0082004

RECEIVED MARCH 16, 2009

WSCF Laboratory

PO Box 1000 S3-30
Richland, WA 99352
(509) 373-7005
(509) 372-0456

Memorandum

To: Michael Neely
CH2M-HILL PRC
PO Box 1600
Richland, WA 99352

Date: March 13, 2009

From: WSCF Laboratory
WSCF Analytical Chemistry

CC:

Subject: FINAL RESULT FOR SAMPLE DELIVERY GROUP WSCF90145

Reference: (1) MOA-FH-CHPRC-2008
(2) HNF-SD-CD-QAPP-017, Rev 9, Waste Sampling & Characterization Facility Quality Assurance Plan

This letter contains the following information for sample delivery group WCSF90145

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

Electronically signed by Scot Fitzgerald
For Lab Manager

Attachments 4

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF Number Cross Reference

Group # WSCF90145
Data Deliverable Date 03/17/09

SAF #	Sample ID	Sample #	Matrix	Sampled	Received
I09-022	B1YHY3	90145001	WATER	03/02/09	03/02/09

ATTACHMENT 2

NARRATIVE

Consisting of 2 pages
Including cover page

Attachment 2
Narrative
WSCF90145

Introduction

One groundwater sample was received at the WSCF Laboratory on March 2. 2009. Sample was analyzed for the analyte indicated on the attached copy of the chain of custody (COC) form in accordance with the *Memorandum of Agreement (MOA-FH-CHPRC-2008, Rev.0),* referenced in the cover letter.

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 stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving, indicating the presence of ice in the transport container.

Analytical Methodology for Requested Analyses

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

Inorganic Comments

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.

All QC controls are within the established limits.

I certify that this data package is in compliance with the MOA, 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 Laboratory Analytical Manager and Client Services.

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ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 7 pages
Including cover page

WSCF ANALYTICAL RESULTS REPORT

For

CH2M Hill Plateau Remediation

PO Box 1600
Richland, WA 99352

Attention: Michael Neely

Contract # MOA-FH-CHPRC-2008
Group # WSCF90145
Report Date March 13, 2009

Analytical: Electronically signed by Scot Fitzgerald

Client Services: Electronically signed by Pauline Mix

All radiochemistry results are reported on an "as received" basis.

Batch QC List

Attention Michael Neely
Department Inorganic

Group # WSCF90145
Project Number I09-022

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
	19994	1	BLANK	4927	BLANK		Hexavalent chromium Discrete Analyzer
	19994	2	LCS	4928	LCS		Hexavalent chromium Discrete Analyzer
	19994	4	SAMPLE	90145001	B1YHY3		Hexavalent chromium Discrete Analyzer
	19994	5	DUP	4930	B1YHY3(90145001DUP)	90145001	Hexavalent chromium Discrete Analyzer
	19994	6	MS	4931	B1YHY3(90145001MS)	90145001	Hexavalent chromium Discrete Analyzer

Method Reference

Attention Michael Neely
Department Inorganic

Group # WSCF90145
Project Number I09-022

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-265-403	Hexavalent Chromium Analysis		
	EPA SW-846	7196A	Hexavalent Chromium
	HEIS	7196_CR6	Hexavalent Chromium

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

Attention Michael Neely
Department Inorganic

Group # WSCF90145
Project Number I09-022

Sample # 90145001
SAF# I09-022
Sample ID B1YHY3

Matrix WATER
Sampled 03/02/09
Received 03/02/09

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.0020		mg/L	1	0.0020	0.0050	03/03/09.

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

B - Analyte < the RDL 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 sample recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF90145
Project Number I09-022

QC Batch 19994
Associated Samples 90145001

Test Hexavalent chromium Discrete Analyzer

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #4927**							
Hexavalent chromium	18540-29-9		<0.0020	mg/L					U	03/03/09
LCS			**QC Sample #4928**							
Hexavalent chromium	18540-29-9		0.0504	mg/L	100.4	90 - 110				03/03/09
DUP			**QC Sample #4930**							
			Original 90145001							
Hexavalent chromium	18540-29-9	0	<0.0020	mg/L			0.00	20	U	03/03/09
MS			**QC Sample #4931**							
			Original 90145001							
Hexavalent chromium	18540-29-9	0	0.0559	mg/L	104.7	85 - 115				03/03/09

Analytical Comment Report

Attention Michael Neely

Group # WSCF90145
Project Number I09-022

ATTACHMENT4

SAMPLE RECEIPT

Consisting of 3 pages
Including cover page

Waste Sampling and Characterization Facility
P.O. Box 1970 S3-30, Richland WA 99352
Phone: (509) 373-7004/FAX: (509) 373-7134

ACKNOWLEDGEMENT OF SAMPLES RECEIVED

WSCF Laboratory
PO Box 1000 S3-30
Richland, WA 99352

ATTN: Michael Neely

Customer Code:	CHPRC
PO #:	131280
Work Order #:	90145
Profile #:	I09-022-125
Proj. Mgr.:	
Phone:	

The following samples were received from you on 3/2/2009 3:15:00 PM. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

Sample #	Sample ID	Matrix	Collected	Received
		Tests scheduled		
90145001	B1YHY3	WATER	3/2/2009 09:47	3/2/2009 15:15
		CR6DA-W		

Test Acronym Description

Test Acronym	Description
CR6DA-W	Cr6 (W,Discrete analyzer)

Sample Receipt

CHPRC	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST 90145	C.O.C. # 109-022-125
		Page 1 of 1

Collector: Scott E. Hamaker	Contact/Requester: Dana Widrig	Telephone No.: 509-376-2858 MSIN: n/a FAX: n/a
SAF No.: 109-022	Sampling Origin: Hanford Site	Purchase Order/Charge Code: n/a
Project Title: 2UP1, FEBRUARY 2009	HNF-N-506- 21 / 15	Ice Chest No.: 6-135-07 Temp.: n/a
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.: n/a
Protocol: SURV	Priority: 24 Hours PRIORITY	Offsite Property No.: n/a

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
200 Area Generator Knowledge Information Form applies.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B1YHY3	001	W	3/2/09	0947	1x500-mL aG	7196_CR6: Hexavalent Chromium (1)	24 Hours	Cool-4C
								ICED

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Scott E. Hamaker	Scott Hamaker	1515 MAR 02 2009	TA Frazier	Teresa Frazier	MAR 02 2009 1515
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time

Matrix *

S = Soil	DS = Drum Solid		
SE = Sediment	DL = Drum Liqui		
SO = Solid	T = Tissue		
SL = Sludge	WI = Wipe		
W = Water	L = Liquid		
O = Oil	V = Vegetation		
A = Air	X = Other		