# **WSCF Laboratory**

PO Box 650 S3-30 Richland, WA 99352



January 15, 2014

Scot Fitzgerald CH2M-HILL PRC PO Box 1600 Richland, WA 99352

Dear Scot Fitzgerald,

#### FINAL RESULT FOR SAMPLE DELIVERY GROUP WSCF131605

Reference: (1) SOW, Mod 2, #36587, Release 3

(2) MSC-SD-CD-QAPP-017, current version, Waste Sampling & Characterization Facility Quality Assurance Program Plan

This letter contains the following information for sample delivery group WSCF131605

- \* Cover Sheet (Attachment 1)
- \* Narrative (Attachment 2)
- \* Analytical Results (Attachment 3)
- \* Sample Receipt Information (Attachment 4)

Very truly yours,

Electronically signed by Joseph Hale For Lab Manager, Dan T. Smith WSCF Analytical Lab (509) 373-4804

Attachments 4

CC: w/Attachments

File/LB

# **ATTACHMENT 1**

## **COVER SHEET**

Consisting of 2 pages Including cover page

### **WSCF SAF Number Cross Reference**

Group # WSCF131605

Data Deliverable Date 01/15/14

SAF#	Sample ID	Sample #	Matrix	Sampled	Received
F13-051	B2RW98	131605001	WATER	12/31/13	12/31/13
F13-051	B2RW99	131605002	WATER	12/31/13	12/31/13

# **ATTACHMENT 2**

# **NARRATIVE**

Consisting of 3 pages Including cover page

Attachment 2 Narrative WSCF131605

### 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), to Contract 39818, Revision 4, "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, C, D, J and U) 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.
- C Analyte was detected in the blank and was evaluated. Affected sample results in the batch were C flagged (applies to inorganic and wet chemical analyses).
- 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.
- B (organic analyses) Analyte was detected in the blank and was evaluated. Affected sample results in the batch were B flagged.
- 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.
- o LCS recovery outside established laboratory acceptance limits.

#### Analytical Methodology for Requested Analyses

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

Attachment 2 Narrative WSCF131605

### Inorganic Comments

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):

- Potassium and Sodium were detected in the Blank and evaluated.
- All other applicable QC controls are within the established limits.

#### Radiochemistry Comments

Rad Chem – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike (Matrix Spikes apply only to Tritium), 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.

#### Strontium-89/90:

All applicable QC controls are within the established limits.

#### Tritium:

- 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.

# **ATTACHMENT 3**

### **ANALYTICAL RESULTS**

Consisting of 14 pages Including cover page

#### **WSCF ANALYTICAL RESULTS REPORT**

For

CH2M Hill Plateau Remediation PO Box 1600 Richland, WA 99352

Attention: Scot Fitzgerald

Contract # MOA-FH-CHPRC-2008

Group # WSCF131605
Report Date January 15, 2014

Analytical: Electronically signed by Joseph Hale

Client Services: Electronically signed by Heather Medley

Solid samples results that have a 'Percent Solid' test are reported on a "dry weight basis", except results of TCLP, Percent Solid, and Total Activity. If no `Percent Solid' test is reported then the results are reported on an "as received" basis.

This information is intended for the use of the addressee only. If the reader of this report is not the intended recipient or is not authorized by the recipient to receive the report, you are hereby notified that any dissemination, distribution or copying of this report is strictly prohibited. If you have received this report in error, please notify WSCF Laboratory immediately by telephone at (509) 373-7005. Information designation of this report is the responsibility of the customer.

# Batch QC List -

Attention Scot Fitzgerald Department Inorganic

Group #

WSCF131605

QC Batch	Analytical Batch	S#	Туре	Sample #	Client Sample#	Original	Test
225811	226131	5	BLANK	103357	BLANK		ICP-6010 - All possible metals
225811	226131	7	LCS	103359	LCS		ICP-6010 - All possible metals
225811	226131	9	MS	103360	B2TLL6(131526007MS)	131526007	ICP-6010 - All possible metals
225811	226131	10	MSD	103361	B2TLL6(131526007MSD)	131526007	ICP-6010 - All possible metals
225811	226131	17	SAMPLE	131605001	B2RW98		ICP-6010 - All possible metals

# Batch QC List -

**Attention** Scot Fitzgerald **Department** Radiochemistry

Group #

WSCF131605

QC Batch	Analytical Batch	S#	Туре	Sample #	Client Sample#	Original	Test
225511	226300	1	BLANK	103252	BLANK		Tritium by LSC
225511	226300	2	LCS	103253	LCS		Tritium by LSC
225511	226300	3	SAMPLE	131605002	B2RW99		Tritium by LSC
225511	226300	4	DUP	103254	B2RW99(131605002DI	JP 131605002	Tritium by LSC
225511	226300	5	MSPK	103255	B2RW99(131605002M	SP	Tritium by LSC
225603	226032	1	BLANK	103279	BLANK		Strontium 89/90 (GPC/GEA)
225603	226032	2	LCS	103280	LCS		Strontium 89/90 (GPC/GEA)
225603	226032	3	DUP	103281	B2RW99(131605002DI	JP 131605002	Strontium 89/90 (GPC/GEA)
225603	226032	4	SAMPLE	131605002	B2RW99		Strontium 89/90 (GPC/GEA)

### **Method Reference**

Attention Scot Fitzgerald

**Department** Inorganic

Group # WSCF131605

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory, industry methods or HEIS methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

**LA-505-411** Elemental Analysis by ICP Atomic Emission Spectroscopy (ICP AES)

EPA SW-846 6010C Inductively Coupled Plasma-Atomic Emmision

Spectrometry

HEIS 6010\_METALS\_ICP Inductively Coupled Plasma-Atomic

**Emmision Spectrometry** 

Note: A complete list of WSCF analytical procedures and reference regulatory or industry methods is available online at http://www7.rl.gov/rapidweb/AS-DOL/index.cfm

### **Method Reference**

Attention Scot Fitzgerald Department Radiochemistry Group # WSCF131605

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory, industry methods or HEIS methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-218-413 Tritium By Ion Removal Using Eichrom Resin Columns (Prep)

N/A PREP METHOD

LA-220-406 Strontium-89 and 90 in Aqueous Samples by SR-SPEC Separation

HEIS SRTOT\_SEP\_PRECIP\_GPC Strontium 89/90, by Sr-Spec Sep.

LA-508-421 Operation of the Tri-Carb Model 2500TR Liquid Scintillation Analyzer

HEIS ALPHA\_LSC A/B Liquid Scintillation
HEIS BETA\_LSC A/B Liquid Scintillation

HEIS TC99\_3MDSK\_LSC TC99 by Liquid Scintillation

HEIS TRITIUM\_EIE\_LSC Tritium, by Eichrome ion exchange, LSC

Note: A complete list of WSCF analytical procedures and reference regulatory or industry methods is available online at http://www7.rl.gov/rapidweb/AS-DOL/index.cfm

# **WSCF Analytical Results Report**

JANUARY 15, 2014

Attention Scot Fitzgerald Department Inorganic

Group # WSCF131605

 Sample #
 131605001

 SAF#
 F13-051

 Sample ID
 B2RW98

 Matrix
 WATER

 Sampled
 12/31/13

 Received
 12/31/13

Test Performed	CAS#	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPAES Prep (W)										01/08/14
ICP-6010 - All possi	ble metals									
Iron	7439-89-6	LA-505-411	U	<40		ug/L	1	40	50	01/09/14
Magnesium	7439-95-4	LA-505-411		7280		ug/L	1	60	750	01/09/14
Manganese	7439-96-5	LA-505-411		119		ug/L	1	4.0	5.0	01/09/14
Potassium	7440-09-7	LA-505-411	С	5640		ug/L	1	250	4000	01/09/14
Sodium	7440-23-5	LA-505-411		8630		ug/L	1	100	500	01/09/14
Chromium	7440-47-3	LA-505-411		17.1		ug/L	1	5.0	10	01/09/14
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	01/09/14
Calcium	7440-70-2	LA-505-411		27400		ug/L	1	50	1000	01/09/14

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 dilution 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)

o - LCS recovery outside established laboratory acceptance limits.

o - LCS recovery outside established laboratory acceptance limits.

# **WSCF Analytical Results Report**

JANUARY 15 2014

Scot Fitzgerald Attention **Department** Radiochemistry

B2RW99

Group #

WSCF131605

Sample # 131605002 SAF# F13-051

Sample ID

Matrix

WATER

Sampled

12/31/13

Received 12/31/13

Test Performed	CAS#	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium 89/90 WA	TER/LIQUID PRE	P								01/07/14
Strontium 89/90 (GI	PC/GEA)									
Strontium-89_90	SR-RAD	LA-220-406	U	0.20	.72	pCi/L	1	1.2		01/10/14
Tritium by LSC EIC	HROM WA/LIQ PF	REP								01/07/14
Tritium by LSC										
Tritium	10028-17-8	LA-508-421	U	250	170	pCi/L	1	260		01/14/14

MDL = Minimum Detection Limit

B - Analyte was detected in both the BLANK and SAMPLE

RQ = Result Qualifier

U - Analyzed for but not detected above limiting criteria. N - Spike Recovery is Outside Control Limits.

TP Err = Total Propagated Error DF = Dilution Factor

X,Y or Z - See comment detail and/or narrative.

+ - Indicates more than nine qualifier

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

**Attention** Scot Fitzgerald **Department** Radiochemistry

Group #

WSCF131605

**Analytical Batch** 

226032 (QC Batch: 225603)

Test

Strontium 89/90 (GPC/GEA)

**Associated Samples** 

131605002

Analyte	CAS#	Origina Found	I QC Found	Units	% Rec	ov Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			QC Sa	mple #103279							
Strontium-89_90	SR-RAD		0.47 <b>QC Sa</b>	pCi/L <b>mple #103280</b>						U	01/10/14
Strontium-89_90 <b>DUP</b>	SR-RAD		90 QC Sa Origina	pCi/L mple #103281 al 131605002		80 - 120					01/10/14
Strontium-89_90	SR-RAD	0.20	-0.22	pCi/L			-4326	.3020	*	U	01/10/14

<sup>\* -</sup> QC result out of range

n/a - Not Applicable

Attention Scot Fitzgerald Department Inorganic

Group #

WSCF131605

Analytical Batch 226131 (QC Batch: 225811)

Test

ICP-6010 - All possible metals

**Associated Samples** 131605001

Analyte	CAS#	Original Found QC F	ound Ur	its <sup>c</sup>	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			QC Sample	#103357						
Iron	7439-89-6	<40	ug	/L					U	01/09/14
Magnesium	7439-95-4	<60	ug	/L					U	01/09/14
Manganese	7439-96-5	<4.0	ug						U	01/09/14
Potassium	7440-09-7	382	ug	/L					В	01/09/14
Sodium	7440-23-5	221	ug	/L					В	01/09/14
Chromium	7440-47-3	<5.0	ug	/L					U	01/09/14
Cobalt	7440-48-4	<4.0	ug	/L					U	01/09/14
Calcium	7440-70-2	<50	ug	/L					U	01/09/14
LCS		(	QC Sample	#103359						
Iron	7439-89-6	1080	ug	/L	108	30 - 120				01/09/14
Magnesium	7439-95-4	1040	0 ug	/L .	103.9	30 - 120				01/09/14
Manganese	7439-96-5	1040	ug	/L	103.9	30 - 120				01/09/14
Potassium	7440-09-7	1120	) ug	/L	112	30 - 120				01/09/14
Sodium	7440-23-5	1070	0 ug	/L	106.9	30 - 120				01/09/14
Chromium	7440-47-3	1020	ug	/L	102.4	30 - 120				01/09/14
Cobalt	7440-48-4	1020	ug	/L ·	101.5	30 - 120				01/09/14

<sup>\* -</sup> QC result out of range

n/a - Not Applicable

Attention Scot Fitzgerald Department Inorganic

Group #

WSCF131605

Analyte	CAS#	Original	QC Found	Units	% Reco	ov Limits	RPD	RPD Limit	RQ	Analyzed
Allalyte	UAU #	Found	QC I Oullu	Units	/0 IXCC	V Limits	INI D		11.04	Allalyzeu
Calcium	7440-70-2		21000	ug/L	104.8	80 - 120				01/09/14
MS			QC Sar	nple #10336	60					
			Origina	ıl 1315260	07					
Iron	7439-89-6		1020	ug/L	102.3	75 - 125				01/09/14
Magnesium	7439-95-4		10200	ug/L	102.5	75 - 125				01/09/14
Manganese	7439-96-5		1010	ug/L	101.3	75 - 125				01/09/14
Potassium	7440-09-7		10700	ug/L	106.7	75 - 125				01/09/14
Sodium	7440-23-5		10500	ug/L	104.9	75 - 125				01/09/14
Chromium	7440-47-3		1000	ug/L	100	75 - 125				01/09/14
Cobalt	7440-48-4		979	ug/L	97.9	75 - 125				01/09/14
Calcium	7440-70-2		19000	ug/L	95	75 - 125				01/09/14
MSD			QC Sar	nple #10336	61					
			Origina	ıl 1315260	07			Pair	ed 103360	
Iron	7439-89-6		1000	ug/L	100	75 - 125	2.30	20		01/09/14
Magnesium	7439-95-4		10000	ug/L	100.4	75 - 125	0.70	20		01/09/14
Manganese	7439-96-5		990	ug/L	99	75 - 125	2.30	20		01/09/14
Potassium	7440-09-7		10200	ug/L	102.1	75 - 125	2.40	20		01/09/14
Sodium	7440-23-5		9750	ug/L	97.5	75 - 125	2.70	20		01/09/14
Chromium	7440-47-3		977	ug/L	97.7	75 - 125	2.40	20		01/09/14
Cobalt	7440-48-4		951	ug/L	95.1	75 - 125	3.00	20		01/09/14
Calcium	7440-70-2		19800	ug/L	99.1	75 - 125	0.90	20		01/09/14

<sup>\* -</sup> QC result out of range

n/a - Not Applicable

**Attention** Scot Fitzgerald **Department** Radiochemistry

Group #

WSCF131605

**Analytical Batch** 

226300 (QC Batch: 225511)

Test

Tritium by LSC

**Associated Samples** 131605002

Analyte	CAS#	Original Found	QC Found	Units	% Reco	ov Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			QC Sa	mple #103252	2						
Tritium LCS	10028-17-8		59 QC Sa	pCi/L <b>mple #10325</b> :	3					U	01/14/14
Tritium <b>DUP</b>	10028-17-8		3200 QC Sa Origina	pCi/L <b>mple #10325</b> 4 al <b>1316050</b> 0		80 - 120					01/14/14
Tritium MSPK	10028-17-8	250	370 QC Sa	pCi/L <b>mple #10325</b> !	5		39.50	20	*	X	01/14/14
Tritium	10028-17-8		19000	pCi/L	93.7	75 - 125					01/14/14

<sup>\* -</sup> QC result out of range

n/a - Not Applicable

**Attention** Scot Fitzgerald **Department** Radiochemistry

Group #

WSCF131605

Analytical Batch

226032 (QC Batch: 225603)

Test

Strontium 89/90 (GPC/GEA)

**Associated Samples** 131605002

Analyte	CAS#	Original Found	QC Found	Units	% Reco	ov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			QC Sar	mple #10327	<b>'</b> 9					
Strontium Nitrate	10042-76-9		QC Sar	mg <b>nple #1032</b> 8	84.3 <b>80</b>	25 - 105				01/10/14
Strontium Nitrate DUP	10042-76-9			mg nple #10328 II 1316050		25 - 105				01/10/14
Strontium Nitrate SAMPLE	10042-76-9	9.3	•	mg <b>#1316050</b> 0	87.6	25 - 105	n/a			01/10/14
Strontium Nitrate	10042-76-9			mg	76.9	25 - 105				01/10/14

<sup>\* -</sup> QC result out of range

n/a - Not Applicable

Attention: Scot Fitzgerald WSCF131605

**Quality Control Comments** 

**Department** Radiochemistry

103254 B2RW99(131605002DUP)

Analyte Tritium - Tritium by LSC

[1] The duplicate is outside of default RPD limits. RPD limit does not apply to results less than 5X the Minimum Detectable Concentration.

### ATTACHMENT4

### **SAMPLE RECEIPT**

Consisting of 4 pages Including cover page

Waste Sampling and Characterization Facility P.O. Box 650 S3-30, Richland WA 99352 Phone: (509) 373-7005/FAX: (509) 372-0456

# ACKNOWLEDGEMENT OF SAMPLES RECEIVED

 WSCF Laboratory
 Customer Code:
 CHPRC

 PO Box 650 S3-30
 CA CN:
 404401

 Richland, WA 99352
 Work Order #:
 131605

 Customer Work ID:
 F13-051-199

ATTN: Scot Fitzgerald Due Date: 01/15/2014

The following samples were received from you on 12/31/2013 11:30:00 AM. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact WSCF Client Services. Thank you for using Waste Sampling and Characterization Facility.

Sample #	Sample ID	Matrix	Collected	Received
131605001	B2RW98	WATER	12/31/2013 10:40	12/31/2013 11:30
Procedure		Compound List		
ICP-6010 - All possi	ble metals	Fe,Mg,Mn,K,Na,Cr,Co,Ca		
Sample #	Sample ID	Matrix	Collected	Received
131605002	B2RW99	WATER	12/31/2013 10:40	12/31/2013 11:30
Procedure	11.90 - 80 - 50 (Fall Call Call Call Call Call Call Call	Compound List	Section in the second section is a second section of the second section in the second section is a second section of the second section of the second section is a second section of the section of the second section of the section o	100-10
Strontium 89/90 (GF	PC/GEA)	SR89/90		
Tritium by LSC		Н3		

FINAL SAMPLE	LABORATORY	RELINQUISHED BY/REMOVED FROM	RELINQUISHED BY/REMOVED FROM	RELINGUISHED BY/REMOVED FROM	CHAIN OF POSSESSION				
DISPOSAL METHOD	RECEIVED BY	MOVED FROM	HOVED FROM	MOVED FROM	MOVED FROM	MOVED FROM	MOVED FROM	RELINGUISHED BY/REMOVEDFROM  BOLKAUTE STREEMOVEDFROM  BOLKAUTE STREEMOV	ION
13		DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	OSE II & I.	
		RECEIVED BY/STORED IN	RECEIVED BY/STORED IN	TA FRAZY C. 3	SIGN/ PRINT HAMES				
		DATE/TIME	DATE/TIME	DATE/TIME	BMIT/BING	DATE/TIME	DATE/TIME	DATE/TIME /2-31-13 1/30	
DISPOSED BY DATE/TIME	TITLE DATE/TIME			TRVL 13- 105	FILTER	Magnesium, Mançanese, Potassium, Sodium};	(1) 601C_METALS_ICP: COMMON {Calcium, Chromium, Cobalt, Iron,	** Ine CACN for WSCF Analytical is 444401. Unit line 100 Area Sacky Characterization and Monitoring Sampling and Analysis GKI applies to this SAF TRVI - 33-105	SPECIAL INSTRUCTIONS

Udjusts  Solids Solids Solids L-Upuid O-Oi S-Solid SE-Sediment T-Tissue Va-Wope- Va-Work Va-Work S-ECIAL HANDLING AND/OR STORAGE  SAMPLE NO.  MATRIX*	er pe estatos	diment un etation	diment	α §		in	MATRIX* POSSIBLE SAMPLE HAZARDS/ REMARKS	SHIPPED TO  Waste Sampling & Characterization	ICE CHEST NO.	C8781, I-009	COLLECTOR COLL	CH2MHIII Plateau Remediation Company
13) ( S GAND/OR STORAGE	13) 68	13168			der 458.1.**	concentrations that may or may not be regulated for transportation per 49 CFR/IATA	AZARDS/ REMARKS					tion Company
SAMPLE DATE SAMPLE TIME		SAMPLE ANALYSIS	<b>УОГИМЕ</b>	NO. OF CONTAINER(S)	TYPE OF CONTAINER	HOLDING TIME	PRESERVATION	N/A	TINE-N- 507-25/	PROJECT DESIGNATION Samping and Analysis of New Wells in 100-BC Area - Water	COMPANY CONTACT	HE .
	AMPLE TIME	82000		INER(S)		5,870	NOI	YNO.	27-25/	is of New Wells	-	CHAIN OF
		IN SPECIAL IN SPECIAL INSTRUCTIONS	500mL	-	Q.	6 Months	HINCS to pH			in 100-BC Are	376-	CUSTODY/
									165,55	a - Water	TELEPHONE NO. 376-6427	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST
							*	N/A	303230ES10	F13-051	PROJECT COORDINATOR	EQUEST
								Ď.	GOVERNMENT VEHICLE	ATR QUALITY	PRICE CODE 70	F13-051-199
							1881 - 1981 - 1985 - 19		ORIGINA	15 Days / 15	DATA	PAGE 1 OF 1

# Chain of Custody

FINAL SAMPLE DISPOSITION	LABORATORY	RELINQUISHED BY/REMOVED FROM	RELINQUISHED BY/RE	CHAIN OF POSSESSION					
DISPOSAL METHOD	RECEIVED BY	MOVED FROM	MOVED FROM	MOVED FROM	HOVEO FROM	MOVED FROM	MOVED FROM	RELINQUISHED BY/REMOVED FROM DATE/TIME	ION
		DATE/TIME							
		RECEIVED BY/STORED IN	TA CAME TO DIVE TO	SIGN/ PRINT NAMES					
		DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME 12-31-13 1130	
DISPOSED BY	TITLE		TRAL 13- 105				571. 1131. 15 150	** The CACN for WSCF Analytical is 494401. U+* The 100 Area Seach?  Characterization and Monitoring Sampling and Analysis GKI applies to this SAF TRVI_13-105	SPECIAL INSTRUCTIONS
DATE/TIME	DATE/TIME							J** The 100 Area S&GRP Analysis GKI applies to this	

CHZ	CH2MHill Mateau Remediation Company	1	F CUSTODY/S	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	EQUEST
COLLECTION	ir crow	COMPANY CONTACT TODAK, D	376-6427	376-6427	•
SAMPLING LOCATION	CATION	PROJECT DESIGNATION			- 1
C8781, 1-009		Sampling and Analysis of New Wells in 100-BC Area - Water	in 100-BC Area	- Water	
ICE CHEST NO.		HNP-N-SOD-25/5	b	ACTUAL SAMPLE DEPTH	J, ₹
SHIPPED TO		OFFSITE PROPERTY NO.			
Waste Samp	Weste Sampling & Characterization  MATRIX* POSSIBLE SAMPLE HAZARDS / REMARKS	PRESERVATION	HNC3 to PH	None	
DC-Druin DS-Druin	concentrations that may or may not be regulated for transportation per 49 CFR/IATA	HOLDING TIME	6 Menths	6 Months	
Solids L=Uquid	Dancerous Goods Regulations but are not releasable per DOE Order 450.1.**	TYPE OF CONTAINER	S/P	C	
S=Sull		ND. OF CONTAINER(S)	-		
V=Vegetation W=Water		VOLUME	۲	250mL	
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE AMALYSIS	SRITOT SEP PR.	TRUTUM_EIE_L SC: CONMON;	s. del
SAMPLENO	ENO. MATRIX*	SAMPLE DATE SAMPLE TIME			
B2RW99	1	12-21-13 100	7	1	