

PO Box 650 S3-30
Richland, WA 99352



November 4, 2010

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

Dear Michael Neely,

FINAL RESULT FOR SAMPLE DELIVERY GROUP WSCF102768

Reference: (1) SOW, Mod 2, #36587, Release 3
(2) HNF-SD-CD-QAPP-017, current version, Waste Sampling & Characterization Facility Quality Assurance Plan

This letter contains the following information for sample delivery group WSCF102768

- * 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

WSCF Analytical Lab

(509) 373-7495

Attachments 4

CC: w/Attachments

File/LB

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF Number Cross Reference

Group # WSCF102768
Data Deliverable Date 08/14/10

SAF #	Sample ID	Sample #	Matrix	Sampled	Received
X10-081	B26602	102768001	WATER	07/15/10	07/15/10
X10-081	B265Y4	102768002	WATER	07/15/10	07/15/10

ATTACHMENT 2

NARRATIVE

Consisting of 3 pages
Including cover page

Introduction RDR R-6891

Two (2) groundwater samples were selected for reanalysis at the WSCF Laboratory. The samples were selected from WSCF101723 (CHPRC order number 101007WSCF-R6819 sample numbers 101723009 (B26602) and 101723010 (B265Y4)). The samples were analyzed for the analytes indicated on the attached copy of the RDR 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 RDR 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.

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):

- Americium-241:
 - Batch QC 169337 analyzed on sample# B26602 (102768001)

All QC controls are within the established limits.

The new results for both samples were less than the MDC. The new MDC's for these samples were higher than the results originally reported. The initial and subsequent results are essentially the same.

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 8 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 # WSCF102768
Report Date November 4, 2010

Analytical: Electronically signed by Joseph Hale

Client Services: Electronically signed by Richard Barker

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) 373-7020 or (509) 531-8004. Information designation of this report is the responsibility of the customer.

Batch QC List

Attention Michael Neely
Department Radiochemistry

Group # WSCF102768

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
169337	169436	1	BLANK	40871	BLANK		Americium/Curium (AEA)
169337	169436	2	LCS	40872	LCS		Americium/Curium (AEA)
169337	169436	3	SAMPLE	102768001	B26602		Americium/Curium (AEA)
169337	169436	4	DUP	40873	B26602(102768001DUP)	102768001	Americium/Curium (AEA)
169337	169436	5	SAMPLE	102768002	B265Y4		Americium/Curium (AEA)

Method Reference

Attention Michael Neely
Department Radiochemistry

Group # WSCF102768

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-508-471	Determination Of Uranium, Plutonium, And Americium
	HEIS AMCMISO_IE_PREC_AEA Americium/Curium Iso, Alpha Spec

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 Radiochemistry

Group # WSCF102768

Sample # 102768001
 SAF# X10-081
 Sample ID B26602

Matrix WATER
 Sampled 07/15/10
 Received 07/15/10

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Th/Pu/Am/U Teva										11/02/10
AEA Am-U-Pu										
Americium-241	14596-10-2	LA-508-471	U	-0.088	.21	pCi/L	1	0.38		11/03/10

MDL = Minimum Detection
 RQ = Result Qualifier
 TP Err = Total Propagated
 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 Michael Neely
 Department Radiochemistry

Group # WSCF102768

Sample # 102768002
 SAF# X10-081
 Sample ID B265Y4

Matrix WATER
 Sampled 07/15/10
 Received 07/15/10

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Th/Pu/Am/U Teva										11/02/10
AEA Am-U-Pu										
Americium-241	14596-10-2	LA-508-471	U	-0.11	.19	pCi/L	1	0.35		11/03/10

MDL = Minimum Detection
 RQ = Result Qualifier
 TP Err = Total Propagated
 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.

Quality Control Report

Attention Michael Neely
Department Radiochemistry

Group # WSCF102768

QC Batch 169337 **Test** Americium/Curium (AEA)
Associated Samples 102768001, 102768002

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK										
Americium-241	14596-10-2		0.11	pCi/L					U	11/03/10
LCS										
Americium-241	14596-10-2		5.3	pCi/sample	95.4	80 - 120				11/03/10
DUP										
Americium-241	14596-10-2	-0.088	0.082	pCi/L			-5666.70 -20 - 20	*	U	11/03/10
SAMPLE										
Americium-243 Tracer	14993-75-0				96.8	25 - 105				11/03/10
SAMPLE										
Americium-243 Tracer	14993-75-0				92.9	25 - 105				11/03/10
BLANK										
Americium-243 Tracer	14993-75-0				89.5	25 - 105				11/03/10
LCS										
Americium-243 Tracer	14993-75-0				86.2	25 - 105				11/03/10

Quality Control Report

Attention Michael Neely
Department Radiochemistry

Group # WSCF102768

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
DUP			QC Sample #40873							
			Original 102768001							
Americium-243 Tracer	14993-75-0				91.3	25 - 105	0.00			11/03/10

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 650 S3-30
 Richland, WA 99352

ATTN: Michael Neely

Customer Code: CHPRC
 PO #: 401922
 Work Order #: 102768
 Profile #: RERUN X10-081-248
 Proj. Mgr.:
 Phone:

The following samples were received from you on 7/15/2010 3:10:00 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				
102768001	B26602	WATER AEA-AM-W	7/15/2010 11:31	7/15/2010 15:10
102768002	B265Y4	WATER AEA-AM-W	7/15/2010 11:31	7/15/2010 15:10

Test Acronym Description

Test Acronym	Description
AEA-AM-W	Americium (AEA) (W)

X10-08

11/18/2010
RECHECK, RECOUNT, OR REANALYSIS ORDER
CONTRACT NO MW6-SBB-A19981

Rerun
102768
td

Waste Sampling & Characterization
600 AREA Hanford, MSIN S3-28
Richland, WA 99352

CHPRC Order Number: 101007WSCF-R6819
Sample Delivery Group: WSCF101723
Special Instructions None

Samples(s)					METHOD_NAME: WSCF
Lab Sample ID	CHPRC Sample	Action	TAT		
101723009	B26602	Reanalysis	30/30	AMCMISO_IE_PREC	102768001
101723010	B265Y4	Reanalysis	30/30	AMCMISO_IE_PREC	-002

Deliver Report Results CH2M Hill Plateau Remediation Company
P.O. Box 1600
Mail Stop - R3-60
Richland, WA 99352
C/O Mr. Mike Neely