

RECEIVED JULY 16, 2008

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FLUOR**Memorandum**

M4W41-SLF-08-697

To: H. Hampt E6-35 Date: July 16, 2008

From: S. L. Fitzgerald, Manager WSCF Analytical Lab *Markus Stauffer for SLF*

cc: w/Attachments

T. F. Dale	S3-30	P. D. Mix	S3-30
D. Felmy (PNNL)	K6-75	J. E. Trechter	S3-30
A. J. Kopriva	S3-30	S. J. Trent	E6-35
H. K. Meznarich	S3-30	File/LB	S3-30

Subject: RESUBMITTAL OF SAMPLE DELIVERY GROUP WSCF20072104

Reference: 1) Memo, SL Fitzgerald to H Hampt, Final Results for SDG WSCF20072104 (M4W41-SLF-07-950), dated December 5, 2007

2) Letter of Instruction for Analytical Services for the Groundwater Performance Assessment Project and Analytical Laboratory Transition Plan, FH-0602422, September 19, 2006

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

Compliant to your request, Hexavalent Chromium result for sample# B1R3W7 (SAF# I08-009) has been removed from this sample delivery group. This transmittal contains the following resubmittal information for sample delivery group WSCF20072104:

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

This resubmittal replaces Reference 1 in its entirety. If you have any questions, don't hesitate to call on Pauline Mix, telephone 372-1488, for assistance.

SLF/grf

Attachments 4

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ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20072104
Data Deliverable Date: 05-dec-2007
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
I08-005	B1R2V8	W07P003331	WATER
	B1R2W7	W07P003330	WATER
S08-011	B1R4J8	W07P003328	WATER

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ATTACHMENT 2

NARRATIVE

Consisting of 2 pages
Including cover page

Introduction

Four (4) groundwater samples were received at the WSCF Laboratory on November 27, 2007. Samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, 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 sample container.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report*, page 9, 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, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per the GRP Letter of Instruction. See page 14 for QC details. Analytical Note(s):

- Sample results were D flagged if dilution(s) were required.

All QC controls are within the established limits.

I certify that this data package is in compliance with the LOI, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Analytical Manager and Client Services as verified by the following signatures.

Scot L. Fitzgerald
WSCF Analytical Laboratory Manager


Pauline D. Mix
WSCF Client Services

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ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 8 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

GPAP
Richland, WA 99352

Attention: Steve Trent E6-35

Analytical: Markus Stauffer Markus Stauffer 7/16/08

Client Services: P.D. Mip 7/15/2008

All results are reported on an "as received" basis unless otherwise noted in the comment section.

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.

Report#: WSCF20072104
Report Date: 15-jul-2008
Report WGPP/ver. 5.2
GPAP

Page 1

W13q Worklist/Batch/QC Report for Group# WSCF20072104

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
34296	2	34695	38915	BLANK		Hexavalent chromium
34296	11	34695	38915	BLANK		Hexavalent chromium
34296	3	34695	38915	LCS		Hexavalent chromium
34296	4	34695	38915	SAMPLE	W07P003328	Hexavalent chromium
34296	6	34695	38915	DUP	W07P003329	Hexavalent chromium
34296	7	34695	38915	MS	W07P003329	Hexavalent chromium
34296	8	34695	38915	MSD	W07P003329	Hexavalent chromium
34296	8	34695	38915	SPK-RPD	W07P003329	Hexavalent chromium
34296	9	34695	38915	SAMPLE	W07P003330	Hexavalent chromium
34296	10	34695	38915	SAMPLE	W07P003331	Hexavalent chromium

WSCF

METHOD REFERENCES REPORT

Department: Inorganic

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 or industry 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 the 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	LA-265-403: Hexavalent Chromium analysis by Spectrophotometer
EPA SW-846 7196A	HEXAVALENT CHROMIUM
HEIS 7196_CR6	Hexavalent Chromium

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at <http://www2.rl.gov/phmc/as-dol>.

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: S08-011

Sample # W07P003328

Client ID: B1R4J8 PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20072104

Department: Inorganic

Sampled: 11/27/07

Received: 11/27/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Hexavalent Chromium											
Hexavalent Chromium	18540-29-9	LA-265-403		0.143	mg/L			1.00	2.0e-03		11/27/07

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

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WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: I08-005

Sample # W07P003330

Client ID: B1R2W7 PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20072104

Department: Inorganic

Sampled: 11/27/07

Received: 11/27/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Hexavalent Chromium											
Hexavalent Chromium	18540-29-9	LA-265-403		0.0579	mg/L			1.00	2.0e-03		11/27/07

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

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: I08-005

Sample # W07P003331

Client ID: B1R2V8 PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20072104

Department: Inorganic

Sampled: 11/27/07

Received: 11/27/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Hexavalent Chromium											
Hexavalent Chromium	18540-29-9	LA-265-403		0.0579	mg/L			1.00	2.0e-03		11/27/07

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

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20072104
 Matrix: WATER
 Test: Hexavalent chromium

Sample Date: 11/27/07
 Receive Date: 11/27/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07P003329											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Hexavalent chromium	18540-29-9	0.6015		RPD			2.073	15.000		11/27/07
MS	Hexavalent chromium	18540-29-9	0.0583	110.626	% Recov	85.000	115.000				11/27/07
MSD	Hexavalent chromium	18540-29-9	0.0569	107.970	% Recov	85.000	115.000				11/27/07
SPK-RPD	Hexavalent chromium	18540-29-9	107.970		RPD			2.430	20.000		11/27/07
BATCH QC											
BLANK	Hexavalent chromium	18540-29-9	<0.002	n/a	mg/L	0.000	2.000			U	11/27/07
BLANK	Hexavalent chromium	18540-29-9	<0.002	n/a	mg/L	0.000	2.000			U	11/27/07
LCS	Hexavalent chromium	18540-29-9	0.0511	103.232	% Recov	80.000	120.000				11/27/07

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ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 6 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

ACKNOWLEDGMENT OF SAMPLES RECEIVED

GPAP

Richland, WA 99352
Attn: Steve Trent E6-35

Customer Code: PNNL-GPP
PO#: 122543
Group#: 20072104

The following samples were received from you on 11/27/07. 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
W07P003328	B1R4J8	PNNL-GPP CR+6	Water	11/27/07
W07P003329	B1R3W7	PNNL-GPP	Water	11/27/07
W07P003330	B1R2W7	PNNL-GPP CR+6	Water	11/27/07
W07P003331	B1R2V8	PNNL-GPP CR+6	Water	11/27/07

Test Acronym Description

Test Acronym	Description
CR+6	Hexavalent chromium

