-007
S204029-15			Method Blank	0.723	0.616			100		400				04/08/12	04/10	LSC-007
S204029-16			Duplicate (S204029-01)	0.713	0.649			100		400			7	04/08/12	04/08	LSC-006
Nominal values and limits from method				1.00	0.602					10			180			

PROCEDURES REFERENCE C14_COX_LSC
CP-251 Tritium/Carbon-14 Oxidation, rev 11

AVERAGES ± 2 SD FOR 16 SAMPLES
MDA 0.995 ± 1.99
YIELD 100 ± 0

Lab id EBRLNE
Protocol F11-092
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4719

Test H Matrix SOIL
SDG 7702
Contact N. Joseph Verville

LAB METHOD SUMMARY

TRITIUM IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4719

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Tritium	
Preparation batch 7734-134						
S204029-01			7702-001	B2L2V1	U	
S204029-02			7702-002	B2L2V4	U	
S204029-03			7702-003	B2L2V7	U	
S204029-04			7702-004	B2L2W0	U	
S204029-05			7702-005	B2L2W3	U	
S204029-06			7702-006	B2L2W6	U	
S204029-07			7702-007	B2L2W9	U	
S204029-08			7702-008	B2L2X2	U	
S204029-09			7702-009	B2L2X5	U	
S204029-10			7702-010	B2L2X8	U	
S204029-11			7702-011	B2L2Y1	U	
S204029-12			7702-012	B2L2Y4	U	
S204029-13			7702-013	B2L2Y7	U	
S204029-14			7702-014	Lab Control Sample	ok	
S204029-15			7702-015	Method Blank	U	
S204029-16			7702-016	Duplicate (S204029-01)	-	U

Nominal values and limits from method RDLs (pCi/g) 400

Lab id EBRLNE
Protocol F11-092
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/13/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4719

Test H Matrix SOIL
SDG 7702
Contact N. Joseph Verville

LAB METHOD SUMMARY

TRITIUM IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4719

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 7734-134			2σ prep error 10.0 % Reference Lab Notebook 7724 pg. 119													
S204029-01			B2L2V1	3.80	0.644			100		50			10	04/09/12	04/11	LSC-006
S204029-02			B2L2V4	3.59	0.670			100		50			10	04/09/12	04/11	LSC-006
S204029-03			B2L2V7	3.79	0.648			100		50			10	04/09/12	04/11	LSC-006
S204029-04			B2L2W0	3.90	0.622			100		50			10	04/09/12	04/11	LSC-006
S204029-05			B2L2W3	3.37	0.654			100		50			14	04/09/12	04/11	LSC-006
S204029-06			B2L2W6	3.71	0.658			100		50			14	04/09/12	04/11	LSC-006
S204029-07			B2L2W9	4.01	0.616			100		50			10	04/09/12	04/11	LSC-006
S204029-08			B2L2X2	3.78	0.627			100		50			10	04/09/12	04/11	LSC-006
S204029-09			B2L2X5	3.78	0.619			100		50			10	04/09/12	04/11	LSC-006
S204029-10			B2L2X8	4.76	0.627			100		50			10	04/09/12	04/11	LSC-006
S204029-11			B2L2Y1	3.72	0.662			100		50			10	04/09/12	04/11	LSC-006
S204029-12			B2L2Y4	3.69	0.658			100		50			10	04/09/12	04/11	LSC-006
S204029-13			B2L2Y7	3.85	0.643			100		50			10	04/09/12	04/11	LSC-006
S204029-14			Lab Control Sample	2.97	0.616			100		50				04/09/12	04/12	LSC-006
S204029-15			Method Blank	3.31	0.616			100		50				04/09/12	04/11	LSC-006
S204029-16			Duplicate (S204029-01)	3.76	0.649			100		50			10	04/09/12	04/11	LSC-006
Nominal values and limits from method				400	0.602					25			180			

PROCEDURES REFERENCE TRITIUM_COX_LSC
CP-251 Tritium/Carbon-14 Oxidation, rev 11

AVERAGES ± 2 SD MDA 3.74 ± 0.749
FOR 16 SAMPLES YIELD 100 ± 0

Lab id EBRLNE
Protocol F11-092
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/13/12

Batch QC List

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198144	198148	1	IBLANK	72403	IBLANK		Gamma Energy Analysis-general
198144	198148	2	LCS	72404	LCS		Gamma Energy Analysis-general
198144	198148	3	DUP	72405	B2KFR9(120422002DUP)	120422002	Gamma Energy Analysis-general
198144	198148	5	SAMPLE	120424001	B2L2M3		Gamma Energy Analysis-general
198144	198148	6	SAMPLE	120424002	B2L2M6		Gamma Energy Analysis-general
198144	198148	7	SAMPLE	120424003	B2L2M9		Gamma Energy Analysis-general
198144	198148	8	SAMPLE	120424004	B2L2N2		Gamma Energy Analysis-general
198144	198148	9	SAMPLE	120424005	B2L2W4		Gamma Energy Analysis-general
198144	198148	10	SAMPLE	120424006	B2L2W7		Gamma Energy Analysis-general
198144	198148	11	SAMPLE	120424007	B2L2T2		Gamma Energy Analysis-general
198144	198148	12	SAMPLE	120424008	B2L2T6		Gamma Energy Analysis-general
198160	198491	1	DUP	72433	B2L2M3(120424001DUP)	120424001	Uranium (AEA)
198160	198491	2	SAMPLE	120424001	B2L2M3		Uranium (AEA)
198160	198491	3	SAMPLE	120424002	B2L2M6		Uranium (AEA)
198160	198491	4	SAMPLE	120424003	B2L2M9		Uranium (AEA)
198160	198491	5	SAMPLE	120424004	B2L2N2		Uranium (AEA)
198160	198491	6	SAMPLE	120424005	B2L2W4		Uranium (AEA)
198160	198491	7	SAMPLE	120424006	B2L2W7		Uranium (AEA)
198160	198491	8	SAMPLE	120424007	B2L2T2		Uranium (AEA)
198160	198491	9	SAMPLE	120424008	B2L2T6		Uranium (AEA)
198160	198491	10	BLANK	72431	BLANK		Uranium (AEA)
198160	198491	11	LCS	72432	LCS		Uranium (AEA)
198160	198492	1	DUP	72433	B2L2M3(120424001DUP)	120424001	Plutonium (AEA)

Batch QC List

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198160	198492	2	SAMPLE	120424001	B2L2M3		Plutonium (AEA)
198160	198492	3	SAMPLE	120424002	B2L2M6		Plutonium (AEA)
198160	198492	4	SAMPLE	120424003	B2L2M9		Plutonium (AEA)
198160	198492	5	SAMPLE	120424004	B2L2N2		Plutonium (AEA)
198160	198492	6	SAMPLE	120424005	B2L2W4		Plutonium (AEA)
198160	198492	7	SAMPLE	120424006	B2L2W7		Plutonium (AEA)
198160	198492	8	SAMPLE	120424007	B2L2T2		Plutonium (AEA)
198160	198492	9	SAMPLE	120424008	B2L2T6		Plutonium (AEA)
198160	198492	10	BLANK	72431	BLANK		Plutonium (AEA)
198160	198492	11	LCS	72432	LCS		Plutonium (AEA)
198160	198493	1	DUP	72433	B2L2M3(120424001DUP)	120424001	Americium/Curium (AEA)
198160	198493	2	SAMPLE	120424001	B2L2M3		Americium/Curium (AEA)
198160	198493	3	SAMPLE	120424002	B2L2M6		Americium/Curium (AEA)
198160	198493	4	SAMPLE	120424003	B2L2M9		Americium/Curium (AEA)
198160	198493	5	SAMPLE	120424004	B2L2N2		Americium/Curium (AEA)
198160	198493	6	SAMPLE	120424005	B2L2W4		Americium/Curium (AEA)
198160	198493	7	SAMPLE	120424006	B2L2W7		Americium/Curium (AEA)
198160	198493	8	SAMPLE	120424007	B2L2T2		Americium/Curium (AEA)
198160	198493	9	SAMPLE	120424008	B2L2T6		Americium/Curium (AEA)
198160	198493	10	BLANK	72431	BLANK		Americium/Curium (AEA)
198160	198493	11	LCS	72432	LCS		Americium/Curium (AEA)
198161	198440	1	BLANK	72434	BLANK		Strontium 89/90 (GPC/GEA)
198161	198440	2	LCS	72435	LCS		Strontium 89/90 (GPC/GEA)

Batch QC List

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198161	198440	3	DUP	72436	B2L2M3(120424001DUP)	120424001	Strontium 89/90 (GPC/GEA)
198161	198440	4	SAMPLE	120424001	B2L2M3		Strontium 89/90 (GPC/GEA)
198161	198440	5	SAMPLE	120424002	B2L2M6		Strontium 89/90 (GPC/GEA)
198161	198440	6	SAMPLE	120424003	B2L2M9		Strontium 89/90 (GPC/GEA)
198161	198440	7	SAMPLE	120424004	B2L2N2		Strontium 89/90 (GPC/GEA)
198161	198440	8	SAMPLE	120424005	B2L2W4		Strontium 89/90 (GPC/GEA)
198161	198440	9	SAMPLE	120424006	B2L2W7		Strontium 89/90 (GPC/GEA)
198161	198440	10	SAMPLE	120424007	B2L2T2		Strontium 89/90 (GPC/GEA)
198161	198440	11	SAMPLE	120424008	B2L2T6		Strontium 89/90 (GPC/GEA)

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

QC Batch 198144 **Test** Gamma Energy Analysis-general
Associated Samples 120424001, 120424002, 120424003, 120424004, 120424005, 120424006, 120424007, 120424008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
IBLANK			**QC Sample #72403**								
Cesium-137	10045-97-3		1.2E-4	pCi/g						U	04/02/12
Cobalt-60	10198-40-0		-2.6E-3	pCi/g						U	04/02/12
Europium-152	14683-23-9		4.6E-3	pCi/g						U	04/02/12
Europium-154	15585-10-1		-2.7E-3	pCi/g						U	04/02/12
Europium-155	14391-16-3		6.7E-3	pCi/g						U	04/02/12
LCS			**QC Sample #72404**								
Cesium-137	10045-97-3		6400	pCi/sample	105.4	80 - 120					04/02/12
Cobalt-60	10198-40-0		10000	pCi/sample	104.4	80 - 120					04/02/12
DUP			**QC Sample #72405**								
			Original 120422002								
Cesium-137	10045-97-3		1.8E-3	pCi/g			24.00	30		U	04/02/12
Cobalt-60	10198-40-0		4.8E-3	pCi/g			71.40	30	*	U	04/02/12
Europium-152	14683-23-9		3.5E-3	pCi/g			-291.80	30	*	U	04/02/12
Europium-154	15585-10-1		8.5E-3	pCi/g			42.90	30	*	U	04/02/12
Europium-155	14391-16-3		0.027	pCi/g			446.20	30	*	U	04/02/12

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

QC Batch 198160 **Test** Americium/Curium (AEA)
Associated Samples 120424001, 120424002, 120424003, 120424004, 120424005, 120424006, 120424007, 120424008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #72431**								
Americium-241	14596-10-2		0.013	pCi/g						U	04/06/12
Plutonium-238	13981-16-3		1.9E-3	pCi/g						U	04/06/12
Plutonium-239/240	PU-239/240		0.015	pCi/g						X	04/06/12
Uranium-234	U-233/234		0.050	pCi/g						X	04/06/12
Uranium-235	15117-96-1		6.1E-3	pCi/g						U	04/06/12
Uranium-238	U-238		0.083	pCi/g						X	04/06/12
LCS			**QC Sample #72432**								
Americium-241	14596-10-2		24	pCi/sample	107.3	80 - 120					04/06/12
Plutonium-239/240	PU-239/240		21	pCi/sample	90.2	80 - 120					04/06/12
Uranium-234	U-233/234		34	pCi/sample	105.1	80 - 120					04/06/12
DUP			**QC Sample #72433**								
			Original 120424001								
Americium-241	14596-10-2	0.028	0.042	pCi/g			47.10	30	*	X	04/06/12
Plutonium-238	13981-16-3	7.3E-3	5.5E-3	pCi/g			22.60	30		U	04/06/12
Plutonium-239/240	PU-239/240	0.024	5.5E-3	pCi/g			120.00	30	*	U	04/06/12
Uranium-234	U-233/234	0.15	0.14	pCi/g			0.00	30			04/06/12
Uranium-235	15117-96-1	4.1E-3	8.1E-3	pCi/g			70.00	30	*	X	04/06/12
Uranium-238	U-238	0.16	0.17	pCi/g			12.50	30			04/06/12

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

QC Batch 198161 **Test** Strontium 89/90 (GPC/GEA)
Associated Samples 120424001, 120424002, 120424003, 120424004, 120424005, 120424006, 120424007, 120424008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #72434**								
Strontium-89/90	SR-RAD		-0.67	pCi/g						U	04/09/12
LCS			**QC Sample #72435**								
Strontium-89/90	SR-RAD		22	pCi/g	115.2	80 - 120					04/09/12
DUP			**QC Sample #72436**								
			Original 120424001								
Strontium-89/90	SR-RAD	0.29	0.026	pCi/g			167.30	30	*	U	04/09/12

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120424

QC Batch 198160 **Test** Uranium (AEA)
Associated Samples 120424001, 120424002, 120424003, 120424004, 120424005, 120424006, 120424007, 120424008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120424001**							
Uranium-232 Tracer	14158-29-3				82.8	25 - 105				04/06/12
Americium-243 Tracer	14993-75-0				96.9	25 - 105				04/06/12
Plutonium-242 Tracer	13982-10-0				99.5	25 - 105				04/06/12
SAMPLE			**Sample #120424002**							
Uranium-232 Tracer	14158-29-3				88.4	25 - 105				04/06/12
Americium-243 Tracer	14993-75-0				94	25 - 105				04/06/12
Plutonium-242 Tracer	13982-10-0				83.6	25 - 105				04/06/12
SAMPLE			**Sample #120424003**							
Uranium-232 Tracer	14158-29-3				92.7	25 - 105				04/06/12
Americium-243 Tracer	14993-75-0				102.3	25 - 105				04/06/12
Plutonium-242 Tracer	13982-10-0				88.8	25 - 105				04/06/12
SAMPLE			**Sample #120424004**							
Uranium-232 Tracer	14158-29-3				84.4	25 - 105				04/06/12
Americium-243 Tracer	14993-75-0				95.7	25 - 105				04/06/12
Plutonium-242 Tracer	13982-10-0				75.3	25 - 105				04/06/12
SAMPLE			**Sample #120424005**							

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Group # WSCF120424

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Uranium-232 Tracer	14158-29-3				83.8	25 - 105				04/06/12
Americium-243 Tracer	14993-75-0				86	25 - 105				04/06/12
Plutonium-242 Tracer	13982-10-0				81.1	25 - 105				04/06/12
SAMPLE			**Sample #120424006**							
Uranium-232 Tracer	14158-29-3				83.3	25 - 105				04/06/12
Americium-243 Tracer	14993-75-0				95.8	25 - 105				04/06/12
Plutonium-242 Tracer	13982-10-0				84.4	25 - 105				04/06/12
SAMPLE			**Sample #120424007**							
Uranium-232 Tracer	14158-29-3				80.4	25 - 105				04/06/12
Americium-243 Tracer	14993-75-0				92.7	25 - 105				04/06/12
Plutonium-242 Tracer	13982-10-0				86.1	25 - 105				04/06/12
SAMPLE			**Sample #120424008**							
Uranium-232 Tracer	14158-29-3				92.1	25 - 105				04/06/12
Americium-243 Tracer	14993-75-0				81.4	25 - 105				04/06/12
Plutonium-242 Tracer	13982-10-0				81.3	25 - 105				04/06/12
BLANK			**QC Sample #72431**							
Uranium-232 Tracer	14158-29-3				84	25 - 105				04/06/12
Americium-243 Tracer	14993-75-0				90.4	25 - 105				04/06/12
Plutonium-242 Tracer	13982-10-0				81	25 - 105				04/06/12
LCS			**QC Sample #72432**							
Uranium-232 Tracer	14158-29-3				70.7	25 - 105				04/06/12

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Group # WSCF120424

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Americium-243 Tracer	14993-75-0				84.4	25 - 105				04/06/12
Plutonium-242 Tracer	13982-10-0				92.1	25 - 105				04/06/12
DUP			**QC Sample #72433**							
			Original	**120424001**						
Uranium-232 Tracer	14158-29-3				85.3	25 - 105	n/a			04/06/12
Americium-243 Tracer	14993-75-0				96.3	25 - 105	n/a			04/06/12
Plutonium-242 Tracer	13982-10-0				90.4	25 - 105	n/a			04/06/12

Quality Control Report

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Group # WSCF120424

QC Batch 198161 **Test** Strontium 89/90 (GPC/GEA)
Associated Samples 120424001, 120424002, 120424003, 120424004, 120424005, 120424006, 120424007, 120424008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120424001**							
Strontium-85	13967-73-2				65.7	25 - 105				04/09/12
SAMPLE			**Sample #120424002**							
Strontium-85	13967-73-2				73	25 - 105				04/09/12
SAMPLE			**Sample #120424003**							
Strontium-85	13967-73-2				93.3	25 - 105				04/09/12
SAMPLE			**Sample #120424004**							
Strontium-85	13967-73-2				61.8	25 - 105				04/09/12
SAMPLE			**Sample #120424005**							
Strontium-85	13967-73-2				58.3	25 - 105				04/09/12
SAMPLE			**Sample #120424006**							
Strontium-85	13967-73-2				67.8	25 - 105				04/09/12
SAMPLE			**Sample #120424007**							
Strontium-85	13967-73-2				66.3	25 - 105				04/09/12

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Group # WSCF120424

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120424008**							
Strontium-85	13967-73-2				66.3	25 - 105				04/09/12
BLANK			**QC Sample #72434**							
Strontium-85	13967-73-2				91.9	25 - 105				04/09/12
LCS			**QC Sample #72435**							
Strontium-85	13967-73-2				69.7	25 - 105				04/09/12
DUP			**QC Sample #72436**							
			Original	**120424001**						
Strontium-85	13967-73-2				75.1	25 - 105	n/a			04/09/12

Batch QC List

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Group # WSCF120428

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198169	198179	1	IBLANK	72443	IBLANK		Gamma Energy Analysis-general
198169	198179	2	LCS	72444	LCS		Gamma Energy Analysis-general
198169	198179	3	DUP	72445	B2L2V8(120428001DUP)	120428001	Gamma Energy Analysis-general
198169	198179	4	SAMPLE	120428001	B2L2V8		Gamma Energy Analysis-general
198169	198179	5	SAMPLE	120428002	B2L2Y5		Gamma Energy Analysis-general
198169	198179	6	SAMPLE	120428003	B2L2N8		Gamma Energy Analysis-general
198169	198179	7	SAMPLE	120428004	B2L2W1		Gamma Energy Analysis-general
198169	198179	8	SAMPLE	120428005	B2L2P1		Gamma Energy Analysis-general
198169	198179	9	SAMPLE	120428006	B2L2Y8		Gamma Energy Analysis-general
198169	198179	10	SAMPLE	120428007	B2L2P4		Gamma Energy Analysis-general
198169	198179	11	SAMPLE	120428008	B2L2Y2		Gamma Energy Analysis-general
198169	198179	12	SAMPLE	120428009	B2L2N5		Gamma Energy Analysis-general
198170	198180	1	IBLANK	72446	IBLANK		Gamma Energy Analysis-general
198170	198180	2	LCS	72447	LCS		Gamma Energy Analysis-general
198170	198180	3	DUP	72448	B2L2X3(120428010DUP)	120428010	Gamma Energy Analysis-general
198170	198180	4	SAMPLE	120428010	B2L2X3		Gamma Energy Analysis-general
198170	198180	5	SAMPLE	120428011	B2L2T4		Gamma Energy Analysis-general
198170	198180	6	SAMPLE	120428012	B2L2V2		Gamma Energy Analysis-general
198170	198180	7	SAMPLE	120428013	B2L2T9		Gamma Energy Analysis-general
198170	198180	8	SAMPLE	120428014	B2L2X6		Gamma Energy Analysis-general
198170	198180	9	SAMPLE	120428015	B2L2V5		Gamma Energy Analysis-general
198170	198180	10	SAMPLE	120428016	B2L2X0		Gamma Energy Analysis-general
198170	198180	11	SAMPLE	120428017	B2L2P7		Gamma Energy Analysis-general

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QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198170	198180	12	SAMPLE	120428018	B2L2X9		Gamma Energy Analysis-general
198290	198594	1	BLANK	72522	BLANK		Americium/Curium (AEA)
198290	198594	2	LCS	72523	LCS		Americium/Curium (AEA)
198290	198594	3	SAMPLE	120428001	B2L2V8		Americium/Curium (AEA)
198290	198594	4	DUP	72524	B2L2V8(120428001DUP)	120428001	Americium/Curium (AEA)
198290	198594	5	SAMPLE	120428002	B2L2Y5		Americium/Curium (AEA)
198290	198594	6	SAMPLE	120428003	B2L2N8		Americium/Curium (AEA)
198290	198594	7	SAMPLE	120428004	B2L2W1		Americium/Curium (AEA)
198290	198594	8	SAMPLE	120428005	B2L2P1		Americium/Curium (AEA)
198290	198594	9	SAMPLE	120428006	B2L2Y8		Americium/Curium (AEA)
198290	198594	10	SAMPLE	120428007	B2L2P4		Americium/Curium (AEA)
198290	198596	1	DUP	72524	B2L2V8(120428001DUP)	120428001	Uranium (AEA)
198290	198596	2	SAMPLE	120428001	B2L2V8		Uranium (AEA)
198290	198596	3	SAMPLE	120428002	B2L2Y5		Uranium (AEA)
198290	198596	4	SAMPLE	120428003	B2L2N8		Uranium (AEA)
198290	198596	5	SAMPLE	120428004	B2L2W1		Uranium (AEA)
198290	198596	6	SAMPLE	120428005	B2L2P1		Uranium (AEA)
198290	198596	7	SAMPLE	120428006	B2L2Y8		Uranium (AEA)
198290	198596	8	SAMPLE	120428007	B2L2P4		Uranium (AEA)
198290	198596	9	BLANK	72522	BLANK		Uranium (AEA)
198290	198596	10	LCS	72523	LCS		Uranium (AEA)
198290	198615	1	DUP	72524	B2L2V8(120428001DUP)	120428001	Plutonium (AEA)
198290	198615	2	SAMPLE	120428001	B2L2V8		Plutonium (AEA)

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Group # WSCF120428

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198290	198615	3	SAMPLE	120428002	B2L2Y5		Plutonium (AEA)
198290	198615	4	SAMPLE	120428003	B2L2N8		Plutonium (AEA)
198290	198615	5	SAMPLE	120428004	B2L2W1		Plutonium (AEA)
198290	198615	6	SAMPLE	120428005	B2L2P1		Plutonium (AEA)
198290	198615	7	SAMPLE	120428006	B2L2Y8		Plutonium (AEA)
198290	198615	8	SAMPLE	120428007	B2L2P4		Plutonium (AEA)
198290	198615	9	BLANK	72522	BLANK		Plutonium (AEA)
198290	198615	10	LCS	72523	LCS		Plutonium (AEA)
198291	198595	1	BLANK	72525	BLANK		Americium/Curium (AEA)
198291	198595	2	LCS	72526	LCS		Americium/Curium (AEA)
198291	198595	3	SAMPLE	120428008	B2L2Y2		Americium/Curium (AEA)
198291	198595	4	DUP	72527	B2L2Y2(120428008DUP)	120428008	Americium/Curium (AEA)
198291	198595	5	SAMPLE	120428009	B2L2N5		Americium/Curium (AEA)
198291	198595	6	SAMPLE	120428010	B2L2X3		Americium/Curium (AEA)
198291	198595	7	SAMPLE	120428011	B2L2T4		Americium/Curium (AEA)
198291	198595	8	SAMPLE	120428012	B2L2V2		Americium/Curium (AEA)
198291	198595	9	SAMPLE	120428013	B2L2T9		Americium/Curium (AEA)
198291	198595	10	SAMPLE	120428014	B2L2X6		Americium/Curium (AEA)
198291	198597	1	DUP	72527	B2L2Y2(120428008DUP)	120428008	Uranium (AEA)
198291	198597	2	SAMPLE	120428008	B2L2Y2		Uranium (AEA)
198291	198597	3	SAMPLE	120428009	B2L2N5		Uranium (AEA)
198291	198597	4	SAMPLE	120428010	B2L2X3		Uranium (AEA)
198291	198597	5	SAMPLE	120428011	B2L2T4		Uranium (AEA)

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Group # WSCF120428

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198291	198597	6	SAMPLE	120428012	B2L2V2		Uranium (AEA)
198291	198597	7	SAMPLE	120428013	B2L2T9		Uranium (AEA)
198291	198597	8	SAMPLE	120428014	B2L2X6		Uranium (AEA)
198291	198597	9	BLANK	72525	BLANK		Uranium (AEA)
198291	198597	10	LCS	72526	LCS		Uranium (AEA)
198291	198616	1	DUP	72527	B2L2Y2(120428008DUP)	120428008	Plutonium (AEA)
198291	198616	2	SAMPLE	120428008	B2L2Y2		Plutonium (AEA)
198291	198616	3	SAMPLE	120428009	B2L2N5		Plutonium (AEA)
198291	198616	4	SAMPLE	120428010	B2L2X3		Plutonium (AEA)
198291	198616	5	SAMPLE	120428011	B2L2T4		Plutonium (AEA)
198291	198616	6	SAMPLE	120428012	B2L2V2		Plutonium (AEA)
198291	198616	7	SAMPLE	120428013	B2L2T9		Plutonium (AEA)
198291	198616	8	SAMPLE	120428014	B2L2X6		Plutonium (AEA)
198291	198616	9	BLANK	72525	BLANK		Plutonium (AEA)
198291	198616	10	LCS	72526	LCS		Plutonium (AEA)
198292	198617	1	DUP	72530	B2L2V5(120428015DUP)	120428015	Uranium (AEA)
198292	198617	2	SAMPLE	120428015	B2L2V5		Uranium (AEA)
198292	198617	3	SAMPLE	120428016	B2L2X0		Uranium (AEA)
198292	198617	4	SAMPLE	120428017	B2L2P7		Uranium (AEA)
198292	198617	5	SAMPLE	120428018	B2L2X9		Uranium (AEA)
198292	198617	6	BLANK	72528	BLANK		Uranium (AEA)
198292	198617	7	LCS	72529	LCS		Uranium (AEA)
198292	198623	1	DUP	72530	B2L2V5(120428015DUP)	120428015	Plutonium (AEA)

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QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198292	198623	2	SAMPLE	120428015	B2L2V5		Plutonium (AEA)
198292	198623	3	SAMPLE	120428016	B2L2X0		Plutonium (AEA)
198292	198623	4	SAMPLE	120428017	B2L2P7		Plutonium (AEA)
198292	198623	5	SAMPLE	120428018	B2L2X9		Plutonium (AEA)
198292	198623	6	BLANK	72528	BLANK		Plutonium (AEA)
198292	198623	7	LCS	72529	LCS		Plutonium (AEA)
198292	198624	1	DUP	72530	B2L2V5(120428015DUP)	120428015	Americium/Curium (AEA)
198292	198624	2	SAMPLE	120428015	B2L2V5		Americium/Curium (AEA)
198292	198624	3	SAMPLE	120428016	B2L2X0		Americium/Curium (AEA)
198292	198624	4	SAMPLE	120428017	B2L2P7		Americium/Curium (AEA)
198292	198624	5	SAMPLE	120428018	B2L2X9		Americium/Curium (AEA)
198292	198624	6	BLANK	72528	BLANK		Americium/Curium (AEA)
198292	198624	7	LCS	72529	LCS		Americium/Curium (AEA)
198294	198439	1	BLANK	72540	BLANK		Strontium 89/90 (GPC/GEA)
198294	198439	2	LCS	72541	LCS		Strontium 89/90 (GPC/GEA)
198294	198439	3	DUP	72542	B2L2V8(120428001DUP)	120428001	Strontium 89/90 (GPC/GEA)
198294	198439	4	SAMPLE	120428001	B2L2V8		Strontium 89/90 (GPC/GEA)
198294	198439	5	SAMPLE	120428002	B2L2Y5		Strontium 89/90 (GPC/GEA)
198294	198439	6	SAMPLE	120428003	B2L2N8		Strontium 89/90 (GPC/GEA)
198294	198439	7	SAMPLE	120428004	B2L2W1		Strontium 89/90 (GPC/GEA)
198294	198439	8	SAMPLE	120428005	B2L2P1		Strontium 89/90 (GPC/GEA)
198294	198439	9	SAMPLE	120428006	B2L2Y8		Strontium 89/90 (GPC/GEA)
198294	198439	10	SAMPLE	120428007	B2L2P4		Strontium 89/90 (GPC/GEA)

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Group # WSCF120428

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
198399	198692	1	BLANK	72597	BLANK		Strontium 89/90 (GPC/GEA)
198399	198692	2	LCS	72598	LCS		Strontium 89/90 (GPC/GEA)
198399	198692	3	DUP	72599	B2L2Y2(120428008DUP)	120428008	Strontium 89/90 (GPC/GEA)
198399	198692	4	SAMPLE	120428008	B2L2Y2		Strontium 89/90 (GPC/GEA)
198399	198692	5	SAMPLE	120428009	B2L2N5		Strontium 89/90 (GPC/GEA)
198399	198692	6	SAMPLE	120428010	B2L2X3		Strontium 89/90 (GPC/GEA)
198399	198692	7	SAMPLE	120428011	B2L2T4		Strontium 89/90 (GPC/GEA)
198399	198692	8	SAMPLE	120428012	B2L2V2		Strontium 89/90 (GPC/GEA)
198399	198692	9	SAMPLE	120428013	B2L2T9		Strontium 89/90 (GPC/GEA)
198399	198692	10	SAMPLE	120428014	B2L2X6		Strontium 89/90 (GPC/GEA)
198400	198438	1	BLANK	72600	BLANK		Strontium 89/90 (GPC/GEA)
198400	198438	2	LCS	72601	LCS		Strontium 89/90 (GPC/GEA)
198400	198438	3	DUP	72602	B2L2V5(120428015DUP)	120428015	Strontium 89/90 (GPC/GEA)
198400	198438	4	SAMPLE	120428015	B2L2V5		Strontium 89/90 (GPC/GEA)
198400	198438	5	SAMPLE	120428016	B2L2X0		Strontium 89/90 (GPC/GEA)
198400	198438	6	SAMPLE	120428017	B2L2P7		Strontium 89/90 (GPC/GEA)
198400	198438	7	SAMPLE	120428018	B2L2X9		Strontium 89/90 (GPC/GEA)

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Group # WSCF120428

QC Batch 198169 **Test** Gamma Energy Analysis-general
Associated Samples 120428001, 120428002, 120428003, 120428004, 120428005, 120428006, 120428007, 120428008, 120428009

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
IBLANK			**QC Sample #72443**								
Cesium-137	10045-97-3		0.013	pCi/g						U	04/03/12
Cobalt-60	10198-40-0		3.6E-3	pCi/g						U	04/03/12
Europium-152	14683-23-9		-4.5E-3	pCi/g						U	04/03/12
Europium-154	15585-10-1		0.015	pCi/g						U	04/03/12
Europium-155	14391-16-3		-6.9E-4	pCi/g						U	04/03/12
LCS			**QC Sample #72444**								
Cesium-137	10045-97-3		6400	pCi/sample	105.3	80 - 120					04/03/12
Cobalt-60	10198-40-0		10000	pCi/sample	103.8	80 - 120					04/03/12
DUP			**QC Sample #72445**								
			Original 120428001								
Cesium-137	10045-97-3	6.2	6.1	pCi/g			1.80	30			04/03/12
Cobalt-60	10198-40-0	-1.8E-3	4.4E-3	pCi/g			495.70	30	*	U	04/03/12
Europium-152	14683-23-9	-2.4E-3	-0.021	pCi/g			-158.50	30	*	U	04/03/12
Europium-154	15585-10-1	-0.041	0.016	pCi/g			-472.70	30	*	U	04/03/12
Europium-155	14391-16-3	0.022	0.040	pCi/g			55.20	30	*	U	04/03/12

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Group # WSCF120428

QC Batch 198170 **Test** Gamma Energy Analysis-general
Associated Samples 120428010, 120428011, 120428012, 120428013, 120428014, 120428015, 120428016, 120428017, 120428018

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
IBLANK			**QC Sample #72446**								
Cesium-137	10045-97-3		3.7E-3	pCi/g						U	04/03/12
Cobalt-60	10198-40-0		2.2E-3	pCi/g						U	04/03/12
Europium-152	14683-23-9		-3.5E-3	pCi/g						U	04/03/12
Europium-154	15585-10-1		4.6E-3	pCi/g						U	04/03/12
Europium-155	14391-16-3		-6.9E-3	pCi/g						U	04/03/12
LCS			**QC Sample #72447**								
Cesium-137	10045-97-3		6500	pCi/sample	107.5	80 - 120					04/03/12
Cobalt-60	10198-40-0		10000	pCi/sample	102.7	80 - 120					04/03/12
DUP			**QC Sample #72448**								
			Original 120428010								
Cesium-137	10045-97-3	0.68	0.64	pCi/g			6.70	30			04/03/12
Cobalt-60	10198-40-0	-1.2E-4	-2.7E-3	pCi/g			-183.10	30	*	U	04/03/12
Europium-152	14683-23-9	-0.023	-2.9E-5	pCi/g			-199.50	30	*	U	04/03/12
Europium-154	15585-10-1	0.013	0.020	pCi/g			48.30	30	*	U	04/03/12
Europium-155	14391-16-3	0.029	0.033	pCi/g			14.30	30		U	04/03/12

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

QC Batch 198290 **Test** Plutonium (AEA)
Associated Samples 120428001, 120428002, 120428003, 120428004, 120428005, 120428006, 120428007

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #72522**								
Plutonium-238	13981-16-3		1.9E-3	pCi/g						U	04/10/12
Americium-241	14596-10-2		9.1E-3	pCi/g						U	04/10/12
Uranium-234	U-233/234		0.027	pCi/g						X	04/09/12
Plutonium-239_240	PU-239/240		9.5E-3	pCi/g						U	04/10/12
Uranium-235	15117-96-1		5.8E-3	pCi/g						U	04/09/12
Uranium-238	U-238		0.035	pCi/g						X	04/09/12
LCS			**QC Sample #72523**								
Americium-241	14596-10-2		23	pCi/sample	103.5	80 - 120					04/10/12
Uranium-234	U-233/234		34	pCi/sample	105.1	80 - 120					04/09/12
Plutonium-239_240	PU-239/240		23	pCi/sample	98.1	80 - 120					04/10/12
DUP			**QC Sample #72524**								
			Original 120428001								
Americium-241	14596-10-2	0.43	0.13	pCi/g			101.90	30	*	X	04/10/12
Plutonium-238	13981-16-3	0.061	0.040	pCi/g			31.60	30	*	X	04/10/12
Plutonium-239_240	PU-239/240	0.33	0.14	pCi/g			75.60	30	*	X	04/10/12
Uranium-234	U-233/234	0.15	0.15	pCi/g			6.90	30			04/09/12
Uranium-235	15117-96-1	0.015	2.3E-7	pCi/g			200.00	30	*	U	04/09/12
Uranium-238	U-238	0.15	0.17	pCi/g			19.40	30			04/09/12

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

QC Batch 198291 **Test** Americium/Curium (AEA)
Associated Samples 120428008, 120428009, 120428010, 120428011, 120428012, 120428013, 120428014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #72525**								
Americium-241	14596-10-2		0.026	pCi/g						X	04/11/12
Plutonium-238	13981-16-3		-2.7E-3	pCi/g						U	04/10/12
Uranium-234	U-233/234		0.037	pCi/g						X	04/09/12
Plutonium-239_240	PU-239/240		0.011	pCi/g						U	04/10/12
Uranium-235	15117-96-1		0.0060	pCi/g						U	04/09/12
Uranium-238	U-238		0.039	pCi/g						X	04/09/12
LCS			**QC Sample #72526**								
Americium-241	14596-10-2		23	pCi/sample	101.6	80 - 120					04/11/12
Plutonium-239_240	PU-239/240		23	pCi/sample	99.9	80 - 120					04/10/12
Uranium-234	U-233/234		37	pCi/sample	112	80 - 120					04/09/12
DUP			**QC Sample #72527**								
			Original 120428008								
Plutonium-238	13981-16-3	0.036	0.026	pCi/g			26.70	30			04/10/12
Americium-241	14596-10-2	0.17	0.13	pCi/g			26.70	30			04/11/12
Uranium-234	U-233/234	0.070	0.092	pCi/g			31.40	30	*	X	04/09/12
Plutonium-239_240	PU-239/240	0.20	0.15	pCi/g			23.50	30			04/10/12
Uranium-235	15117-96-1	0.011	0.010	pCi/g			0.00	30		U	04/09/12
Uranium-238	U-238	0.12	0.12	pCi/g			8.70	30			04/09/12

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

QC Batch 198292
Associated Samples 120428015, 120428016, 120428017, 120428018

Test Plutonium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #72528**								
Plutonium-238	13981-16-3		0.0020	pCi/g						U	04/11/12
Americium-241	14596-10-2		0.019	pCi/g						U	04/11/12
Plutonium-239_240	PU-239/240		0.014	pCi/g						U	04/11/12
Uranium-234	U-233/234		0.032	pCi/g						X	04/12/12
Uranium-235	15117-96-1		0.032	pCi/g						X	04/12/12
Uranium-238	U-238		0.037	pCi/g						X	04/12/12
LCS			**QC Sample #72529**								
Americium-241	14596-10-2		21	pCi/sample	95.3	80 - 120					04/11/12
Plutonium-239_240	PU-239/240		24	pCi/sample	102.3	80 - 120					04/11/12
Uranium-234	U-233/234		35	pCi/sample	107.5	80 - 120					04/10/12
DUP			**QC Sample #72530**								
			Original 120428015								
Americium-241	14596-10-2	0.040	0.079	pCi/g			70.10	30	*	X	04/11/12
Plutonium-238	13981-16-3	6.4E-3	8.9E-3	pCi/g			38.90	30	*	U	04/11/12
Uranium-234	U-233/234	0.15	0.11	pCi/g			24.00	30			04/10/12
Plutonium-239_240	PU-239/240	0.041	0.040	pCi/g			5.10	30			04/11/12
Uranium-235	15117-96-1	0.015	7.6E-3	pCi/g			59.30	30	*	X	04/10/12
Uranium-238	U-238	0.14	0.11	pCi/g			16.70	30			04/10/12

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

QC Batch 198294 **Test** Strontium 89/90 (GPC/GEA)
Associated Samples 120428001, 120428002, 120428003, 120428004, 120428005, 120428006, 120428007

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #72540**								
Strontium-89_90	SR-RAD		-0.30	pCi/g						U	04/12/12
LCS			**QC Sample #72541**								
Strontium-89_90	SR-RAD		20	pCi/g	98.9	80 - 120					04/12/12
DUP			**QC Sample #72542**								
			Original 120428001								
Strontium-89_90	SR-RAD	0.99	0.64	pCi/g			43.20	30	*	X	04/12/12

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

QC Batch 198399 **Test** Strontium 89/90 (GPC/GEA)
Associated Samples 120428008, 120428009, 120428010, 120428011, 120428012, 120428013, 120428014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #72597**							
Strontium-89_90	SR-RAD		0.23	pCi/g					U	04/16/12
LCS			**QC Sample #72598**							
Strontium-89_90	SR-RAD		19	pCi/g	92.9	80 - 120				04/16/12
DUP			**QC Sample #72599**							
			Original 120428008							
Strontium-89_90	SR-RAD	0.76	0.65	pCi/g			14.90	30		04/16/12

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

QC Batch 198400
Associated Samples 120428015, 120428016, 120428017, 120428018

Test Strontium 89/90 (GPC/GEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #72600**								
Strontium-89_90	SR-RAD		-0.38	pCi/g						U	04/12/12
LCS			**QC Sample #72601**								
Strontium-89_90	SR-RAD		23	pCi/g	112	80 - 120					04/12/12
DUP			**QC Sample #72602**								
			Original 120428015								
Strontium-89_90	SR-RAD	-0.030	0.41	pCi/g			231.80	30	*	U	04/12/12

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

QC Batch 198290 **Test** Uranium (AEA)
Associated Samples 120428001, 120428002, 120428003, 120428004, 120428005, 120428006, 120428007

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120428001**							
Uranium-232 Tracer	14158-29-3				93.7	25 - 105				04/09/12
Americium-243 Tracer	14993-75-0				93.9	25 - 105				04/10/12
Plutonium-242 Tracer	13982-10-0				65.1	25 - 105				04/10/12
SAMPLE			**Sample #120428002**							
Uranium-232 Tracer	14158-29-3				81.9	25 - 105				04/09/12
Americium-243 Tracer	14993-75-0				88	25 - 105				04/10/12
Plutonium-242 Tracer	13982-10-0				77.8	25 - 105				04/10/12
SAMPLE			**Sample #120428003**							
Uranium-232 Tracer	14158-29-3				81.9	25 - 105				04/09/12
Americium-243 Tracer	14993-75-0				88.2	25 - 105				04/10/12
Plutonium-242 Tracer	13982-10-0				72.9	25 - 105				04/10/12
SAMPLE			**Sample #120428004**							
Uranium-232 Tracer	14158-29-3				86.3	25 - 105				04/09/12
Americium-243 Tracer	14993-75-0				106.4	25 - 105			X	04/10/12
Plutonium-242 Tracer	13982-10-0				44.2	25 - 105				04/10/12
SAMPLE			**Sample #120428005**							

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Group # WSCF120428

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Uranium-232 Tracer	14158-29-3				83	25 - 105				04/09/12
Americium-243 Tracer	14993-75-0				88.7	25 - 105				04/10/12
Plutonium-242 Tracer	13982-10-0				66.1	25 - 105				04/10/12
SAMPLE			**Sample #120428006**							
Uranium-232 Tracer	14158-29-3				79.2	25 - 105				04/09/12
Americium-243 Tracer	14993-75-0				86.4	25 - 105				04/10/12
Plutonium-242 Tracer	13982-10-0				73.9	25 - 105				04/10/12
SAMPLE			**Sample #120428007**							
Uranium-232 Tracer	14158-29-3				83.7	25 - 105				04/09/12
Americium-243 Tracer	14993-75-0				93.9	25 - 105				04/10/12
Plutonium-242 Tracer	13982-10-0				56.7	25 - 105				04/10/12
BLANK			**QC Sample #72522**							
Uranium-232 Tracer	14158-29-3				91.6	25 - 105				04/09/12
Americium-243 Tracer	14993-75-0				87.4	25 - 105				04/10/12
Plutonium-242 Tracer	13982-10-0				85.8	25 - 105				04/10/12
LCS			**QC Sample #72523**							
Uranium-232 Tracer	14158-29-3				62.4	25 - 105				04/09/12
Americium-243 Tracer	14993-75-0				95.1	25 - 105				04/10/12
Plutonium-242 Tracer	13982-10-0				76	25 - 105				04/10/12
DUP			**QC Sample #72524**							
			Original 120428001							
Uranium-232 Tracer	14158-29-3				78.9	25 - 105	n/a			04/09/12

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Group # WSCF120428

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Americium-243 Tracer	14993-75-0				95.2	25 - 105	n/a			04/10/12
Plutonium-242 Tracer	13982-10-0				62	25 - 105	n/a			04/10/12

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

QC Batch 198291 **Test** Uranium (AEA)
Associated Samples 120428008, 120428009, 120428010, 120428011, 120428012, 120428013, 120428014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120428008**							
Uranium-232 Tracer	14158-29-3				87.5	25 - 105				04/09/12
Americium-243 Tracer	14993-75-0				103.2	25 - 105				04/11/12
Plutonium-242 Tracer	13982-10-0				79.8	25 - 105				04/10/12
SAMPLE			**Sample #120428009**							
Uranium-232 Tracer	14158-29-3				78.9	25 - 105				04/09/12
Americium-243 Tracer	14993-75-0				81.7	25 - 105				04/11/12
Plutonium-242 Tracer	13982-10-0				65.2	25 - 105				04/10/12
SAMPLE			**Sample #120428010**							
Uranium-232 Tracer	14158-29-3				91.1	25 - 105				04/09/12
Americium-243 Tracer	14993-75-0				104.4	25 - 105				04/11/12
Plutonium-242 Tracer	13982-10-0				55.6	25 - 105				04/10/12
SAMPLE			**Sample #120428011**							
Uranium-232 Tracer	14158-29-3				91.1	25 - 105				04/09/12
Americium-243 Tracer	14993-75-0				87.4	25 - 105				04/11/12
Plutonium-242 Tracer	13982-10-0				83.7	25 - 105				04/10/12
SAMPLE			**Sample #120428012**							

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Attention Scot Fitzgerald
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Group # WSCF120428

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Uranium-232 Tracer	14158-29-3				89.2	25 - 105				04/09/12
Americium-243 Tracer	14993-75-0				86.2	25 - 105				04/11/12
Plutonium-242 Tracer	13982-10-0				71.1	25 - 105				04/10/12
SAMPLE			**Sample #120428013**							
Uranium-232 Tracer	14158-29-3				87.7	25 - 105				04/09/12
Americium-243 Tracer	14993-75-0				83.7	25 - 105				04/11/12
Plutonium-242 Tracer	13982-10-0				77.1	25 - 105				04/10/12
SAMPLE			**Sample #120428014**							
Uranium-232 Tracer	14158-29-3				93	25 - 105				04/09/12
Americium-243 Tracer	14993-75-0				90.2	25 - 105				04/11/12
Plutonium-242 Tracer	13982-10-0				70.6	25 - 105				04/11/12
BLANK			**QC Sample #72525**							
Uranium-232 Tracer	14158-29-3				86.6	25 - 105				04/09/12
Americium-243 Tracer	14993-75-0				68.1	25 - 105				04/11/12
Plutonium-242 Tracer	13982-10-0				58.3	25 - 105				04/10/12
LCS			**QC Sample #72526**							
Uranium-232 Tracer	14158-29-3				64.4	25 - 105				04/09/12
Americium-243 Tracer	14993-75-0				89	25 - 105				04/11/12
Plutonium-242 Tracer	13982-10-0				78.7	25 - 105				04/10/12
DUP			**QC Sample #72527**							
			Original	**120428008**						
Uranium-232 Tracer	14158-29-3				90.9	25 - 105	n/a			04/09/12

Quality Control Report

Attention Scot Fitzgerald
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Group # WSCF120428

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Americium-243 Tracer	14993-75-0				88.6	25 - 105	n/a			04/11/12
Plutonium-242 Tracer	13982-10-0				81.3	25 - 105	n/a			04/10/12

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

QC Batch 198292
Associated Samples 120428015, 120428016, 120428017, 120428018

Test Uranium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120428015**							
Uranium-232 Tracer	14158-29-3				86.2	25 - 105				04/10/12
Americium-243 Tracer	14993-75-0				90.2	25 - 105				04/11/12
Plutonium-242 Tracer	13982-10-0				86.6	25 - 105				04/11/12
SAMPLE			**Sample #120428016**							
Uranium-232 Tracer	14158-29-3				82.4	25 - 105				04/10/12
Americium-243 Tracer	14993-75-0				69.1	25 - 105				04/11/12
Plutonium-242 Tracer	13982-10-0				45.7	25 - 105				04/11/12
SAMPLE			**Sample #120428017**							
Uranium-232 Tracer	14158-29-3				82.1	25 - 105				04/10/12
Americium-243 Tracer	14993-75-0				83.5	25 - 105				04/11/12
Plutonium-242 Tracer	13982-10-0				82.7	25 - 105				04/11/12
SAMPLE			**Sample #120428018**							
Uranium-232 Tracer	14158-29-3				78.8	25 - 105				04/11/12
Americium-243 Tracer	14993-75-0				81.3	25 - 105				04/11/12
Plutonium-242 Tracer	13982-10-0				74.9	25 - 105				04/11/12
BLANK			**QC Sample #72528**							

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Group # WSCF120428

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Uranium-232 Tracer	14158-29-3				89.1	25 - 105				04/12/12
Americium-243 Tracer	14993-75-0				66	25 - 105				04/11/12
Plutonium-242 Tracer	13982-10-0				80.7	25 - 105				04/11/12
LCS			**QC Sample #72529**							
Uranium-232 Tracer	14158-29-3				63.7	25 - 105				04/10/12
Americium-243 Tracer	14993-75-0				79.5	25 - 105				04/11/12
Plutonium-242 Tracer	13982-10-0				78.5	25 - 105				04/11/12
DUP			**QC Sample #72530**							
			Original	**120428015**						
Uranium-232 Tracer	14158-29-3				92.8	25 - 105	n/a			04/10/12
Americium-243 Tracer	14993-75-0				72.3	25 - 105	n/a			04/11/12
Plutonium-242 Tracer	13982-10-0				72.8	25 - 105	n/a			04/11/12

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

QC Batch 198294 **Test** Strontium 89/90 (GPC/GEA)
Associated Samples 120428001, 120428002, 120428003, 120428004, 120428005, 120428006, 120428007

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120428001**							
Strontium-85	13967-73-2				73	25 - 105				04/12/12
SAMPLE			**Sample #120428002**							
Strontium-85	13967-73-2				70.3	25 - 105				04/12/12
SAMPLE			**Sample #120428003**							
Strontium-85	13967-73-2				87.1	25 - 105				04/12/12
SAMPLE			**Sample #120428004**							
Strontium-85	13967-73-2				85.6	25 - 105				04/12/12
SAMPLE			**Sample #120428005**							
Strontium-85	13967-73-2				70.6	25 - 105				04/12/12
SAMPLE			**Sample #120428006**							
Strontium-85	13967-73-2				71.8	25 - 105				04/12/12
SAMPLE			**Sample #120428007**							
Strontium-85	13967-73-2				69	25 - 105				04/12/12

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Group # WSCF120428

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #72540**							
Strontium-85	13967-73-2				90.3	25 - 105				04/12/12
LCS			**QC Sample #72541**							
Strontium-85	13967-73-2				87.1	25 - 105				04/12/12
DUP			**QC Sample #72542**							
			Original 120428001							
Strontium-85	13967-73-2				78.1	25 - 105	n/a			04/12/12

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

QC Batch 198399 **Test** Strontium 89/90 (GPC/GEA)
Associated Samples 120428008, 120428009, 120428010, 120428011, 120428012, 120428013, 120428014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120428008**							
Strontium-85	13967-73-2				86.8	25 - 105				04/16/12
SAMPLE			**Sample #120428009**							
Strontium-85	13967-73-2				76	25 - 105				04/16/12
SAMPLE			**Sample #120428010**							
Strontium-85	13967-73-2				57.9	25 - 105				04/16/12
SAMPLE			**Sample #120428011**							
Strontium-85	13967-73-2				83.5	25 - 105				04/16/12
SAMPLE			**Sample #120428012**							
Strontium-85	13967-73-2				86.8	25 - 105				04/16/12
SAMPLE			**Sample #120428013**							
Strontium-85	13967-73-2				78.5	25 - 105				04/16/12
SAMPLE			**Sample #120428014**							
Strontium-85	13967-73-2				79.3	25 - 105				04/16/12

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Attention Scot Fitzgerald
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Group # WSCF120428

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #72597**							
Strontium-85	13967-73-2				60.3	25 - 105				04/16/12
LCS			**QC Sample #72598**							
Strontium-85	13967-73-2				79.3	25 - 105				04/16/12
DUP			**QC Sample #72599**							
			Original 120428008							
Strontium-85	13967-73-2				76	25 - 105	n/a			04/16/12

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120428

QC Batch 198400
Associated Samples 120428015, 120428016, 120428017, 120428018

Test Strontium 89/90 (GPC/GEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120428015**							
Strontium-85	13967-73-2				79.2	25 - 105				04/12/12
SAMPLE			**Sample #120428016**							
Strontium-85	13967-73-2				61.5	25 - 105				04/12/12
SAMPLE			**Sample #120428017**							
Strontium-85	13967-73-2				67.9	25 - 105				04/12/12
SAMPLE			**Sample #120428018**							
Strontium-85	13967-73-2				65.4	25 - 105				04/12/12
BLANK			**QC Sample #72600**							
Strontium-85	13967-73-2				88.1	25 - 105				04/12/12
LCS			**QC Sample #72601**							
Strontium-85	13967-73-2				76.3	25 - 105				04/12/12
DUP			**QC Sample #72602**							
			Original 120428015							
Strontium-85	13967-73-2				70.8	25 - 105	n/a			04/12/12