RECEIVED NOVEMBER 11, 2008

0080184

Fluor Hanford
WSCF Analytical Lab
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Richland, Washington 99352
Telephone 373-7495
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FLUOR®

M4W41-SLF-08-1237

November 11, 2008

Mr. M. A. Neely, Manager
Analytical Services
CH2M HILL Plateau Remediation Contract
1933 Jadwin MSIN B6-06
Richland, WA 99352

Dear Mike:

FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20082084 – SAF NUMBER F08-086

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 attachments for sample delivery group WSCF20082084:

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

Very truly yours,

S. L. Fitzgerald
WSCF Analytical Lab

SLF/grf

Attachments 5

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. Meznarich	S3-30	File/LB	
P. D. Mix	S3-30		

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ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20082084
Data Deliverable Date: 10-nov-2008
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
F08-086	B1TRD3	W08GR03909	WATER
	B1TRD6	W08GR03910	WATER
	B1TRH8	W08GR03912	WATER
	B1TRK0	W08GR03911	WATER

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ATTACHMENT 2

NARRATIVE

Consisting of 4 pages
Including cover page

Introduction

Four (4) S&GRP samples were received at the WSCF Laboratory on September 25, 2008. With exception of one anion analysis (sample# B1TRD3), samples were analyzed 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 copy of Issue Resolution Form #08-181, documenting the cancellation of an anion analysis due to a pH <1, is included as Attachment 3. 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.

Per authorization given by Dana Widrig via email on September 26, 2008, the WSCF laboratory filtered sample B1TRK0 before analysis by 6010 (ICP).

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 15 through 17, for a complete listing of approved analytical methods.

Inorganic Comments

Anions – 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. See page 20 for QC details.

- Duplicate, Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1TRF0 (SDG# 20082082, SAF# F08-086).
- The anion analysis on sample# B1TRD3 was cancelled due to nitric acid preservative. (See attachment 3).

All QC controls are within the established limits.

ICP-AES Metals – 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 pages 21 through 24 for QC details. Analytical Note(s):

- Matrix Spikes and Matrix Spike Duplicates were analyzed on samples B1TRJ7 (SDG# 20082053, SAF# F08-086) and B1TRD5 (SDG# 20082068, SAF# F08-086).

All QC controls are within the established limits.

ICP-MS Metals – 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 25 for QC details. Analytical Note(s):

- Matrix Spikes and Matrix Spike Duplicates were analyzed on samples B1WYD1 and B1WYC5 (SDG# 20082000).

All QC controls are within the established limits.

Organic Comments

VOA – 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 pages 28 through 30 for QC details.

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1X216 (SDG# 20082074, SAF# F08-146).

All QC controls are within the established limits.

Rad Chem – There are no hold times associated with WSCF's radiochemical methods. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 33 through 39 for QC details. Analytical Note(s):

- Gross Alpha & Beta: Duplicate QC was analyzed on sample# B1TRD8 (SDG# 20082082, SAF# F08-086).

- Neptunium by AEA: Matrix Spike, Matrix Spike Duplicate and Duplicate were analyzed on sample# B1TRD8 (SDG# 20082082, SAF# F08-086). Neptunium LCS: The Neptunium recovery was slightly less than the established laboratory limit of 80% at 74.6%.

- Sr 89/90 and 85 (tracer): Duplicate QC was analyzed on sample# B1WPF3 (SDG# 20082048, SAF# F08-146).

- TC-99 by LSC: Matrix Spike and Duplicate were analyzed on sample# B1X5P9, (SDG# 20082021, SAF# F08-149).

- Tritium Analysis by LSC: Matrix Spike and Duplicate were analyzed on sample# B1WPV6, (SDG# 20082062, SAF# F08-154).

- Uranium Isotopic by AEA: Duplicate QC was analyzed on sample# B1TRD5, (SDG# 20082068, SAF# F08-086).

All other QC controls are within the established limits.

I certify that this data package is in compliance with the MOA, 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-08-1237

ATTACHMENT 3

ISSUE RESOLUTION FORM

Consisting of 2 pages
Including cover page

ISSUE RESOLUTION FORM

FH TRACKING NUMBER: 08-181

Date : **9-26-2008** SAF No. **F08-086**

SDG: **WSCF20082084** LOGIN No.: TEST: ANIONS (@IC-30)

Sample No.(s) **B1TRD3**

W08GR03909

Submitted By:	WW Baird	Submitted To:	H Hampt
Phone No.	373-7189	Phone No.	376-4319
Fax No.	372-0456	Fax No	

ISSUE	PROPOSED RESOLUTION
Sample was collected in the field on September 25, 2008 and submitted to the WSCF Laboratory on September 25, 2008, for Anion analysis. The sample label on the bottle indicated that the bottle had been cooled to 4 degrees C but had also been preserved with HNO3. When the pH was checked it turned out to be <1. There was not any unpreserved sample available from other sample bottles to perform the anion analysis.	Cancel the anion analysis for sample B1TRD3 and comment in the case narrative.

GRP COMMENTS

Accept proposed resolution.

Heidi Hampt 9/30/08
Signature and Date

M4W41-SLF-08-1237

ATTACHMENT 4

ANALYTICAL RESULTS

Consisting of 31 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical: S. Fitzgerald 11/11/08

Client Services: P.O. Mix 11/11/2008

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

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Contract#: FH-EIS-2003-MEM-001
Report#: WSCF20082084
Report Date: 10-nov-2008
Report WGPP/ver. 5.2
Groundwater Remediation Program

w13qlog v4.2 10-nov-2008 13:38:45

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20082084

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
38227	2	38631	43062	BLANK		Anions by Ion Chromatography
38227	10	38631	43062	BLANK		Anions by Ion Chromatography
38227	3	38631	43062	LCS		Anions by Ion Chromatography
38227	6	38631	43062	DUP	W08GR03902	Anions by Ion Chromatography
38227	7	38631	43062	MS	W08GR03902	Anions by Ion Chromatography
38227	8	38631	43062	MSD	W08GR03902	Anions by Ion Chromatography
38227	8	38631	43062	SPK-RPD	W08GR03902	Anions by Ion Chromatography
38227	9	38631	43062	SAMPLE	W08GR03910	Anions by Ion Chromatography
38252	1	38674	43150	BLANK		ICP Metals Analysis, Grd H20 P
38252	2	38674	43150	LCS		ICP Metals Analysis, Grd H20 P
38252	4	38674	43150	MS	W08GR03859	ICP Metals Analysis, Grd H20 P
38252	5	38674	43150	MSD	W08GR03859	ICP Metals Analysis, Grd H20 P
38252	5	38674	43150	SPK-RPD	W08GR03859	ICP Metals Analysis, Grd H20 P
38252	10	38674	43150	SAMPLE	W08GR03910	ICP Metals Analysis, Grd H20 P
38353	1	38774	43240	BLANK		ICP-200.8 MS All possible meta
38353	2	38774	43240	BLANK		ICP-200.8 MS All possible meta
38353	3	38774	43240	LCS		ICP-200.8 MS All possible meta
38353	4	38774	43240	LCS		ICP-200.8 MS All possible meta
38353	38	38774	43240	SAMPLE	W08GR03910	ICP-200.8 MS All possible meta
38353	39	38774	43240	SAMPLE	W08GR03911	ICP-200.8 MS All possible meta
38353	6	38774	43240	MS	W08P004427	ICP-200.8 MS All possible meta
38353	7	38774	43240	MSD	W08P004427	ICP-200.8 MS All possible meta
38353	7	38774	43240	SPK-RPD	W08P004427	ICP-200.8 MS All possible meta
38353	9	38774	43240	MS	W08P004429	ICP-200.8 MS All possible meta
38353	10	38774	43240	MSD	W08P004429	ICP-200.8 MS All possible meta
38353	10	38774	43240	SPK-RPD	W08P004429	ICP-200.8 MS All possible meta
38336	1	38728	43253	BLANK		ICP Metals Analysis, Grd H20 P
38336	2	38728	43253	LCS		ICP Metals Analysis, Grd H20 P
38336	4	38728	43253	MS	W08GR03895	ICP Metals Analysis, Grd H20 P
38336	5	38728	43253	MSD	W08GR03895	ICP Metals Analysis, Grd H20 P
38336	5	38728	43253	SPK-RPD	W08GR03895	ICP Metals Analysis, Grd H20 P
38336	9	38728	43253	SAMPLE	W08GR03911	ICP Metals Analysis, Grd H20 P

w13qlog v4.2 10-nov-2008 13:38:45

Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20082084

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			43232	BLANK		VOA Ground Water Protection
			43232	LCS		VOA Ground Water Protection
			43232	MS	W08GR03898	VOA Ground Water Protection
			43232	MSD	W08GR03898	VOA Ground Water Protection
			43232	SPK-RPD	W08GR03898	VOA Ground Water Protection
			43232	SAMPLE	W08GR03910	VOA Ground Water Protection
			43232	SURR	W08GR03910	VOA Ground Water Protection
			43232	SAMPLE	W08GR03912	VOA Ground Water Protection
			43232	SURR	W08GR03912	VOA Ground Water Protection

w13qlog v4.2 10-nov-2008 13:38:45

Department: Radiochemistry

W13q Worklist/Batch/QC Report for Group# WSCF20082084

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
38268	1	38689	43186	BLANK		TC99 by Liquid Scin.
38268	2	38689	43186	LCS		TC99 by Liquid Scin.
38268	4	38689	43186	DUP	W08GR03784	TC99 by Liquid Scin.
38268	3	38689	43186	MS	W08GR03784	TC99 by Liquid Scin.
38268	18	38689	43186	SAMPLE	W08GR03909	TC99 by Liquid Scin.
38268	19	38689	43186	SAMPLE	W08GR03910	TC99 by Liquid Scin.
38346	1	38767	43265	BLANK		Strontium 89/90
38346	2	38767	43265	LCS		Strontium 89/90
38346	3	38767	43265	DUP	W08GR03856	Strontium 89/90
38346	18	38767	43265	SAMPLE	W08GR03910	Strontium 89/90
38346	19	38767	43265	SURR	W08GR03910	Strontium 89/90
38418	1	38840	43332	BLANK		Gross Alpha on Alpha Plateau
38418	2	38840	43332	LCS		Gross Alpha on Alpha Plateau
38418	3	38840	43332	DUP	W08GR03901	Gross Alpha on Alpha Plateau
38418	6	38840	43332	SAMPLE	W08GR03909	Gross Alpha on Alpha Plateau
38418	7	38840	43332	SAMPLE	W08GR03910	Gross Alpha on Alpha Plateau
38410	1	38832	43333	BLANK		Gross Alpha/Gross Beta (AB32)
38410	2	38832	43333	LCS		Gross Alpha/Gross Beta (AB32)
38410	3	38832	43333	DUP	W08GR03901	Gross Alpha/Gross Beta (AB32)
38410	6	38832	43333	SAMPLE	W08GR03909	Gross Alpha/Gross Beta (AB32)
38410	7	38832	43333	SAMPLE	W08GR03910	Gross Alpha/Gross Beta (AB32)
38264	1	38685	43354	BLANK		Tritium by Liq Sct column prep
38264	2	38685	43354	LCS		Tritium by Liq Sct column prep
38264	4	38685	43354	DUP	W08GR03864	Tritium by Liq Sct column prep
38264	3	38685	43354	MS	W08GR03864	Tritium by Liq Sct column prep
38264	9	38685	43354	SAMPLE	W08GR03909	Tritium by Liq Sct column prep
38264	10	38685	43354	SAMPLE	W08GR03910	Tritium by Liq Sct column prep
38492	1	38913	43410	BLANK		Neptunium by AEA
38492	2	38913	43410	LCS		Neptunium by AEA
38492	3	38913	43410	DUP	W08GR03901	Neptunium by AEA
38492	5	38913	43410	MS	W08GR03901	Neptunium by AEA
38492	6	38913	43410	MSD	W08GR03901	Neptunium by AEA
38492	6	38913	43410	SPK-RPD	W08GR03901	Neptunium by AEA
38492	8	38913	43410	MS	W08GR03902	Neptunium by AEA
38492	10	38913	43410	MS	W08GR03910	Neptunium by AEA
38492	9	38913	43410	SAMPLE	W08GR03910	Neptunium by AEA
38492	12	38913	43410	MS	W08GR03915	Neptunium by AEA
38505	1	38926	43436	BLANK		Uranium Isotopics by AEA
38505	2	38926	43436	LCS		Uranium Isotopics by AEA
38505	3	38926	43436	DUP	W08GR03895	Uranium Isotopics by AEA
38505	14	38926	43436	SAMPLE	W08GR03910	Uranium Isotopics by AEA
38505	15	38926	43436	SURR	W08GR03910	Uranium Isotopics by AEA

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-505-411 LA-505-411: ELEMENTAL ANALYSIS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPE

HEIS 6010_METALS_ICP	Inductively Coupled Plasma-Atomic Emmision Spectrometry

LA-505-412 LA-505-412: DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY

EPA-600/R-94-111 200.8	DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY COUPLED PLAS
HEIS 200.8_METALS_ICPMS	Inductively Coupled Plasma - Mass Spectrometry
HEIS RADISOTOPES_ICPMS	Radioisotopes by ICP/MS

LA-533-410 LA-533-410: ANION ANALYSIS BY ION CHROMATOGRAPHY

EPA-600/R-94-111 300.0	DETERMINATION OF INORGANIC ANIONS BY ION CHROMATOGRAPHY
HEIS 300.0_ANIONS_IC	Determination of Inorganic Anions by Ion Chromatography

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.

WSCF
METHOD REFERENCES REPORT

Department: Organic

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-523-455	LA-523-455: VOLATILE SAMPLE ANALYSIS BY SW-846	
	EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
	EPA SW-846 8260B	VOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
	HEIS 8260_VOA_GCMS	Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

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.

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_GE**	Strontium 89/90

LA-508-421 LA-508-421: OPERATION OF THE TRI-CARB MODEL 2500TR LIQUID SCINTILLATION ANALYZER

HEIS	**ALPHA_LSC**	A/B Liquid Scintilillation
HEIS	**BETA_LSC**	A/B Liquid Scintilallation
HEIS	**TC99_3MDSK_LSC**	TC99 by Liquid Scintillation
HEIS	**TRITIUM_EIE_LSC**	Tritium Liquid Scintillation

LA-508-471 LA-508-471: ALPHA ENERGY ANALYZER DATA ACQUISITION AND SYSTEM CHECKOUT USING ALP

HEIS	**PUISO_IE_PRECIP_AEA**	Plutonium by Alpha Energy Analysis
HEIS	**RAISO_AEA**	Radium-226

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.

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-086
Sample # W08GR03910
Client ID: B1TRD6 GPP TRENT WSCF
Matrix: WATER

Group #: WSCF20082084
Department: Inorganic
Sampled: 09/25/08
Received: 09/25/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410		0.104	mg/L			1.00	0.023		09/25/08
Nitrogen in Nitrite	NO2-N	LA-533-410	U	< 0.0128	mg/L			1.00	0.013		09/25/08
Nitrogen in Nitrate	NO3-N	LA-533-410		1.39	mg/L			1.00	0.012		09/25/08
ICP Metals Analysis, Grd H20 P Prep											**09/29/08**
ICP Metals Analysis, Grd H20 P											
Manganese	7439-96-5	LA-505-411		189	ug/L			1.00	4.0		09/30/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		09/30/08
Antimony	7440-36-0	LA-505-411	U	< 56.0	ug/L			1.00	56		09/30/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		09/30/08
Chromium	7440-47-3	LA-505-411	U	< 13.0	ug/L			1.00	13		09/30/08
Vanadium	7440-62-2	LA-505-411	U	< 12.0	ug/L			1.00	12		09/30/08
Zinc	7440-66-6	LA-505-411		71.0	ug/L			1.00	9.0		09/30/08
Lead	7439-92-1	LA-505-411	U	< 45.0	ug/L			1.00	45		09/30/08
Thallium	7440-28-0	LA-505-411	U	< 36.0	ug/L			1.00	36		09/30/08
Arsenic	7440-38-2	LA-505-411	U	< 78.0	ug/L			1.00	78		09/30/08
ICP-200.8 MS All possible meta Prep											**10/07/08**
ICP-200.8 MS All possible meta											
Uranium	7440-61-1	LA-505-412		1.02	ug/L			1.00	0.0500		10/08/08

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

U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)
U - Analyzed for but not detected above limiting criteria.

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-086
Sample # W08GR03911
Client ID: B1TRK0 GPP TRENT WSCF
Matrix: WATER

Group #: WSCF20082084
Department: Inorganic
Sampled: 09/25/08
Received: 09/25/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**10/07/08**
ICP Metals Analysis, Grd H20 P											
Manganese	7439-96-5	LA-505-411		189	ug/L			1.00	4.0		10/08/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/08/08
Antimony	7440-36-0	LA-505-411	U	< 56.0	ug/L			1.00	56		10/08/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/08/08
Chromium	7440-47-3	LA-505-411	U	< 13.0	ug/L			1.00	13		10/08/08
Vanadium	7440-62-2	LA-505-411	U	< 12.0	ug/L			1.00	12		10/08/08
Zinc	7440-66-6	LA-505-411	U	< 9.00	ug/L			1.00	9.0		10/08/08
Lead	7439-92-1	LA-505-411	U	< 45.0	ug/L			1.00	45		10/08/08
Thallium	7440-28-0	LA-505-411	U	< 36.0	ug/L			1.00	36		10/08/08
Arsenic	7440-38-2	LA-505-411	U	< 78.0	ug/L			1.00	78		10/08/08
ICP-200.8 MS All possible meta Prep											**10/07/08**
ICP-200.8 MS All possible meta											
Uranium	7440-61-1	LA-505-412		1.09	ug/L			1.00	0.0500		10/08/08

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

U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)
U - Analyzed for but not detected above limiting criteria.

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20082084
Matrix: WATER
Test: Anions by Ion Chromatography

Sample Date: 09/25/08
Receive Date:09/25/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03902											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Fluoride	16984-48-8	7.31e-2		RPD			0.137	20.000		09/25/08
DUP	Nitrogen in Nitrite	NO2-N	<1.28e-2		RPD			n/a	20.000	U	09/25/08
DUP	Nitrogen in Nitrate	NO3-N	1.5143		RPD			0.316	20.000		09/25/08
MS	Fluoride	16984-48-8	0.479	97.160	% Recov	80.000	120.000				09/25/08
MS	Nitrogen in Nitrite	NO2-N	0.4854	98.659	% Recov	80.000	120.000				09/25/08
MS	Nitrogen in Nitrate	NO3-N	0.4575	102.578	% Recov	80.000	120.000				09/25/08
MSD	Fluoride	16984-48-8	0.4819	97.748	% Recov	80.000	120.000				09/25/08
MSD	Nitrogen in Nitrite	NO2-N	0.4806	97.683	% Recov	80.000	120.000				09/25/08
MSD	Nitrogen in Nitrate	NO3-N	0.4584	102.780	% Recov	80.000	120.000				09/25/08
SPK-RPD	Fluoride	16984-48-8	97.748		RPD			0.603	20.000		09/25/08
SPK-RPD	Nitrogen in Nitrite	NO2-N	97.683		RPD			0.994	20.000		09/25/08
SPK-RPD	Nitrogen in Nitrate	NO3-N	102.780		RPD			0.197	20.000		09/25/08
BATCH QC											
BLANK	Fluoride	16984-48-8	<2.32e-2	n/a	mg/L	0.000	0.030			U	09/25/08
BLANK	Fluoride	16984-48-8	<2.32e-2	n/a	mg/L	0.000	0.030			U	09/25/08
BLANK	Nitrogen in Nitrite	NO2-N	<1.28e-2	n/a	mg/L	0.000	0.020			U	09/25/08
BLANK	Nitrogen in Nitrite	NO2-N	<1.28e-2	n/a	mg/L	0.000	0.020			U	09/25/08
BLANK	Nitrogen in Nitrate	NO3-N	<1.21e-2	n/a	mg/L	0.000	0.040			U	09/25/08
BLANK	Nitrogen in Nitrate	NO3-N	<1.21e-2	n/a	mg/L	0.000	0.040			U	09/25/08
LCS	Fluoride	16984-48-8	104.4258	104.845	% Recov	80.000	120.000				09/25/08
LCS	Nitrogen in Nitrite	NO2-N	101.1165	101.727	% Recov	80.000	120.000				09/25/08
LCS	Nitrogen in Nitrate	NO3-N	93.3753	103.635	% Recov	80.000	120.000				09/25/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20082084
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 09/23/08
Receive Date:09/23/08

Lab ID: W08GR03859
BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	Arsenic	7440-38-2	990	99.000	% Recov	75.000	125.000				09/30/08
MS	Cadmium	7440-43-9	1024	102.400	% Recov	75.000	125.000				09/30/08
MS	Chromium	7440-47-3	1003	100.300	% Recov	75.000	125.000				09/30/08
MS	Manganese	7439-96-5	1019	101.900	% Recov	75.000	125.000				09/30/08
MS	Nickel	7440-02-0	998.2	99.820	% Recov	75.000	125.000				09/30/08
MS	Lead	7439-92-1	1060	106.000	% Recov	75.000	125.000				09/30/08
MS	Antimony	7440-36-0	1028	102.800	% Recov	75.000	125.000				09/30/08
MS	Thallium	7440-28-0	1052	105.200	% Recov	75.000	125.000				09/30/08
MS	Vanadium	7440-62-2	962	96.200	% Recov	75.000	125.000				09/30/08
MS	Zinc	7440-66-6	1043.5	104.350	% Recov	75.000	125.000				09/30/08
MSD	Arsenic	7440-38-2	993	99.300	% Recov	75.000	125.000				09/30/08
MSD	Cadmium	7440-43-9	1021	102.100	% Recov	75.000	125.000				09/30/08
MSD	Chromium	7440-47-3	998.6	99.860	% Recov	75.000	125.000				09/30/08
MSD	Manganese	7439-96-5	1019	101.900	% Recov	75.000	125.000				09/30/08
MSD	Nickel	7440-02-0	1002	100.200	% Recov	75.000	125.000				09/30/08
MSD	Lead	7439-92-1	1070	107.000	% Recov	75.000	125.000				09/30/08
MSD	Antimony	7440-36-0	1023	102.300	% Recov	75.000	125.000				09/30/08
MSD	Thallium	7440-28-0	1110	111.000	% Recov	75.000	125.000				09/30/08
MSD	Vanadium	7440-62-2	958	95.800	% Recov	75.000	125.000				09/30/08
MSD	Zinc	7440-66-6	1023.5	102.350	% Recov	75.000	125.000				09/30/08
SPK-RPD	Arsenic	7440-38-2	99.300		RPD			0.303	20.000		09/30/08
SPK-RPD	Cadmium	7440-43-9	102.100		RPD			0.293	20.000		09/30/08
SPK-RPD	Chromium	7440-47-3	99.860		RPD			0.440	20.000		09/30/08
SPK-RPD	Manganese	7439-96-5	101.900		RPD			0.000	20.000		09/30/08
SPK-RPD	Nickel	7440-02-0	100.200		RPD			0.380	20.000		09/30/08
SPK-RPD	Lead	7439-92-1	107.000		RPD			0.939	20.000		09/30/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20082084
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 09/23/08
Receive Date:09/23/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	Antimony	7440-36-0	102.300		RPD			0.488	20.000		09/30/08
SPK-RPD	Thallium	7440-28-0	111.000		RPD			5.365	20.000		09/30/08
SPK-RPD	Vanadium	7440-62-2	95.800		RPD			0.417	20.000		09/30/08
SPK-RPD	Zinc	7440-66-6	102.350		RPD			1.935	20.000		09/30/08
BATCH QC											
BLANK	Arsenic	7440-38-2	<78	n/a	ug/L					U	09/30/08
BLANK	Cadmium	7440-43-9	<4	n/a	ug/L					U	09/30/08
BLANK	Chromium	7440-47-3	<13	n/a	ug/L					U	09/30/08
BLANK	Manganese	7439-96-5	<4	n/a	ug/L					U	09/30/08
BLANK	Nickel	7440-02-0	<4	n/a	ug/L					U	09/30/08
BLANK	Lead	7439-92-1	<45	n/a	ug/L					U	09/30/08
BLANK	Antimony	7440-36-0	<56	n/a	ug/L					U	09/30/08
BLANK	Thallium	7440-28-0	<36	n/a	ug/L					U	09/30/08
BLANK	Vanadium	7440-62-2	<12	n/a	ug/L					U	09/30/08
BLANK	Zinc	7440-66-6	<9	n/a	ug/L					U	09/30/08
LCS	Arsenic	7440-38-2	975	97.500	% Recov	80.000	120.000				09/30/08
LCS	Cadmium	7440-43-9	1035	103.500	% Recov	80.000	120.000				09/30/08
LCS	Chromium	7440-47-3	988.8	98.880	% Recov	80.000	120.000				09/30/08
LCS	Manganese	7439-96-5	994	99.400	% Recov	80.000	120.000				09/30/08
LCS	Nickel	7440-02-0	1015	101.500	% Recov	80.000	120.000				09/30/08
LCS	Lead	7439-92-1	1090	109.000	% Recov	80.000	120.000				09/30/08
LCS	Antimony	7440-36-0	1062	106.200	% Recov	80.000	120.000				09/30/08
LCS	Thallium	7440-28-0	1099	109.900	% Recov	80.000	120.000				09/30/08
LCS	Vanadium	7440-62-2	969	96.900	% Recov	80.000	120.000				09/30/08
LCS	Zinc	7440-66-6	1042	104.200	% Recov	80.000	120.000				09/30/08
Lab ID: W08GR03895											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Arsenic	7440-38-2	1020	102.000	% Recov	75.000	125.000				10/08/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20082084
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 09/24/08
Receive Date:09/24/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	Cadmium	7440-43-9	1006	100.600	% Recov	75.000	125.000				10/08/08
MS	Chromium	7440-47-3	984.4	98.440	% Recov	75.000	125.000				10/08/08
MS	Manganese	7439-96-5	1005	100.500	% Recov	75.000	125.000				10/08/08
MS	Nickel	7440-02-0	1001	100.100	% Recov	75.000	125.000				10/08/08
MS	Lead	7439-92-1	1040	104.000	% Recov	75.000	125.000				10/08/08
MS	Antimony	7440-36-0	991.4	99.140	% Recov	75.000	125.000				10/08/08
MS	Thallium	7440-28-0	1042	104.200	% Recov	75.000	125.000				10/08/08
MS	Vanadium	7440-62-2	978	97.800	% Recov	75.000	125.000				10/08/08
MS	Zinc	7440-66-6	1017	101.700	% Recov	75.000	125.000				10/08/08
MSD	Arsenic	7440-38-2	996	99.600	% Recov	75.000	125.000				10/08/08
MSD	Cadmium	7440-43-9	1000	100.000	% Recov	75.000	125.000				10/08/08
MSD	Chromium	7440-47-3	979	97.900	% Recov	75.000	125.000				10/08/08
MSD	Manganese	7439-96-5	1005	100.500	% Recov	75.000	125.000				10/08/08
MSD	Nickel	7440-02-0	985.9	98.590	% Recov	75.000	125.000				10/08/08
MSD	Lead	7439-92-1	1040	104.000	% Recov	75.000	125.000				10/08/08
MSD	Antimony	7440-36-0	961.6	96.160	% Recov	75.000	125.000				10/08/08
MSD	Thallium	7440-28-0	1021	102.100	% Recov	75.000	125.000				10/08/08
MSD	Vanadium	7440-62-2	979	97.900	% Recov	75.000	125.000				10/08/08
MSD	Zinc	7440-66-6	1003	100.300	% Recov	75.000	125.000				10/08/08
SPK-RPD	Arsenic	7440-38-2	99.600		RPD			2.381	20.000		10/08/08
SPK-RPD	Cadmium	7440-43-9	100.000		RPD			0.598	20.000		10/08/08
SPK-RPD	Chromium	7440-47-3	97.900		RPD			0.550	20.000		10/08/08
SPK-RPD	Manganese	7439-96-5	100.500		RPD			0.000	20.000		10/08/08
SPK-RPD	Nickel	7440-02-0	98.590		RPD			1.520	20.000		10/08/08
SPK-RPD	Lead	7439-92-1	104.000		RPD			0.000	20.000		10/08/08
SPK-RPD	Antimony	7440-36-0	96.160		RPD			3.052	20.000		10/08/08
SPK-RPD	Thallium	7440-28-0	102.100		RPD			2.036	20.000		10/08/08
SPK-RPD	Vanadium	7440-62-2	97.900		RPD			0.102	20.000		10/08/08
SPK-RPD	Zinc	7440-66-6	100.300		RPD			1.386	20.000		10/08/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20082084
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BATCH QC											
BLANK	Arsenic	7440-38-2	<78	n/a	ug/L					U	10/08/08
BLANK	Cadmium	7440-43-9	<4	n/a	ug/L					U	10/08/08
BLANK	Chromium	7440-47-3	<13	n/a	ug/L					U	10/08/08
BLANK	Manganese	7439-96-5	<4	n/a	ug/L					U	10/08/08
BLANK	Nickel	7440-02-0	<4	n/a	ug/L					U	10/08/08
BLANK	Lead	7439-92-1	<45	n/a	ug/L					U	10/08/08
BLANK	Antimony	7440-36-0	<56	n/a	ug/L					U	10/08/08
BLANK	Thallium	7440-28-0	<36	n/a	ug/L					U	10/08/08
BLANK	Vanadium	7440-62-2	<12	n/a	ug/L					U	10/08/08
BLANK	Zinc	7440-66-6	<9	n/a	ug/L					U	10/08/08
LCS	Arsenic	7440-38-2	1020	102.000	% Recov	80.000	120.000				10/08/08
LCS	Cadmium	7440-43-9	1020	102.000	% Recov	80.000	120.000				10/08/08
LCS	Chromium	7440-47-3	991.7	99.170	% Recov	80.000	120.000				10/08/08
LCS	Manganese	7439-96-5	995	99.500	% Recov	80.000	120.000				10/08/08
LCS	Nickel	7440-02-0	1015	101.500	% Recov	80.000	120.000				10/08/08
LCS	Lead	7439-92-1	1090	109.000	% Recov	80.000	120.000				10/08/08
LCS	Antimony	7440-36-0	1013	101.300	% Recov	80.000	120.000				10/08/08
LCS	Thallium	7440-28-0	1079	107.900	% Recov	80.000	120.000				10/08/08
LCS	Vanadium	7440-62-2	979	97.900	% Recov	80.000	120.000				10/08/08
LCS	Zinc	7440-66-6	1028	102.800	% Recov	80.000	120.000				10/08/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20082084
Matrix: WATER
Test: ICP-200.8 MS All possible meta

Sample Date: 09/16/08
Receive Date:09/16/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P004427											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Uranium	7440-61-1	39.778	99.445	% Recov	70.000	130.000				10/08/08
MSD	Uranium	7440-61-1	40.838	102.095	% Recov	70.000	130.000				10/08/08
SPK-RPD	Uranium	7440-61-1	102.095		RPD			2.630	20.000		10/08/08
Lab ID: W08P004429											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Uranium	7440-61-1	40.771	101.927	% Recov	70.000	130.000				10/08/08
MSD	Uranium	7440-61-1	39.711	99.278	% Recov	70.000	130.000				10/08/08
SPK-RPD	Uranium	7440-61-1	99.278		RPD			2.633	20.000		10/08/08
BATCH QC											
BLANK	Uranium	7440-61-1	<5e-2	n/a	ug/L					U	10/08/08
BLANK	Uranium	7440-61-1	<5e-2	n/a	ug/L					U	10/08/08
LCS	Uranium	7440-61-1	37.05	92.625	% Recov	85.000	115.000				10/08/08
LCS	Uranium	7440-61-1	37.63	94.075	% Recov	85.000	115.000				10/08/08

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-086
Sample # W08GR03910
Client ID: B1TRD6 GPP WSCF TRENT **Matrix:** WATER

Group #: WSCF20082084
Department: Organic
Sampled: 09/25/08
Received: 09/25/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
VOA Ground Water Protection											
1,1-Dichloroethene	75-35-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Dibromochloromethane	124-48-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Bromodichloromethane	75-27-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Hexane	110-54-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08

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

U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)
U - Analyzed for but not detected above limiting criteria.

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-086
Sample # W08GR03912
Client ID: B1TRH8 GPP TRENT WSCF
Matrix: WATER

Group #: WSCF20082084
Department: Organic
Sampled: 09/25/08
Received: 09/25/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
VOA Ground Water Protection											
1,1-Dichloroethene	75-35-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Dibromochloromethane	124-48-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Bromodichloromethane	75-27-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08
Hexane	110-54-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		10/03/08

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

U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)
U - Analyzed for but not detected above limiting criteria.

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20082084
Matrix: WATER
Test: VOA Ground Water Protection

Sample Date: 09/25/08
Receive Date:09/25/08

Lab ID: W08GR03898
BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	1,1-Dichloroethene	75-35-4	20.510	82.000	% Recov	63.000	117.000				10/03/08
MS	Benzene	71-43-2	22.960	91.800	% Recov	75.000	129.000				10/03/08
MS	4-Bromofluorobenzene(Surr)	460-00-4	48.110	96.200	% Recov	75.000	125.000				10/03/08
MS	Chlorobenzene	108-90-7	23.610	94.400	% Recov	79.000	119.000				10/03/08
MS	1,2-Dichloroethane-d4(Surr)	17060-07-0	52.420	105.000	% Recov	75.000	125.000				10/03/08
MS	Toluene-d8(Surr)	2037-26-5	47.660	95.300	% Recov	75.000	125.000				10/03/08
MS	Toluene	108-88-3	21.538	86.200	% Recov	76.000	120.000				10/03/08
MS	Trichloroethene	79-01-6	20.259	81.000	% Recov	73.000	123.000				10/03/08
MSD	1,1-Dichloroethene	75-35-4	20.400	81.600	% Recov	63.000	117.000				10/03/08
MSD	Benzene	71-43-2	23.460	93.800	% Recov	75.000	129.000				10/03/08
MSD	4-Bromofluorobenzene(Surr)	460-00-4	48.500	97.000	% Recov	75.000	125.000				10/03/08
MSD	Chlorobenzene	108-90-7	24.270	97.100	% Recov	79.000	119.000				10/03/08
MSD	1,2-Dichloroethane-d4(Surr)	17060-07-0	52.700	105.000	% Recov	75.000	125.000				10/03/08
MSD	Toluene-d8(Surr)	2037-26-5	47.860	95.700	% Recov	75.000	125.000				10/03/08
MSD	Toluene	108-88-3	21.928	87.700	% Recov	76.000	120.000				10/03/08
MSD	Trichloroethene	79-01-6	20.499	82.000	% Recov	73.000	123.000				10/03/08
SPK-RPD	1,1-Dichloroethene	75-35-4	81.600		RPD			0.489	20.000		10/03/08
SPK-RPD	Benzene	71-43-2	93.800		RPD			2.155	20.000		10/03/08
SPK-RPD	4-Bromofluorobenzene(Surr)	460-00-4	97.000		RPD			0.828	20.000		10/03/08
SPK-RPD	Chlorobenzene	108-90-7	97.100		RPD			2.820	20.000		10/03/08
SPK-RPD	1,2-Dichloroethane-d4(Surr)	17060-07-0	105.000		RPD			0.000	20.000		10/03/08
SPK-RPD	Toluene-d8(Surr)	2037-26-5	95.700		RPD			0.419	20.000		10/03/08
SPK-RPD	Toluene	108-88-3	87.700		RPD			1.725	20.000		10/03/08
SPK-RPD	Trichloroethene	79-01-6	82.000		RPD			1.227	20.000		10/03/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20082084
Matrix: WATER
Test: VOA Ground Water Protection

Sample Date: 09/25/08
Receive Date:09/25/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03910											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	48.180	96.400	% Recov	75.000	125.000				10/03/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	53.160	106.000	% Recov	75.000	125.000				10/03/08
SURR	Toluene-d8(Surr)	2037-26-5	48.370	96.700	% Recov	75.000	125.000				10/03/08
Lab ID: W08GR03912											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	48.350	96.700	% Recov	75.000	125.000				10/03/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	53.180	106.000	% Recov	75.000	125.000				10/03/08
SURR	Toluene-d8(Surr)	2037-26-5	48.400	96.800	% Recov	75.000	125.000				10/03/08
BATCH QC											
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	n/a	ug/L	0.000	5.000			U	10/02/08
BLANK	1,1-Dichloroethene	75-35-4	< 1.0	n/a	ug/L					U	10/02/08
BLANK	1,2-Dichloroethane	107-06-2	< 1.0	n/a	ug/L					U	10/02/08
BLANK	Bromodichloromethane	75-27-4	< 1.0	n/a	ug/L					U	10/02/08
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/L					U	10/02/08
BLANK	4-Bromofluorobenzene(Surr)	460-00-4	48.350	96.700	% Recov	75.000	125.000				10/02/08
BLANK	Carbon tetrachloride	56-23-5	< 1.0	n/a	ug/L					U	10/02/08
BLANK	Dibromochloromethane	124-48-1	< 1.0	n/a	ug/L					U	10/02/08
BLANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/L					U	10/02/08
BLANK	1,2-Dichloroethane-d4(Surr)	17060-07-0	52.630	105.000	% Recov	75.000	125.000				10/02/08
BLANK	Hexane	110-54-3	< 1.0	n/a	ug/L					U	10/02/08
BLANK	Methylenechloride	75-09-2	< 1.0	n/a	ug/L					U	10/02/08
BLANK	Tetrachloroethene	127-18-4	< 1.0	n/a	ug/L					U	10/02/08
BLANK	Toluene-d8(Surr)	2037-26-5	47.810	95.600	% Recov	75.000	125.000				10/02/08
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/L					U	10/02/08
BLANK	Trichloroethene	79-01-6	< 1.0	n/a	ug/L					U	10/02/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20082084
Matrix: WATER
Test: VOA Ground Water Protection

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Vinyl chloride	75-01-4	< 1.0	n/a	ug/L					U	10/02/08
LCS	1,1-Dichloroethene	75-35-4	21.000	84.000	% Recov	75.000	125.000				10/02/08
LCS	Benzene	71-43-2	22.880	91.500	% Recov	75.000	125.000				10/02/08
LCS	4-Bromofluorobenzene(Surr)	460-00-4	48.400	96.800	% Recov	75.000	125.000				10/02/08
LCS	Chlorobenzene	108-90-7	23.640	94.600	% Recov	75.000	125.000				10/02/08
LCS	1,2-Dichloroethane-d4(Surr)	17060-07-0	52.500	105.000	% Recov	75.000	125.000				10/02/08
LCS	Toluene-d8(Surr)	2037-26-5	47.570	95.100	% Recov	75.000	125.000				10/02/08
LCS	Toluene	108-88-3	22.830	91.300	% Recov	75.000	125.000				10/02/08
LCS	Trichloroethene	79-01-6	20.930	83.700	% Recov	75.000	125.000				10/02/08

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-086
Sample # W08GR03909
Client ID: B1TRD3 GPP TRENT WSCF **Matrix:** WATER

Group #: WSCF20082084
Department: Radiochemistry
Sampled: 09/25/08
Received: 09/25/08

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	1.40	pCi/L	+-1.02	pCi/L	1.00	1.5		10/16/08
Gross Alpha/Gross Beta (AB32)											
Gross beta	12587-47-2	LA-508-415		30.0	pCi/L	+-3.60	pCi/L	1.00	1.7		10/14/08
TC99 by Liquid Scin.											
Tc-99 by Liquid Scin.	14133-76-7	LA-508-421		45.0	pCi/L	+-9.90	pCi/L	1.00	5.7		10/04/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		2.40e+04	pCi/L	+-4.80e+03	pCi/L	1.00	2.0e+02		10/21/08

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

U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)
U - Analyzed for but not detected above limiting criteria.

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-086
Sample # W08GR03910
Client ID: B1TRD6 GPP TRENT WSCF **Matrix:** WATER

Group #: WSCF20082084
Department: Radiochemistry
Sampled: 09/25/08
Received: 09/25/08

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	0.410	pCi/L	+-0.902	pCi/L	1.00	1.5		10/16/08
Gross Alpha/Gross Beta (AB32)											
Gross beta	12587-47-2	LA-508-415		2.80	pCi/L	+-1.20	pCi/L	1.00	1.8		10/14/08
Neptunium by AEA											
Neptunium-237	13994-20-2	LA-508-471		0.120	pCi/L	+-0.144	pCi/L	1.00	0.11		10/29/08
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415	U	-2.60	pCi/L	+-2.60	pCi/L	1.00	0.93		10/07/08
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		93.8	Percent			1.00	0.0		10/07/08
TC99 by Liquid Scin.											
Tc-99 by Liquid Scin.	14133-76-7	LA-508-421	U	0.0180	pCi/L	+-0.180	pCi/L	1.00	5.7		10/04/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421	U	83.0	pCi/L	+-134	pCi/L	1.00	2.0e+02		10/21/08
Uranium Isotopics by AEA											
Uranium-233/234	U-233/234	LA-508-471		0.560	pCi/L	+-0.174	pCi/L	1.00	0.012		11/04/08
Uranium-235	15117-96-1	LA-508-471		0.0330	pCi/L	+-0.0264	pCi/L	1.00	0.013		11/04/08
Uranium-238	U-238	LA-508-471		0.410	pCi/L	+-0.135	pCi/L	1.00	0.012		11/04/08
U-232 tracer by AEA	U232	LA-508-471		10.0	pCi/L			1.00	0.061		11/04/08

MDL=Minimum Detection Limit U - Analyzed for but not detected above limiting criteria(inorg) U - Analyzed for but not detected above limiting criteria.
RQ=Result Qualifier U - Analyzed for but not detected above limiting criteria.(org)
TP Err=Total Propagated Error
DF=Dilution Factor
* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20082084
Matrix: WATER
Test: Gross Alpha on Alpha Plateau

Sample Date: 09/25/08
Receive Date:09/25/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03901											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Gross alpha on alpha plateau	12587-46-1	U3.0E-01		RPD			n/a	20.000		10/16/08
BATCH QC											
BLANK	Gross alpha on alpha plateau	12587-46-1-ap	4.5E-01	0.450	pCi/L	-100.000	100.000				10/16/08
LCS	Gross alpha on alpha plateau	12587-46-1-ap	36.6	94.476	% Recov	80.000	120.000				10/16/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20082084
Matrix: WATER
Test: Gross Alpha/Gross Beta (AB32)

Sample Date: 09/25/08
Receive Date:09/25/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03901											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Gross beta	12587-47-2	4.6		RPD			9.091	20.000		10/14/08
BATCH QC											
BLANK	Gross beta	12587-47-2	U6.6E-01	n/a	pCi/L	-10.000	10.000				10/14/08
LCS	Gross beta	12587-47-2	123	109.626	% Recov	80.000	120.000				10/14/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20082084
Matrix: WATER
Test: Neptunium by AEA

Sample Date: 09/25/08
Receive Date:09/25/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03901											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Neptunium-237	13994-20-2	U3.6e-2		RPD			n/a	20.000		10/29/08
MS	Neptunium-237	13994-20-2	90.8	90.800	% Recov	75.000	125.000				10/29/08
MSD	Neptunium-237	13994-20-2	94.1	94.100	% Recov	75.000	125.000				10/29/08
SPK-RPD	Neptunium-237	13994-20-2	94.100		% RPD			3.569	20.000		10/29/08
Lab ID: W08GR03902											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Neptunium-237	13994-20-2	97.5	97.500	% Recov	75.000	125.000				10/29/08
Lab ID: W08GR03910											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Neptunium-237	13994-20-2	80.2	80.200	% Recov	75.000	125.000				10/29/08
Lab ID: W08GR03915											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Neptunium-237	13994-20-2	79.5	79.500	% Recov	75.000	125.000				10/29/08
BATCH QC											
BLANK	Neptunium-237	13994-20-2	U6.8e-2	n/a	pCi/L	-10.000	1000.000				10/29/08
LCS	Neptunium-237	13994-20-2	9.5	74.568	% Recov	80.000	120.000				10/29/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20082084
Matrix: WATER
Test: Strontium 89/90

Sample Date: 09/23/08
Receive Date:09/23/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03856											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Sr-85 Tracer by Beta Counting	SR85	90.2	90.200	% Recov	30.000	105.000				10/07/08
DUP	Strontium-89/90	SR-RAD	U-2.7		RPD			n/a	20.000		10/07/08
Lab ID: W08GR03910											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Sr-85 Tracer by Beta Counting	SR85	93.8	93.800	% Recov	30.000	105.000				10/07/08
BATCH QC											
BLANK	Sr-85 Tracer by Beta Counting	SR85	96.3	96.300	% Recov	30.000	105.000				10/07/08
BLANK	Strontium-89/90	10098-97-2	U-2.4	n/a	pCi/L	-10.000	100.000				10/07/08
LCS	Sr-85 Tracer by Beta Counting	SR85	78.8	78.800	% Recov	30.000	105.000				10/07/08
LCS	Strontium-89/90	10098-97-2	155.0	111.647	% Recov	80.000	120.000				10/07/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Radiochemistry**

SDG Number: WSCF20082084
Matrix: WATER
Test: TC99 by Liquid Scin.

Sample Date: 09/19/08
Receive Date:09/19/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03784											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Tc-99 by Liquid Scin.	14133-76-7	U1.4		RPD			n/a	20.000		10/04/08
MS	Tc-99 by Liquid Scin.	14133-76-7	660.7	103.779	% Recov	75.000	125.000				10/04/08
BATCH QC											
BLANK	Tc-99 by Liquid Scin.	14133-76-7	U1.1	n/a	pCi/L	-10.000	10.000				10/04/08
LCS	Tc-99 by Liquid Scin.	14133-76-7	172.3	108.229	% Recov	80.000	120.000				10/04/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20082084
Matrix: WATER
Test: Tritium by Liq Sct column prep

Sample Date: 09/24/08
Receive Date:09/24/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03864											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Tritium	10028-17-8	2.2E+02		RPD			0.000	20.000		10/21/08
MS	Tritium	10028-17-8	21984	98.098	% Recov	75.000	125.000				10/21/08
BATCH QC											
BLANK	Tritium	10028-17-8	U9.7E+01	n/a	pCi/L	-10.000	1000.000				10/21/08
LCS	Tritium	10028-17-8	3060	90.645	% Recov	80.000	120.000				10/21/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20082084
Matrix: WATER
Test: Uranium Isotopics by AEA

Sample Date: 09/24/08
Receive Date:09/24/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03895											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	U-232 tracer by AEA	U232	10.29	100.210	% Recov	30.000	105.000				11/04/08
DUP	Uranium-233/234	U-233/234	0.21		RPD			13.333	20.000		11/04/08
DUP	Uranium-235	15117-96-1	U9e-3		RPD			n/a	20.000		11/04/08
DUP	Uranium-238	U-238	0.22		RPD			0.000	20.000		11/04/08
Lab ID: W08GR03910											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	U-232 tracer by AEA	U232	10.29	100.450	% Recov	30.000	105.000				11/04/08
BATCH QC											
BLANK	U-232 tracer by AEA	U232	10.29	84.000	% Recov	30.000	105.000				11/04/08
BLANK	Uranium-233/234	13966-29-5	3.9e-2	0.039	pCi/L	-10.000	1000.000				11/04/08
BLANK	Uranium-235	15117-96-1	U2.6e-2	n/a	pCi/L	-10.000	1000.000				11/04/08
BLANK	Uranium-238	24678-82-8	2.9e-2	0.029	pCi/L	-10.000	1000.000				11/04/08
LCS	U-232 tracer by AEA	U232	11.42	90.780	% Recov	30.000	105.000				11/04/08
LCS	Uranium-233/234	13966-29-5	90.78	90.780	% Recov	75.000	125.000				11/04/08
LCS	Uranium-238	24678-82-8	20	105.513	% Recov	80.000	120.000				11/04/08

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F08-086

Group #: WSCF20082084
Department: Radiochemistry

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-AES: [Sample W08GR3910] No zirconium present in the LCS standard. Sample results <5X MDL; "B" flag. ICP-AES: [Sample W08GR3911] No zirconium present in the LCS standard. Sample results <5X MDL; "B" flag. Np-237 LCS is slightly below the limit but has been reviewed and approved. 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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M4W41-SLF-08-1237

ATTACHMENT 5

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

File V13
11/10/08

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program
Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 122588/ES10
Group#: 20082084
Project#: F08-086
Proj Mgr: Steve Trent E6-35
Phone: 373-5869

The following samples were received from you on 09/25/08. 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
W08GR03909	B1TRD3	GPP	TRENT	Water		PDW 11/11/2008	09/25/08
		@AB-32	@ALPHA	@H3-33	~~@IC-30~~ PDW	@TC99-30	
W08GR03910	B1TRD6	GPP	TRENT	Water			09/25/08
		@2008	@AB-32	@AEA-32	@AEA-33	@ALPHA	
		@GPP6010	@H3-33	@IC-30	@SR89_90	@TC99-30	@VOA-
W08GR03911	B1TRK0	GPP	TRENT	Water			09/25/08
		@2008	@GPP6010				
W08GR03912	B1TRH8	GPP	TRENT	Water			09/25/08
		@VOA-GPP					

Test Acronym Description

Test Acronym	Description
@2008	ICP-200.8 MS All possible meta
@AB-32	Gross Alpha/Gross Beta (AB32)
@AEA-32	Uranium Isotopics by AEA
@AEA-33	Neptunium by AEA
@ALPHA	Gross Alpha on Alpha Plateau
@GPP6010	ICP Metals Analysis, Grd H20 P
@H3-33	Tritium by Liq Sct column prep
@IC-30	Anions by Ion Chromatography
@SR89_90	Strontium 89/90
@TC99-30	TC99 by Liquid Scin.
@VOA-GPP	VOA Ground Water Protection

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 7N	DATA TURNAROUND
NCO Sampler J. Helms, J. Helms, D. Helms	Trent, SJ	373-5869	WIDRIG, DL	AIR QUALITY ☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
A-C6383-M	Aquifer Tube Installation Sampling and Analysis in the 200-PO-1 OU (Shorel		F08-086		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
	HNF-N-453-1	N/A	122588ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Waste Sampling & Characterization	N/A		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegitation
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)

SPECIAL HANDLING AND/OR STORAGE
20082084

PRESERVATION	Cool~4C	HNO3 to pH <2	HCl to pH <2	None
TYPE OF CONTAINER	P	G/P	G/P	G
NO. OF CONTAINER(S)	1	1	2	1
VOLUME	500mL	500mL	1L	250mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Gross Alpha {Gross alpha} Gross Beta {Gross beta}	Technetium-99;	Tritium - Ion Ex;
	031628	031628	029409	029468

ICED

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B1TRD3 W0802037209	WATER	9-25-08	1315	X	X	X	X

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J. Helms / J. Helms	9/25/08 1445	Victor J. Sims	9/25/08 1445

SPECIAL INSTRUCTIONS
** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1)IC Anions - 300.0 {Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite}

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

A-6003-618(01/06)

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	7N	DATA TURNAROUND
NCO Sampler	Trent, SJ	373-5869	WIDRIG, DL			
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY**	☐	**45 Days / 45 Days**
D-C6359-S	Aquifer Tube Installation Sampling and Analysis in the 200-PO-1 OU (Shorel		F08-086			
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**		
	HNE-N-453-1	N/A	122588ES10	GOVERNMENT VEHICLE		
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**			
Waste Sampling & Characterization	N/A		N/A			

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegitation, 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)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C	HNO3 to pH <2	Cool~4C	HNO3 to pH <2	HNO3 to pH<2	HNO3 to pH <2	HNO3 to pH <2	HCl to pH <2	None
TYPE OF CONTAINER	aGs*	G/P	P	G/P	G/P	G/P	G/P	G/P	G
NO. OF CONTAINER(S)	4	1	1	1	1	1	1	2	1
VOLUME	40mL	500mL	500mL	500mL	1000mL	1000mL	1L	1L	250mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	Gross Alpha (Gross alpha) Gross Beta (Gross beta)	Isotopic Uranium (Uranium-233/234, Uranium-238)	Neptunium-237;	Strontium-89,90 -- Total Sr;	Technetium-99;	Tritium - Ion Ex;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1TRD6 N0622039/0	WATER	9/25/08	0900	X	X	X	X	X	X	X	X	X
				907561	031628	031628	031628	231851	→			024336

ICED

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J. Herrick	9/25/08 1445	Victor Jones	9/25/08 1445
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

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1)VOA - 8260B (TCL) {1,1,2,2-Tetrachloroethane, 1,2-Dichloroethane, Benzene, Bromodichloromethane, Carbon tetrachloride, Dibromochloromethane, Methylene chloride, Tetrachloroethene, Trichloroethene, Vinyl chloride} VOA - 8260B (Add-On) {Hexane}
(2)ICP Metals - 6010B (TAL) {Antimony, Cadmium, Chromium, Manganese, Nickel, Vanadium, Zinc} ICP Metals - 6010B (Add-On) {Arsenic, Lead, Thallium} ICP/MS - 200.8 (Add-on) {Uranium}
(3)IC Anions - 300.0 {Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite}

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

A-6003-618(01/06)

Fluor Hanford Inc. | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | F08-086-026 | PAGE 1 OF 1

COLLECTOR NCO Sampler	**COMPANY CONTACT** Trent, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** WIDRIG, DL	**PRICE CODE** 7N	**DATA TURNAROUND**
SAMPLING LOCATION D-C6359-S	**PROJECT DESIGNATION** Aquifer Tube Installation Sampling and Analysis in the 200-PO-1 OU (Shorel		**SAF NO.** F08-086	**AIR QUALITY** ☐	45 Days / 45 Days
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH** N/A	**COA** 122588ES10	**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=Vegitation, 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)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HNO3 to pH <2
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	500mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

ICED

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B1TRK0 W0862039 11	WATER	9/25/08	0900	X

0816628

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J. Herrick G. Heim	9/25/08 1445	Victor Sims	9/25/08 1445

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1)ICP Metals - 6010B (TAL) {Antimony, Cadmium, Chromium, Manganese, Nickel, Vanadium, Zinc} ICP Metals - 6010B (Add-On) {Arsenic, Lead, Thallium} ICP/MS - 200.8 (Add-on) {Uranium}

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

A-6003-618(01/06)

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 7N	DATA TURNAROUND
NCO Sampler	Trent, SJ	373-5869	WIDRIG, DL	AIR QUALITY ☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
D-C6359-S	Aquifer Tube Installation Sampling and Analysis in the 200-PO-1 OU (Shorel		F08-086		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
	HNF-N-453-1	N/A	122588ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Waste Sampling & Characterization	N/A		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegitation
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)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	4
VOLUME	40mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B1TRH8 W0806103912	WATER	9/25/08	0900	X

ICED

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J. Harris J. Harris	9/25/08 1445	V. Stevens	9/25/08 1445
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

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1)VOA - 8260B (TCL) {1,1,2,2-Tetrachloroethane, 1,2-Dichloroethane, Benzene, Bromodichloromethane, Carbon tetrachloride, Dibromochloromethane, Methylene chloride, Tetrachloroethene, Trichloroethene, Vinyl chloride} VOA - 8260B (Add-On) {Hexane}

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

A-6003-618(01/06)