

RECEIVED OCTOBER 24, 2008

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

FLUOR**Memorandum**

M4W41-SLF-08-1176

To: M. A. Neely B6-06 Date: October 24, 2008

From: S. L. Fitzgerald, Manager
 WSCF Analytical Lab 

cc: w/Attachments

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

Subject: FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20081970 – SAF NUMBER F08-081

Reference: (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

This letter contains the following information for sample delivery group WSCF20081970:

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

SLF/grf

Attachments 4

RECEIVED
 FEB 19 2009
 EDMC

M4W41-SLF-08-1176

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20081970
Data Deliverable Date: 24-oct-2008
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
F08-081	B1TPP0	W08GR03687	WATER
	B1TPP1	W08GR03688	WATER
	B1TPP2	W08GR03689	WATER
	B1TPP3	W08GR03690	WATER
	B1TPP4	W08GR03691	WATER
	B1TPP5	W08GR03692	WATER
	B1TPP6	W08GR03693	WATER
	B1TPP7	W08GR03694	WATER
	B1TPP8	W08GR03695	WATER
	B1TPRO	W08GR03696	WATER

M4W41-SLF-08-1176

ATTACHMENT 2

NARRATIVE

**Consisting of 3 pages
Including cover page**

Introduction

Ten (10) S&GRP samples were received at the WSCF Laboratory on September 11, 2008. Samples were successfully analyzed at the WSCF Laboratory for the analytes 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 sample container.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report*, pages 12 through 13, for a complete listing of approved analytical methods.

- **Hexavalent Chromium** – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See page 24 for QC details.
- All QC controls are within the established limits.

Radiochemistry Comments

Rad Chem – There are no hold times associated with WSCF's radiochemical methods. A Duplicate, Matrix Spike (*Matrix Spikes apply only to Neptunium, Technetium & Tritium and Matrix Spike Duplicate applies to Neptunium*), Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 35 through 40 for QC details. Analytical Note(s):

- Strontium 89/90 Analysis: Duplicate was analyzed on sample# B1TRC0 (SDG# 20081815, SAF# F08-084).
- Tritium Analysis by LSC: Duplicate and Matrix Spike was analyzed on sample# B1WMX5 (SDG# 20081966, SAF# F08-149).

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



Andrew Kopriva
WSCF Client Services

M4W41-SLF-08-1176

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 34 pages
Including cover page

**WSCF
ANALYTICAL RESULTS REPORT**

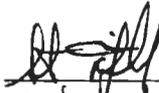
for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical:

 S. Fitzgerald 10/24/08

Client Services:

 A. Kopriva 10/23/08

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.

Contract#: FH-EIS-2003-MEM-001
Report#: WSCF20081970
Report Date: 23-oct-2008
Report WGPP/ver. 5.2
Groundwater Remediation Program

W13q Worklist/Batch/QC Report for Group# WSCF20081970

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
37984	4	38406	42820	BLANK		Hexavalent chromium
37984	18	38406	42820	BLANK		Hexavalent chromium
37984	22	38406	42820	BLANK		Hexavalent chromium
37984	5	38406	42820	LCS		Hexavalent chromium
37984	8	38406	42820	DUP	W08GR03687	Hexavalent chromium
37984	9	38406	42820	MS	W08GR03687	Hexavalent chromium
37984	7	38406	42820	SAMPLE	W08GR03687	Hexavalent chromium
37984	10	38406	42820	SAMPLE	W08GR03688	Hexavalent chromium
37984	11	38406	42820	SAMPLE	W08GR03689	Hexavalent chromium
37984	12	38406	42820	SAMPLE	W08GR03690	Hexavalent chromium
37984	13	38406	42820	SAMPLE	W08GR03691	Hexavalent chromium
37984	14	38406	42820	SAMPLE	W08GR03692	Hexavalent chromium
37984	15	38406	42820	SAMPLE	W08GR03693	Hexavalent chromium
37984	16	38406	42820	SAMPLE	W08GR03694	Hexavalent chromium
37984	17	38406	42820	SAMPLE	W08GR03695	Hexavalent chromium
37984	19	38406	42820	SAMPLE	W08GR03696	Hexavalent chromium

W13q Worklist/Batch/QC Report for Group# WSCF20081970

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
38083	1	38504	43222	BLANK		Strontium 89/90
38083	2	38504	43222	LCS		Strontium 89/90
38083	3	38504	43222	DUP	W08GR03692	Strontium 89/90
38083	4	38504	43222	SAMPLE	W08GR03692	Strontium 89/90
38083	5	38504	43222	SURR	W08GR03692	Strontium 89/90
38083	6	38504	43222	SAMPLE	W08GR03693	Strontium 89/90
38083	7	38504	43222	SURR	W08GR03693	Strontium 89/90
38083	8	38504	43222	SAMPLE	W08GR03694	Strontium 89/90
38083	9	38504	43222	SURR	W08GR03694	Strontium 89/90
38083	10	38504	43222	SAMPLE	W08GR03695	Strontium 89/90
38083	11	38504	43222	SURR	W08GR03695	Strontium 89/90
38083	12	38504	43222	SAMPLE	W08GR03696	Strontium 89/90
38083	13	38504	43222	SURR	W08GR03696	Strontium 89/90
38094	1	38515	43227	BLANK		Strontium 89/90
38094	2	38515	43227	LCS		Strontium 89/90
38094	3	38515	43227	DUP	W08GR03477	Strontium 89/90
38094	10	38515	43227	SAMPLE	W08GR03687	Strontium 89/90
38094	11	38515	43227	SURR	W08GR03687	Strontium 89/90
38094	12	38515	43227	SAMPLE	W08GR03688	Strontium 89/90
38094	13	38515	43227	SURR	W08GR03688	Strontium 89/90
38094	14	38515	43227	SAMPLE	W08GR03689	Strontium 89/90
38094	15	38515	43227	SURR	W08GR03689	Strontium 89/90
38094	16	38515	43227	SAMPLE	W08GR03690	Strontium 89/90
38094	17	38515	43227	SURR	W08GR03690	Strontium 89/90
38094	18	38515	43227	SAMPLE	W08GR03691	Strontium 89/90
38094	19	38515	43227	SURR	W08GR03691	Strontium 89/90
38078	1	38499	43277	BLANK		Tritium by Liq Sct column prep
38078	2	38499	43277	LCS		Tritium by Liq Sct column prep
38078	4	38499	43277	DUP	W08GR03684	Tritium by Liq Sct column prep
38078	3	38499	43277	MS	W08GR03684	Tritium by Liq Sct column prep
38078	6	38499	43277	SAMPLE	W08GR03687	Tritium by Liq Sct column prep
38078	7	38499	43277	SAMPLE	W08GR03688	Tritium by Liq Sct column prep
38078	8	38499	43277	SAMPLE	W08GR03689	Tritium by Liq Sct column prep
38078	9	38499	43277	SAMPLE	W08GR03690	Tritium by Liq Sct column prep
38078	10	38499	43277	SAMPLE	W08GR03691	Tritium by Liq Sct column prep
38078	11	38499	43277	SAMPLE	W08GR03692	Tritium by Liq Sct column prep
38078	12	38499	43277	SAMPLE	W08GR03693	Tritium by Liq Sct column prep
38078	13	38499	43277	SAMPLE	W08GR03694	Tritium by Liq Sct column prep
38078	14	38499	43277	SAMPLE	W08GR03695	Tritium by Liq Sct column prep
38078	15	38499	43277	SAMPLE	W08GR03696	Tritium by Liq Sct column prep
38432	1	38854	43341	BLANK		Gross Alpha/Gross Beta (AB32)
38432	2	38854	43341	LCS		Gross Alpha/Gross Beta (AB32)
38432	3	38854	43341	DUP	W08GR03687	Gross Alpha/Gross Beta (AB32)
38432	4	38854	43341	SAMPLE	W08GR03687	Gross Alpha/Gross Beta (AB32)
38432	5	38854	43341	SAMPLE	W08GR03688	Gross Alpha/Gross Beta (AB32)
38432	6	38854	43341	SAMPLE	W08GR03689	Gross Alpha/Gross Beta (AB32)
38432	7	38854	43341	SAMPLE	W08GR03690	Gross Alpha/Gross Beta (AB32)
38432	8	38854	43341	SAMPLE	W08GR03691	Gross Alpha/Gross Beta (AB32)
38432	9	38854	43341	SAMPLE	W08GR03692	Gross Alpha/Gross Beta (AB32)

38432	10	38854	43341	SAMPLE	W08GR03693	Gross Alpha/Gross Beta	(AB32)
38432	11	38854	43341	SAMPLE	W08GR03694	Gross Alpha/Gross Beta	(AB32)
38432	12	38854	43341	SAMPLE	W08GR03695	Gross Alpha/Gross Beta	(AB32)
38432	13	38854	43341	SAMPLE	W08GR03696	Gross Alpha/Gross Beta	(AB32)
38440	1	38857	43356	BLANK		Gross Alpha on Alpha Plateau	
38440	2	38857	43356	LCS		Gross Alpha on Alpha Plateau	
38440	3	38857	43356	DUP	W08GR03687	Gross Alpha on Alpha Plateau	
38440	4	38857	43356	SAMPLE	W08GR03687	Gross Alpha on Alpha Plateau	
38440	5	38857	43356	SAMPLE	W08GR03688	Gross Alpha on Alpha Plateau	
38440	6	38857	43356	SAMPLE	W08GR03689	Gross Alpha on Alpha Plateau	
38440	7	38857	43356	SAMPLE	W08GR03690	Gross Alpha on Alpha Plateau	
38440	8	38857	43356	SAMPLE	W08GR03691	Gross Alpha on Alpha Plateau	
38440	9	38857	43356	SAMPLE	W08GR03692	Gross Alpha on Alpha Plateau	
38440	10	38857	43356	SAMPLE	W08GR03693	Gross Alpha on Alpha Plateau	
38440	11	38857	43356	SAMPLE	W08GR03694	Gross Alpha on Alpha Plateau	
38440	12	38857	43356	SAMPLE	W08GR03695	Gross Alpha on Alpha Plateau	
38440	13	38857	43356	SAMPLE	W08GR03696	Gross Alpha on Alpha Plateau	

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>.

Report Date: 23-oct-2008

Report#: WSCF20081970

Report WGPPM/5.2

Page 2

WSCF

METHOD REFERENCES REPORT

Department: Radiochemistry

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-508-415	LA-508-415: OPERATION OF THE PROTEAN 2-INCH ALPHA/BETA COUNTING SYSTEM FOR GROSS
HEIS ALPHA_GPC	GROSS ALPHA GPC
HEIS BETA_GPC	GROSS BETA GPC
HEIS SRTOT_SEP_PRECIP_GPC	Protium 89/90
LA-508-421	LA-508-421: OPERATION OF THE TRI-CARB MODEL 2500TR LIQUID SCINTILLATION ANALYZER
HEIS ALPHA_LSC	A/B Liquid Scintillation
HEIS BETA_LSC	A/B Liquid Scintillation
HEIS TC99_3MDSK_LSC	TC99 by Liquid Scintillation
HEIS TRITIUM_EIE_LSC	Tritium Liquid Scintillation

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>.

Report Date: 23-oct-2008

Report#: WSCF20081970

Report WGPPM/5.2

Page 1

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-081
Sample # W08GR03687
Client ID: B1TPPO

TRENT
WSCF

Matrix: WATER

Group #: WSCF20081970
Department: Inorganic
Sampled: 09/11/08
Received: 09/11/08

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		7.40e-03	mg/L			1.00	2.0e-03		09/12/08

MDL = Minimum Detection Limit 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

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-081
Sample # W08GR03688
Client ID: B1TPP1

TRENT
 WSCF

Matrix: WATER

Group #: WSCF20081970
Department: Inorganic
Sampled: 09/11/08
Received: 09/11/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Hexavalent Chromium	18540-29-9	LA-265-403		5.80e-03	mg/L			1.00	2.0e-03		09/12/08

MDL=Minimum Detection Limit 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
Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-081
Sample # W08GR03689
Client ID: B1TPP2

TRENT
 WSCF

Matrix: WATER

Group #: WSCF20081970
Department: Inorganic
Sampled: 09/11/08
Received: 09/11/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Hexavalent Chromium	18540-29-9	LA-265-403		6.60e-03	mg/L			1.00	2.0e-03		09/12/08

MDL=Minimum Detection Limit 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

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-081
Sample # W08GR03690
Client ID: BITPP3

TRENT
WSCF

Matrix: WATER

Group #: WSCF20081970
Department: Inorganic
Sampled: 09/11/08
Received: 09/11/08

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		0.0100	mg/L			1.00	2.0e-03		09/12/08

MDL = Minimum Detection Limit

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

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-081
Sample # W08GR03691
Client ID: B1TPP4

TRENT
WSCF

Matrix: WATER

Group #: WSCF20081970
Department: Inorganic
Sampled: 09/11/08
Received: 09/11/08

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		8.30e-03	mg/L			1.00	2.0e-03		09/12/08

MDL = Minimum Detection Limit 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
Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-081
Sample # W08GR03692
Client ID: B1TPP5

TRENT
WSCF

Matrix: WATER

Group #: WSCF20081970
Department: Inorganic
Sampled: 09/11/08
Received: 09/11/08

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		0.0160	mg/L			1.00	2.0e-03		09/12/08

MDL = Minimum Detection Limit 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

Groundwater Remediation Program

19 of 52

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-081
Sample # W08GR03693
Client ID: B1TPP6

TRENT
WSCF

Matrix: WATER

Group #: WSCF20081970
Department: Inorganic
Sampled: 09/11/08
Received: 09/11/08

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	U	< 2.00e-03	mg/L			1.00	2.0e-03		09/12/08

MDL = Minimum Detection Limit 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
Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-081
Sample # W08GR03694
Client ID: B1TPP7

TRENT
 WSCF

Matrix: WATER

Group #: WSCF20081970
Department: Inorganic
Sampled: 09/11/08
Received: 09/11/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Hexavalent Chromium											
Hexavalent Chromium	18540-29-9	LA-285-403		0.0108	mg/L			1.00	2.0e-03		09/12/08

MDL = Minimum Detection Limit 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
 Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-081
Sample # W08GR03695
Client ID: B1TPP8

TRENT
 WSCF

Matrix: WATER

Group #: WSCF20081970
Department: Inorganic
Sampled: 09/11/08
Received: 09/11/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Hexavalent Chromium	18540-29-9	LA-265-403		0.0145	mg/L			1.00	2.0e-03		09/12/08

MDL = Minimum Detection Limit 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
Groundwater Remediation Program

22 of 52

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-081
Sample # W08GR03696
Client ID: BITPRO

TRENT
WSCF

Matrix: WATER

Group #: WSCF20081970
Department: Inorganic
Sampled: 09/11/08
Received: 09/11/08

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		7.80e-03	mg/L			1.00	2.0e-03		09/12/08

MDL=Minimum Detection Limit 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
 Groundwater Remediation Program

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081970
 Matrix: WATER
 Test: Hexavalent chromium

Sample Date: 09/11/08
 Receive Date: 09/11/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03687											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Hexavalent chromium	18540-29-9	0.0078		RPD			5.263	15.000		09/12/08
MS	Hexavalent chromium	18540-29-9	0.0413	103.250	% Recov	85.000	115.000				09/12/08
BATCH QC											
BLANK	Hexavalent chromium	18540-29-9	<0.002	n/a	mg/L	0.000	2.000			U	09/12/08
BLANK	Hexavalent chromium	18540-29-9	<0.002	n/a	mg/L	0.000	2.000			U	09/12/08
BLANK	Hexavalent chromium	18540-29-9	<0.002	n/a	mg/L	0.000	2.000			U	09/12/08
LCS	Hexavalent chromium	18540-29-9	0.0490	98.000	% Recov	80.000	120.000				09/12/08

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-081
Sample # W08GR03687
Client ID: BITPP0

TRENT
 WSCF

Matrix: WATER

Group #: WSCF20081970
Department: Radiochemistry
Sampled: 09/11/08
Received: 09/11/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Gross Alpha on Alpha Plateau											
Gross alpha on alpha plateau	12587-46-1	LA-508-415		1.80	pCi/L	+ -0.990	pCi/L	1.00	1.2		10/20/08
Gross Alpha/Gross Beta (AB32)											
Gross beta	12587-47-2	LA-508-415		6.80	pCi/L	+ -1.50	pCi/L	1.00	1.7		10/16/08
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415	U	-1.60	pCi/L	+ -1.60	pCi/L	1.00	0.96		09/22/08
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		90.4	Percent			1.00	0.0		09/22/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		2.80e +03	pCi/L	+ -588	pCi/L	1.00	2.2e +02		10/10/08

MDL = Minimum Detection Limit 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

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-081
Sample # W08GR03688
Client ID: BITPP1

TRENT
 WSCF

Matrix: WATER

Group #: WSCF20081970
Department: Radiochemistry
Sampled: 09/11/08
Received: 09/11/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Gross Alpha on Alpha Plateau											
Gross alpha on alpha plateau	12587-46-1	LA-508-415	U	0.700	pCi/L	+ -0.840	pCi/L	1.00	1.3		10/20/08
Gross Alpha/Gross Beta (AB32)											
Gross beta	12587-47-2	LA-508-415		6.40	pCi/L	+ -1.47	pCi/L	1.00	1.8		10/16/08
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415	U	-1.60	pCi/L	+ -1.65	pCi/L	1.00	0.98		09/22/08
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		88.4	Percent			1.00	0.0		09/22/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		2.60e +03	pCi/L	+ -572	pCi/L	1.00	2.2e +02		10/10/08

MDL = Minimum Detection Limit

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

Groundwater Remediation Program

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-081
Sample # W08GR03689
Client ID: BITPP2

TRENT
WSCF

Matrix: WATER

Group #: WSCF20081970
Department: Radiochemistry
Sampled: 09/11/08
Received: 09/11/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Gross Alpha on Alpha Plateau											
Gross alpha on alpha plateau	12587-46-1	LA-508-415	U	0.540	pCi/L	+ -0.772	pCi/L	1.00	1.3		10/20/08
Gross Alpha/Gross Beta (AB32)											
Gross beta	12587-47-2	LA-508-415		6.80	pCi/L	+ -1.50	pCi/L	1.00	1.8		10/16/08
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415	U	0.310	pCi/L	+ -1.59	pCi/L	1.00	1.0		09/22/08
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		85.6	Percent			1.00	0.0		09/22/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		2.80e + 03	pCi/L	+ -588	pCi/L	1.00	2.2e + 02		10/10/08

MDL=Minimum Detection Limit

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

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-081
Sample # W08GR03690
Client ID: BITPP3

TRENT
 WSCF

Matrix: WATER

Group #: WSCF20081970
Department: Radiochemistry
Sampled: 09/11/08
Received: 09/11/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Gross Alpha on Alpha Plateau											
Gross alpha on alpha plateau	12587-46-1	LA-508-415	U	0.550	pCi/L	+ -0.660	pCi/L	1.00	1.0		10/20/08
Gross Alpha/Gross Beta (AB32)											
Gross beta	12587-47-2	LA-508-415		40.0	pCi/L	+ -4.80	pCi/L	1.00	1.6		10/16/08
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415		16.0	pCi/L	+ -2.72	pCi/L	1.00	0.97		09/22/08
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		89.3	Percent			1.00	0.0		09/22/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		610	pCi/L	+ -195	pCi/L	1.00	2.2e +02		10/10/08

MDL = Minimum Detection Limit

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

Groundwater Remediation Program

28 of 52

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-081
Sample # W08GR03691
Client ID: B1TPP4

TRENT
 WSCF

Matrix: WATER

Group #: WSCF20081970
Department: Radiochemistry
Sampled: 09/11/08
Received: 09/11/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Gross Alpha on Alpha Plateau											
Gross alpha on alpha plateau	12587-46-1	LA-508-415	U	1.10	pCi/L	+ -1.01	pCi/L	1.00	1.5		10/20/08
Gross Alpha/Gross Beta (AB32)											
Gross beta	12587-47-2	LA-508-415		26.0	pCi/L	+ -3.38	pCi/L	1.00	1.8		10/16/08
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415		3.50	pCi/L	+ -1.54	pCi/L	1.00	0.96		09/22/08
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		91.0	Percent			1.00	0.0		09/22/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		2.00e +04	pCi/L	+ -4.00e +03	pCi/L	1.00	2.2e +02		10/10/08

MDL=Minimum Detection Limit

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

Groundwater Remediation Program

29 of 52

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-081
Sample # W08GR03692
Client ID: B1TPP5

TRENT
 WSCF

Matrix: WATER

Group #: WSCF20081970
Department: Radiochemistry
Sampled: 09/11/08
Received: 09/11/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Gross Alpha on Alpha Plateau											
Gross alpha on alpha plateau	12587-46-1	LA-508-415	U	0.350	pCi/L	+0.672	pCi/L	1.00	1.2		10/20/08
Gross Alpha/Gross Beta (AB32)											
Gross beta	12587-47-2	LA-508-415		19.0	pCi/L	+2.66	pCi/L	1.00	1.7		10/16/08
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415	U	0.830	pCi/L	+2.52	pCi/L	1.00	0.93		09/18/08
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		89.6	Percent			1.00	0.0		09/18/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		1.90e+04	pCi/L	+3.80e+03	pCi/L	1.00	2.2e+02		10/10/08

MDL=Minimum Detection Limit 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

Groundwater Remediation Program

30 of 52

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-081
Sample # W08GR03693
Client ID: B1TPP6

TRENT
 WSCF

Matrix: WATER

Group #: WSCF20081970
Department: Radiochemistry
Sampled: 09/11/08
Received: 09/11/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Gross Alpha on Alpha Plateau											
Gross alpha on alpha plateau	12587-46-1	LA-508-415	U	0.240	pCi/L	+ -0.576	pCi/L	1.00	0.99		10/20/08
Gross Alpha/Gross Beta (AB32)											
Gross beta	12587-47-2	LA-508-415		4.30	pCi/L	+ -1.25	pCi/L	1.00	1.6		10/16/08
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415	U	-0.0790	pCi/L	+ -0.790	pCi/L	1.00	0.90		09/18/08
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		92.5	Percent			1.00	0.0		09/18/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		290	pCi/L	+ -148	pCi/L	1.00	2.2e +02		10/10/08

MDL=Minimum Detection Limit 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

Groundwater Remediation Program

31 of 52

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-081
Sample # W08GR03694
Client ID: B1TPP7

TRENT
 WSCF

Matrix: WATER

Group #: WSCF20081970
Department: Radiochemistry
Sampled: 09/11/08
Received: 09/11/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Gross Alpha on Alpha Plateau											
Gross alpha on alpha plateau	12587-46-1	LA-508-415	U	0.290	pCi/L	+ -0.698	pCi/L	1.00	1.2		10/20/08
Gross Alpha/Gross Beta (AB32)											
Gross beta	12587-47-2	LA-508-415		12.0	pCi/L	+ -1.92	pCi/L	1.00	1.7		10/16/08
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415		2.00	pCi/L	+ -2.58	pCi/L	1.00	0.93		09/18/08
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		90.1	Percent			1.00	0.0		09/18/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		4.80e +03	pCi/L	+ -1.01e +03	pCi/L	1.00	2.2e +02		10/10/08

MDL = Minimum Detection Limit 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
 Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-081
Sample # W08GR03695
Client ID: BITPP8

TRENT
 WSCF

Matrix: WATER

Group #: WSCF20081970
Department: Radiochemistry
Sampled: 09/11/08
Received: 09/11/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Gross Alpha on Alpha Plateau											
Gross alpha on alpha plateau	12587-46-1	LA-508-415	U	0.560	pCi/L	+ -0.801	pCi/L	1.00	1.3		10/20/08
Gross Alpha/Gross Beta (AB32)											
Gross beta	12587-47-2	LA-508-415		15.0	pCi/L	+ -2.25	pCi/L	1.00	1.8		10/16/08
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415	U	-1.80	pCi/L	+ -2.14	pCi/L	1.00	0.87		09/18/08
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		95.9	Percent			1.00	0.0		09/18/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		7.90e +03	pCi/L	+ -1.58e +03	pCi/L	1.00	2.2e +02		10/10/08

MDL=Minimum Detection Limit 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
 Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-081
Sample # W08GR03696
Client ID: BITPRO TRENT
WSCF

Matrix: WATER

Group #: WSCF20081970
Department: Radiochemistry
Sampled: 09/11/08
Received: 09/11/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Gross Alpha on Alpha Plateau											
Gross alpha on alpha plateau	12587-46-1	LA-508-415	U	0.290	pCi/L	+0.696	pCi/L	1.00	1.2		10/20/08
Gross Alpha/Gross Beta (AB32)											
Gross beta	12587-47-2	LA-508-415		6.30	pCi/L	+1.45	pCi/L	1.00	1.7		10/16/08
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415	U	-1.90	pCi/L	+2.15	pCi/L	1.00	0.86		09/18/08
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		96.9	Percent			1.00	0.0		09/18/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		2.70e+03	pCi/L	+594	pCi/L	1.00	2.2e+02		10/10/08

MDL = Minimum Detection Limit 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

Groundwater Remediation Program

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081970
 Matrix: WATER
 Test: Gross Alpha on Alpha Plateau

Sample Date: 09/11/08
 Receive Date: 09/11/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03687											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Gross alpha on alpha plateau	12587-46-1	U1.3		RPD			n/a	20.000		10/20/08
BATCH QC											
BLANK	Gross alpha on alpha plateau	12587-46-1-ap	U9.0E-02	n/a	pCi/L	-100.000	100.000				10/20/08
LCS	Gross alpha on alpha plateau	12587-46-1-ap	39.5	101.962	% Recov	80.000	120.000				10/20/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081970
 Matrix: WATER
 Test: Gross Alpha/Gross Beta (AB32)

Sample Date: 09/11/08
 Receive Date: 09/11/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03687											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Gross beta	12587-47-2	6.3		RPD			7.634	20.000		10/16/08
BATCH QC											
BLANK	Gross beta	12587-47-2	U-4.3E-01	n/a	pCi/L	-10.000	10.000				10/16/08
LCS	Gross beta	12587-47-2	120.0	106.952	% Recov	80.000	120.000				10/16/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081970
 Matrix: WATER
 Test: Strontium 89/90

Sample Date: 09/11/08
 Receive Date: 09/11/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03692											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Sr-85 Tracer by Beta Counting	SR85	91.0	91.000	% Recov	30.000	105.000				09/18/08
DUP	Strontium-89/90	SR-RAD	U2.7E-01		RPD			n/a	20.000		09/18/08
SURR	Sr-85 Tracer by Beta Counting	SR85	89.6	89.600	% Recov	30.000	105.000				09/18/08
Lab ID: W08GR03693											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Sr-85 Tracer by Beta Counting	SR85	92.5	92.500	% Recov	30.000	105.000				09/18/08
Lab ID: W08GR03694											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Sr-85 Tracer by Beta Counting	SR85	90.1	90.100	% Recov	30.000	105.000				09/18/08
Lab ID: W08GR03695											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Sr-85 Tracer by Beta Counting	SR85	95.9	95.900	% Recov	30.000	105.000				09/18/08
Lab ID: W08GR03696											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Sr-85 Tracer by Beta Counting	SR85	96.9	96.900	% Recov	30.000	105.000				09/18/08
BATCH QC											
BLANK	Sr-85 Tracer by Beta Counting	SR85	84.5	84.500	% Recov	30.000	105.000				09/18/08
BLANK	Strontium-89/90	10098-97-2	1.1	1.100	pCi/L	-10.000	100.000				09/18/08
LCS	Sr-85 Tracer by Beta Counting	SR85	91	91.000	% Recov	30.000	105.000				09/18/08
LCS	Strontium-89/90	10098-97-2	145	104.467	% Recov	80.000	120.000				09/18/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081970
 Matrix: WATER
 Test: Strontium 89/90

Sample Date: 08/21/08
 Receive Date: 08/25/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03477											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Sr-85 Tracer by Beta Counting	SR85	82.3	82.300	% Recov	30.000	105.000				09/22/08
DUP	Strontium-89/90	SR-RAD	U-5.0E-01		RPD			n/a	20.000		09/22/08
Lab ID: W08GR03687											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Sr-85 Tracer by Beta Counting	SR85	90.4	90.400	% Recov	30.000	105.000				09/22/08
Lab ID: W08GR03688											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Sr-85 Tracer by Beta Counting	SR85	88.4	88.400	% Recov	30.000	105.000				09/22/08
Lab ID: W08GR03689											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Sr-85 Tracer by Beta Counting	SR85	85.6	85.600	% Recov	30.000	105.000				09/22/08
Lab ID: W08GR03690											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Sr-85 Tracer by Beta Counting	SR85	89.3	89.300	% Recov	30.000	105.000				09/22/08
Lab ID: W08GR03691											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Sr-85 Tracer by Beta Counting	SR85	91.0	91.000	% Recov	30.000	105.000				09/22/08
BATCH QC											
BLANK	Sr-85 Tracer by Beta Counting	SR85	93.2	93.200	% Recov	30.000	105.000				09/22/08
BLANK	Strontium-89/90	10098-97-2	U-9.4E-01	n/a	pCi/L	-10.000	100.000				09/22/08
LCS	Sr-85 Tracer by Beta Counting	SR85	104	104.000	% Recov	30.000	105.000				09/22/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081970
Matrix: WATER
Test: Strontium 89/90

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	Strontium-89/90	10098-97-2	136	97.962	% Recov	80.000	120.000				09/22/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081970
 Matrix: WATER
 Test: Tritium by Liq Sct column prep

Sample Date: 09/11/08
 Receive Date: 09/11/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03684											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Tritium	10028-17-8	U3.1E+01		RPD			n/a	20.000		10/10/08
MS	Tritium	10028-17-8	19405.0	86.419	% Recov	75.000	125.000				10/10/08
BATCH QC											
BLANK	Tritium	10028-17-8	U5.9E+01	n/a	pCi/L	-10.000	1000.000				10/10/08
LCS	Tritium	10028-17-8	3270.0	96.674	% Recov	80.000	120.000				10/10/08

M4W41-SLF-08-1176

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 12 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

10/24/08
td

Groundwater Remediation Program

Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 123631/ES10
Group#: 20081970
Project#: F08-081
Proj Mgr: Steve Trent E6-35
Phone: 373-5869

The following samples were received from you on 09/11/08. 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
W08GR03687	B1TPP0	TRENT @AB-32 @ALPHA	Water @H3-33 @SR89_90 CR+6	09/11/08
W08GR03688	B1TPP1	TRENT @AB-32 @ALPHA	Water @H3-33 @SR89_90 CR+6	09/11/08
W08GR03689	B1TPP2	TRENT @AB-32 @ALPHA	Water @H3-33 @SR89_90 CR+6	09/11/08
W08GR03690	B1TPP3	TRENT @AB-32 @ALPHA	Water @H3-33 @SR89_90 CR+6	09/11/08
W08GR03691	B1TPP4	TRENT @AB-32 @ALPHA	Water @H3-33 @SR89_90 CR+6	09/11/08
W08GR03692	B1TPP5	TRENT @AB-32 @ALPHA	Water @H3-33 @SR89_90 CR+6	09/11/08
W08GR03693	B1TPP6	TRENT @AB-32 @ALPHA	Water @H3-33 @SR89_90 CR+6	09/11/08
W08GR03694	B1TPP7	TRENT @AB-32 @ALPHA	Water @H3-33 @SR89_90 CR+6	09/11/08
W08GR03695	B1TPP8	TRENT @AB-32 @ALPHA	Water @H3-33 @SR89_90 CR+6	09/11/08
W08GR03696	B1TPR0	TRENT @AB-32 @ALPHA	Water @H3-33 @SR89_90 CR+6	09/11/08

Test Acronym Description

Test Acronym	Description
@AB-32	Gross Alpha/Gross Beta (AB32)
@ALPHA	Gross Alpha on Alpha Plateau
@H3-33	Tritium by Liq Sct column prep
@SR89_90	Strontium 89/90
CR+6	Hexavalent chromium

COLLECTOR NCO Sampler <i>Herrick/White</i>		COMPANY CONTACT Trent, SJ		TELEPHONE NO. 373-5869		PROJECT COORDINATOR WIDRIG, DL		PRICE CODE 7N		DATA TURNAROUND 45 Days / 45 Days	
SAMPLING LOCATION A-C6227-5		PROJECT DESIGNATION Aquifer Tube Installation Sampling and Analysis in the 100-BC-5 OU				SAF NO. F08-081		AIR QUALITY <input type="checkbox"/>			
ICE CHEST NO.		FIELD LOGBOOK NO. HNF-N-451-3/P		ACTUAL SAMPLE DEPTH		COA 123631ES10		METHOD OF SHIPMENT GOVERNMENT VEHICLE			
SHIPPED TO Waste Sampling & Characterization 20081970		OFFSITE PROPERTY NO. N/A				BILL OF LADING/AIR BILL NO. N/A					

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION		Cool-4C	None	HNO3 to pH <2	HNO3 to pH <2				
		TYPE OF CONTAINER		aG	G	G/P	G/P				
		NO. OF CONTAINER(S)		1	1	1	1				
		VOLUME		250mL	250mL	1L	500mL				
		SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS		Chromium Hex - 7196; 316030	Tritium - Ion Ex;	Strontium- 89,90 - Total Sr; 030058	Gross Alpha (Gross alpha) Gross Beta (Gross beta) 031628		

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B1TPPO <i>W086103687</i>	WATER	9-11-08	1127	-	-	-	-				

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	<div style="font-size: 48px; font-weight: bold; opacity: 0.5;">ICED</div>	
<i>ARMSTRONG/SJ/4</i>	9-11-08 / 1425	<i>TA FRAZIER</i>	9/11/08 1425		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

43 of 52

COLLECTOR NCO Sampler <i>J Herrick / M White</i>	COMPANY CONTACT Trent, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 7N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION A-C6228-M	PROJECT DESIGNATION Aquifer Tube Installation Sampling and Analysis in the 100-BC-5 OU		SAF NO. F08-081	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO. <i>HNF-N-451-3</i>	ACTUAL SAMPLE DEPTH	COA 123631ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	Cool-4C	None	HNO3 to pH <2	HNO3 to pH <2								
		TYPE OF CONTAINER	aG	G	G/P	G/P								
		NO. OF CONTAINER(S)	1	1	1	1								
		VOLUME	250mL	250mL	1L	500mL								
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS		Chromium Hex - 7196;	Tritium - Ion Ex;	Strontium-89,90 - Total Sr;	Gross Alpha (Gross alpha)	Gross Beta (Gross beta)						
				<i>3160030</i>		<i>030008</i>	<i>031628</i>							

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1TPP1	3688 WATER	9-11-08	1146	-	-	-	-					

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
<i>ARMINTA/ALG</i>	<i>9-11-08/1425</i>	<i>TA FRAZIER</i>
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN

ICED

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

44 OF 52

COLLECTOR NCO Sampler <i>2 Henckle / M White</i>		COMPANY CONTACT Trent, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 7N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION A-C6229-D		PROJECT DESIGNATION Aquifer Tube Installation Sampling and Analysis in the 100-BC-5 OU		SAF NO. F08-081	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.		FIELD LOGBOOK NO. <i>HNF-N-451-3</i>	ACTUAL SAMPLE DEPTH	COA 123631E510	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	Cool-4C	None	HNO3 to pH <2	HNO3 to pH <2					
		TYPE OF CONTAINER	aG	G	G/P	G/P					
		NO. OF CONTAINER(S)	1	1	1	1					
		VOLUME	250mL	250mL	1L	500mL					
		SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	Chromium Hex - 7196;	Tritium - Ion Ex;	Strontium-89,90 - Total Sr;	Gross Alpha (Gross alpha) Gross Beta (Gross beta)				

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B1TPP2	3689 WATER	9-11-08	11:36	/	/	/	/				

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	ICED	
<i>Henckle</i>	9-11-08/1425	<i>TA Krazim</i>	9/11/08 1425		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

45 OF 52

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				F08-081-008	PAGE 1 OF 1		
COLLECTOR NCO Sampler <i>J. Herrick / MA White</i>		COMPANY CONTACT Trent, SJ		TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL		PRICE CODE 7N	DATA TURNAROUND 45 Days / 45 Days	
SAMPLING LOCATION B-C6230-S		PROJECT DESIGNATION Aquifer Tube Installation Sampling and Analysis in the 100-BC-5 OU			SAF NO. F08-081		AIR QUALITY <input type="checkbox"/>		
ICE CHEST NO.		FIELD LOGBOOK NO. <i>HNF-N-451-3</i>		ACTUAL SAMPLE DEPTH		COA 123631ES10		METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A			BILL OF LADING/AIR BILL NO. N/A				
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION		Cool-4C	None	HNO3 to pH <2	HNO3 to pH <2		
		TYPE OF CONTAINER		aG	G	G/P	G/P		
		NO. OF CONTAINER(S)		1	1	1	1		
		VOLUME		250mL	250mL	1L	500mL		
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS		Chromium Hex - 7195;	Tritium - Ion Ex;	Strontium-89,90 - Total Sr;	Gross Alpha (Gross alpha) Gross Beta (Gross beta)		
SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME					
B1TPP3 3690		WATER	9-11-08	1041	✓	✓	✓	✓	
CHAIN OF POSSESSION		SIGN/ PRINT NAMES			SPECIAL INSTRUCTIONS				
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME				
<i>MA White, MA White</i>		<i>9-11-08 1425</i>	<i>TA RAZIM Juss, Jig</i>		<i>9/11/08 1425</i>				
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME				
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME				
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME				
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME				
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME				
LABORATORY SECTION		RECEIVED BY			TITLE		DATE/TIME		
FINAL SAMPLE DISPOSITION		DISPOSAL METHOD			DISPOSED BY		DATE/TIME		

ICED

46 of 52

COLLECTOR NCO Sampler <i>J. Herrick/MA White</i>		COMPANY CONTACT Trent, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 7N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION B-C6231-M		PROJECT DESIGNATION Aquifer Tube Installation Sampling and Analysis in the 100-BC-5 OU		SAF NO. F08-081	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.		FIELD LOGBOOK NO. <i>HNF-N-451-3</i>	ACTUAL SAMPLE DEPTH	COA 123631ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	Cool--4C	None	HNO3 to pH <2	HNO3 to pH <2									
		TYPE OF CONTAINER	aG	G	G/P	G/P									
		NO. OF CONTAINER(S)	1	1	1	1									
		VOLUME	250mL	250mL	1L	500mL									
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	Chromium Hex - 7196; <i>516030</i>	Tritium - Ion Ex;	Strontium-89,90 -- Total Sr; <i>530008</i>	Gross Alpha (Gross alpha) Gross Beta (Gross beta) <i>031628</i>									

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B1TPP4	3691 WATER	9-11-08	1030	✓	✓	✓	✓						

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
<i>MA White</i>	<i>9/11/08 1425</i>	<i>TA FROZIM</i>	<i>9/11/08 1425</i>	

ICED

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

47 of 52

COLLECTOR NCO Sampler <i>J. Herrick / MA White</i>		COMPANY CONTACT Trent, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 7N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION B-C6232-D		PROJECT DESIGNATION Aquifer Tube Installation Sampling and Analysis in the 100-BC-5 OU		SAF NO. F08-081	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.		FIELD LOGBOOK NO. <i>HNF-N-451-3</i>	ACTUAL SAMPLE DEPTH	COA 123631ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	Cool-4C	None	HNO3 to pH <2	HNO3 to pH <2				
		TYPE OF CONTAINER	aG	G	G/P	G/P				
		NO. OF CONTAINER(S)	1	1	1	1				
		VOLUME	250mL	250mL	1L	500mL				
		SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	Chromium Hex - 7196; <i>074075</i>	Tritium - Ion Ex;	Strontium- 89,90 - Total Sr; <i>020008</i>	Gross Alpha (Gross alpha) Gross Beta (Gross beta) <i>028946</i>			

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B1TPP5 3692	WATER	9-11-08	1050	✓	✓	✓	✓			

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
<i>MA White</i>	<i>9-11-08 1425</i>	<i>W. Hudson</i>	<i>9/11/08 1425</i>	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

ICED

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

48 of 52

Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F08-081-011

PAGE 1 OF 1

COLLECTOR NCO Sampler	COMPANY CONTACT Trent, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 7N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C-G6233-5	PROJECT DESIGNATION Aquifer Tube Installation Sampling and Analysis in the 100-BC-5 OU		SAF NO. F08-081	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-451-3	ACTUAL SAMPLE DEPTH	COA 123631ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue Y=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	Cool-4C	None	HNO3 to pH <2	HNO3 to pH <2				
		TYPE OF CONTAINER	aG	G	G/P	G/P				
		NO. OF CONTAINER(S)	1	1	1	1				
		VOLUME	250mL	250mL	1L	500mL				
		SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	Chromium Hex - 7196;	Tritium - Ion Ex;	Strontium-89,90 - Total Sr;	Gross Alpha (Gross alpha) Gross Beta (Gross beta)			

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B1TPP6 3693	WATER	9-11-08	0924	✓	✓	✓	✓			

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
MA White	MA White	9-11-08	MA White	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
MA White	9-11-08 1425	BA Hyder	9/11/08 1425	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

ICED

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

49 of 52

COLLECTOR NCO Sampler	COMPANY CONTACT Trent, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 7N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C-C6234-M	PROJECT DESIGNATION Aquifer Tube Installation Sampling and Analysis in the 100-BC-5 OU		SAF NO. F08-081	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-451-3	ACTUAL SAMPLE DEPTH	COA 123631E510	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	Cool-4C	None	HNO3 to pH <2	HNO3 to pH <2								
		TYPE OF CONTAINER	aG	G	G/P	G/P								
		NO. OF CONTAINER(S)	1	1	1	1								
		VOLUME	250mL	250mL	1L	500mL								
		SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	Chromium Hex - 7196;	Tritium - Ion Ex;	Szrntium- 89,90 - Total Sr;	Gross Alpha (Gross alpha) Gross Beta (Gross beta)							

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1TPP7 3694	WATER	9-11-08	0935	✓	✓	✓	✓					

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	ICED	
MA White - ma.white	9-11-08 1425	UP Hunter	9/11/08 1425		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

50 of 52

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				F08-081-013	PAGE 1 OF 1	
COLLECTOR NCO Sampler <i>J. Herrick / MA White</i>		COMPANY CONTACT Trent, SJ		TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL		PRICE CODE 7N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C-C6235-D		PROJECT DESIGNATION Aquifer Tube Installation Sampling and Analysis in the 100-BC-5 OU			SAF NO. F08-081		AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.		FIELD LOGBOOK NO. <i>HNF-N-451-3</i>	ACTUAL SAMPLE DEPTH		COA 123631ES10		METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A			BILL OF LADING/AIR BILL NO. N/A			
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)		PRESERVATION	Cool~4C	None	HNO3 to pH <2	HNO3 to pH <2	
			TYPE OF CONTAINER	aG	G	G/P	G/P	
			NO. OF CONTAINER(S)	1	1	1	1	
			VOLUME	250mL	250mL	1L	500mL	
	SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	Chromium Hex - 7196; <i>824075</i>	Tritium - Ion Ex;	Sr-90 - Total Sr; <i>057107</i>	Gross Alpha (Gross alpha) Gross Beta (Gross beta) <i>822946</i>	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME					
BITPP8 <i>3695</i>	WATER	9-11-08	0946	✓	✓	✓	✓	
CHAIN OF POSSESSION		SIGN/ PRINT NAMES			SPECIAL INSTRUCTIONS			
RELINQUISHED BY/REMOVED FROM <i>MA White MA White</i>	DATE/TIME <i>9-11-08 1425</i>	RECEIVED BY/STORED IN <i>DA Hudson</i>	DATE/TIME <i>9/11/08 1425</i>	ICED				
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME					
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME					
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME					
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME					
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME					
LABORATORY SECTION	RECEIVED BY	TITLE			DATE/TIME			
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY			DATE/TIME			

51 of 52

COLLECTOR NCO Sampler <i>J Horneck / m white</i>		COMPANY CONTACT Trent, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 7N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION A-C6228-M		PROJECT DESIGNATION Aquifer Tube Installation Sampling and Analysis in the 100-BC-5 OU		SAF NO. F08-081	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.		FIELD LOGBOOK NO. <i>HNF-AI-451-3</i>	ACTUAL SAMPLE DEPTH	COA 123631E510	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	Cool~4C	None	HNO3 to pH <2	HNO3 to pH <2						
		TYPE OF CONTAINER	aG	G	G/P	G/P						
		NO. OF CONTAINER(S)	1	1	1	1						
		VOLUME	250mL	250mL	1L	500mL						
		SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	Chromium Hex - 7196;	Tritium - Ion Ex;	Sr-90 - Total Sr;	Gross Alpha (Gross alpha) Gross Beta (Gross beta)					

316250 *530058* *531628*

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
BITPRO 3696	WATER	9-11-08	1146	-	-	-	-			

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
<i>ARM - Entry / 9/11/08</i>	<i>9-11-08 / 1425</i>	<i>MA Hudson</i>	<i>9/11/08 1425</i>	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

ICED

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

52 of 52