

Fluor Hanford
WSCF Analytical Lab
P.O. Box 1000
Richland, Washington 99352
Telephone 373-7495
Telefax 372-0456



M4W41-SLF-09-097

March 2, 2009

Mr. M. A. Neely, Manager
Analytical Services
CH2M HILL Plateau Remediation Contract
PO Box 1600 MSIN R3-60
Richland, WA 99352

Dear Mike:

RDRs #R5414 RESULTS FOR SAMPLE DELIVERY GROUP WSCF20090094 – SAF NUMBER F08-031

References: (1) Memorandum of Agreement #MOA-FH-CHPRC-2008, Rev. 0, for the Performance & Payment of Services, dated October 1, 2008

(2) HNF-SD-CD-QAPP-017, Rev. 9, Waste Sampling & Characterization Facility Quality Assurance Plan

On January 22, 2009, RDR #R5414 was received by the WSCF Laboratory. This letter contains the following RDR data for sample delivery group WSCF20090094:

- RDR #R5414 (Attachment 1)
- Analytical Results (Attachment 2)
- Sample Receipt Acknowledgement (Attachment 3)

Reanalysis was requested to improve the detection limits for Pu and Am. The samples were retrieved from the archive and new digests were prepared using increased amounts of sample. Results obtained for Pu and Am showed a significant improvement in the detection limit. The small quantity of sample used in the initial work was due to the significant beta activity present.

Please accept our apology for any inconvenience this may have created. If you have any questions, don't hesitate to call on Pauline Mix, telephone 372-1488, for assistance.

Very truly yours,

S. L. Fitzgerald
WSCF Analytical Lab

SLF/grf

Attachments 3

cc: w/Attachments

T. F. Dale	S3-30	J. E. Trechter	S3-30
A. J. Kopriva	S3-30	S. J. Trent	B6-06
H. K. Mezmarich	S3-30	File/LB	
P. D. Mix	S3-30		

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ATTACHMENT 1

RDR #R5414

Consisting of 2 pages
Including cover page

01/22/2009
RECHECK, RECOUNT, OR REANALYSIS ORDER
CONTRACT NO MW6-SBB-A19981

**Waste Sampling &
600 AREA Hanford, MSIN
Richland, WA 99352**

Battelle PNNL Order Number: 090121WSCF-R5414

Sample Delivery Group: WSCF20080882 **(WSCF20090094)**

Special Instructions Reanalyze with larger sample size if possible.

Samples(s)

Lab Sample ID	PNNL Sample	Action	TAT	METHOD_NAME:
W08GR01132	B1TFP0	Reanalysis	15/15	PUISO_IE_PRECIP_A
W08GR01132	B1TFP0	Reanalysis	15/15	AMCMISO_IE_PREC_A

WSCF Response

Sample was re-analyzed and report submitted to client.

Deliver Report Results to:CH2M Hill Plateau Remediation Company
P.O. Box 1600
Mail Stop - B6-06
Richland, WA 99352
C/O Mr. Mike Neely

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ATTACHMENT 2

ANALYTICAL RESULTS

Consisting of 5 pages
Including cover page

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-031
Sample #: W09GR00066
Client ID: BITFP0

Method: PU RERUN
Matrix: SOIL
WSCF

Group #: WSCF20090094
Department: Radiochemistry
Sampled: 02/12/08
Received: 05/01/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Americium by AEA											
Americium-241	14596-10-2	LA-508-471		9.10	pCi/g	+2.37	pCi/g	1.00	0.046		02/26/09
Am-243 tracer by AEA	AM243	LA-508-471		3.70	pCi/g			1.00	0.022		02/26/09
Plutonium Isotopes by AEA											
Plutonium-238	13981-16-3	LA-508-471		0.260	pCi/g	+0.0806	pCi/g	1.00	0.038		02/13/09
Pu-239/240 by AEA	PU-239/240	LA-508-471		0.730	pCi/g	+0.197	pCi/g	1.00	0.012		02/13/09
Pu-242	13982-10-0	LA-508-471		5.70	pCi/g			1.00	0.012		02/13/09

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

* - Indicates results that have NOT been validated;
 + - Indicates more than six qualifier symbols
 Report WGPP/ver. 5.2

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20090094
 Matrix: SOLID
 Test: Americium by AEA

Sample Date: 04/17/08
 Receive Date: 04/28/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W09GR00065											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Americium-241	14596-10-2	U6e-2		RPD			n/a	20.000		02/26/09
DUP	Am-243 tracer by AEA	AM243	9.981	96.450	% Recov	30.000	105.000				02/26/09
Lab ID: W09GR00066											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Am-243 tracer by AEA	AM243	3.67	104.640	% Recov	30.000	105.000				02/26/09
BATCH QC											
BLANK	Americium-241	14596-10-2	U1.1e-2	n/a	pCi/g	-10.000	1000.000				02/26/09
BLANK	Am-243 tracer by AEA	AM243	4.001	74.550	% Recov	30.000	105.000				02/26/09
LCS	Americium-241	14596-10-2	12.96	100.895	% Recov	80.000	120.000				02/26/09
LCS	Am-243 tracer by AEA	AM243	11.1	84.580	% Recov	30.000	105.000				02/26/09

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20090094

Matrix: SOLID

Test: Plutonium Isotopics by AEA

Sample Date: 04/17/08

Receive Date: 04/28/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date	
Lab ID: W09GR00063												
BATCH QC ASSOCIATED WITH SAMPLE												
DUP	Plutonium-238	13981-16-3	U5.5e-3		RPD			n/a	20.000		02/13/09	
DUP	Pu-239/240 by AEA	PU-239/240	3.8e-2		RPD			37.500	20.000 •		02/13/09	
DUP	Pu-242	13982-10-0	6.036	83.130	% Recov	30.000	105.000				02/13/09	
Lab ID: W09GR00066												
BATCH QC ASSOCIATED WITH SAMPLE												
SURR	Pu-242	13982-10-0	5.726	89.540	% Recov	30.000	105.000				02/13/09	
BATCH QC												
BLANK	Plutonium-238	13981-16-3	U2.6e-2	n/a	pCi/g	-10.000	1000.000				02/13/09	
BLANK	Pu-239/240 by AEA	PU-239/240	U-5.6e-3	n/a	pCi/g	-10.000	1000.000				02/13/09	
BLANK	Pu-242	PU242	6.241	89.160	% Recov	30.000	105.000				02/13/09	
LCS	Pu-239/240 by AEA	PU-239/240	13.55	105.489	% Recov	80.000	120.000				02/13/09	
LCS	Pu-242	PU242	17.32	92.370	% Recov	30.000	105.000				02/13/09	

WSCF ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F08-031

Group #: WSCF20090094
Department: Radiochemistry

Sample #	Client ID	Lab Area	Test	Comment
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VALGROUP

Pu239 dup is flagged due to inhomogeneity of the sample.lmh

Lab Areas:	VALGROUP - Group Validation LOGSAMP - Login for Sample	VALTEST - Test Validation LOGTEST - Login for Tests	TESTDATA - Test Data Entry
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This report may not be reproduced, except in its entirety without the written approval of the WSCF Laboratory.

wgpppc/5.2 Report#: WSCF20090094

Report Date: 27-feb-2009

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ATTACHMENT 3

SAMPLE RECEIPT ACKNOWLEDGEMENT

Consisting of 2 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

File

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program

Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 123055/ES20
Group#: 20090094
Project#: F08-031
Proj Mgr: Steve Trent E6-35
Phone: 373-5869

02/05/09
tal

R5414

The following samples were received from you on 05/01/08. 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	Tests Scheduled	Matrix	Sample Date
W09GR00066	B1TFP0	PU RERUN @AEA-30 @AEA-31	Solid, or handle as if solid	02/12/08

Test Acronym Description

Test Acronym	Description
@AEA-30	Plutonium Isotopics by AEA
@AEA-31	Americium by AEA