

RECEIVED JULY 7, 2008

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FLUOR**Memorandum**

M4W41-SLF-08-870

To: H. Hampt E6-35 Date: July 3, 2008

From: S. L. Fitzgerald, Manager *J. Douglas 7/3/08 for SLF*
 WSCF Analytical Lab

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	

Subject: FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20081246

Reference: 1) Letter of Instruction for Analytical Services for the Groundwater Performance Assessment Project and Analytical Laboratory Transition Plan, FH-0602422, September 19, 2006

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

This transmittal contains the following information for sample delivery group WSCF20081246:

- Cover Sheet (Attachment 1)
- Narrative (Attachment 2)
- Issue Resolution Form (Attachment 3)
- Analytical Results (Attachment 4)
- Sample Receipt Information (Attachment 5)

SLF/grf

Attachments 5

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ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20081246
Data Deliverable Date: 24-jun-2008
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
I08-035	B1V5N8	W08P002922	WATER
	B1V5P2	W08P002921	WATER
I08-040	B1VKC1	W08P002923	WATER
	B1VKC2	W08P002920	WATER
I08-043	B1VL21	W08P002919	WATER

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ATTACHMENT 2

NARRATIVE

Consisting of 2 pages
Including cover page

Introduction

Five groundwater samples were received at the WSCF Laboratory on June 23, 2008. 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 copy of Issue Resolution Form #08-092 is included as Attachment 3, documenting missed Hexavalent Chromium hold time. A Data Summary Report (Attachment 4) 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 5.

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 11, for a complete listing of approved analytical methods.

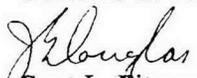
Inorganic Comments

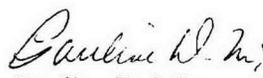
Hexavalent Chromium – The hold time requirement for this analysis was not met. See comment below. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per the GRP Letter of Instruction. See page 17 for QC details. Analytical Note(s):

- Missed Hold Time – Refer to IRF# 08-092 (Attachment 3) for detail.
- Sample results that were less than the reportable limit, however greater than the method detection limit were B flagged.

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.


7/3/08 for SLF
Scot L. Fitzgerald
WSCF Analytical Laboratory Manager


Pauline D. Mix
WSCF Client Services

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ATTACHMENT 3

ISSUE RESOLUTION FORM

Consisting of 2 pages
Including cover page

ISSUE RESOLUTION FORM

PNNL TRACKING NUMBER: 08-092

Date : 7-3-2008 SAF No. **I08-035, I08-40, I08-043**

SDG: **WSCF20081246** LOGIN No.: TEST: Cr+6

Sample No.(s) **B1V5N8, B1V5P2, B1VKC1, B1VKC2, B1VL21**

(W08P002922, W08P002921, W08P002923, W08P002920, W08P002919)

Submitted By: WW Baird Submitted To: H Hampt

Phone No. 372-7189 Phone No. 376-4319

Fax No. 372-0456 Fax No

ISSUE

Missed regulatory holding time for Hexavalent Chromium analysis.

Samples were collected and delivered to the WSCF Laboratory on June 23, 2008. However due to a WSCF Laboratory error, samples were not analyzed until June 25, 2008 after the regulatory hold time requirement had been exceeded.

All QC controls were within established laboratory limits.

PROPOSED RESOLUTION

Accept results (accept as-is) and document missed holding time for Hexavalent Chromium analysis in the case narrative.

GRP COMMENTS

Accept proposed resolution.

Heidi Hampt 7/3/08

Signature and Date

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ATTACHMENT 4

ANALYTICAL RESULTS

Consisting of 10 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

GPAP
Richland, WA 99352

Attention: Steve Trent E6-35

Analytical:

J. Douglas 7/3/08 for SLF

Client Services:

Bob P.D. Mix 7/2/08

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#: WSCF20081246
Report Date: 3-Jul-2008
Report WGPP/ver. 5.2
GPAP

W13q Worklist/Batch/QC Report for Group# WSCF20081246

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
36838	2	37254	41618	BLANK		Hexavalent chromium
36838	12	37254	41618	BLANK		Hexavalent chromium
36838	3	37254	41618	LCS		Hexavalent chromium
36838	5	37254	41618	DUP	W08P002919	Hexavalent chromium
36838	6	37254	41618	MS	W08P002919	Hexavalent chromium
36838	7	37254	41618	MSD	W08P002919	Hexavalent chromium
36838	4	37254	41618	SAMPLE	W08P002919	Hexavalent chromium
36838	7	37254	41618	SPK-RPD	W08P002919	Hexavalent chromium
36838	8	37254	41618	SAMPLE	W08P002920	Hexavalent chromium
36838	9	37254	41618	SAMPLE	W08P002921	Hexavalent chromium
36838	10	37254	41618	SAMPLE	W08P002922	Hexavalent chromium
36838	11	37254	41618	SAMPLE	W08P002923	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.ri.gov/phmc/as-dol>.

Report Date: 3-jul-2008
Report#: WSCF20081246
Report WGPPM/5.2

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-035
Sample # W08P002921
Client ID: B1V5P2

Group #: WSCF20081246
Department: Inorganic
Sampled: 06/23/08
Received: 06/23/08

TRENT **Matrix:** WATER **Unit** **TP Err** **DF** **MDL** **PQL** **Analysis Date**
 WSCF
Test Performed **CAS #** **Method** **RQ** **Result** **Unit** **TP Err** **Unit** **DF** **MDL** **PQL** **Analysis Date**
Hexavalent Chromium
 18540-29-9 LA-265-403 6.00e-03 mg/L 1.00 2.0e-03 06/25/08

MDL = Minimum Detection Limit B - The analyte < the RDL but > = the IDL/MDL (inorg)
RQ = Result Qualifier U - Analyzed for but not detected above limiting criteria(inorg)
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*
GPAP
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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-040
Sample # W08P002923
Client ID: BIVKCI

Group #: WSCF20081246
Department: Inorganic
Sampled: 06/23/08
Received: 06/23/08

TRENT **Matrix:** WATER
WSCF

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Hexavalent Chromium	18540-29-9	LA-265-403		7.30e-03	mg/L			1.00	2.0e-03		06/25/08

MDL = Minimum Detection Limit B - The analyte < the RDL but > = the IDL/MDL (inorg) U - Analyzed for but not detected above limiting criteria(inorg)
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
GPAP

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081246
 Matrix: WATER
 Test: Hexavalent chromium

Sample Date: 06/23/08
 Receive Date: 06/23/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P002919											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Hexavalent chromium	18540-29-9	<0.002		RPD			n/a	15.000	U	06/25/08
MS	Hexavalent chromium	18540-29-9	0.0555	103.545	% Recov	85.000	115.000				06/25/08
MSD	Hexavalent chromium	18540-29-9	0.0555	103.545	% Recov	85.000	115.000				06/25/08
SPK-RPD	Hexavalent chromium	18540-29-9	103.545		RPD			0.000	20.000		06/25/08
BATCH QC											
BLANK	Hexavalent chromium	18540-29-9	<0.002	n/a	mg/L	0.000	2.000			U	06/25/08
BLANK	Hexavalent chromium	18540-29-9	<0.002	n/a	mg/L	0.000	2.000			U	06/25/08
LCS	Hexavalent chromium	18540-29-9	0.0528	104.762	% Recov	80.000	120.000				06/25/08

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ATTACHMENT 5

SAMPLE RECEIPT INFORMATION

Consisting of 7 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
DUE
6/24/08

ACKNOWLEDGMENT OF SAMPLES RECEIVED

GPAP

Richland, WA 99352
Attn: Steve Trent E6-35

Customer Code: PNNL-GPP
PO#: 122543
Group#: 20081246

The following samples were received from you on 06/23/08. 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
W08P002919	B1VL21	CR+6	TRENT Water	06/23/08
W08P002920	B1VKC2	CR+6	TRENT Water	06/23/08
W08P002921	B1V5P2	CR+6	TRENT Water	06/23/08
W08P002922	B1V5N8	CR+6	TRENT Water	06/23/08
W08P002923	B1VKC1	CR+6	TRENT Water	06/23/08

Test Acronym Description

Test Acronym	Description
CR+6	Hexavalent chromium

