0080211
REVISION 1

RECEIVED NOVEMBER 6, 2008

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

FLUOR®

M4W41-SLF-08-1228

November 6, 2008

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

Dear Mike:

THALLIUM RESULT FOR SAMPLE DELIVERY GROUP WSCF20081447 – SAF NUMBER F08-049

Reference: (1) Memo, SL Fitzgerald to H Hampt, Final Results for SDG WSCF20081447 (M4W41-SLF-08-1031), dated September 23, 2008

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

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

This letter contains the following attachments for sample delivery group WSCF20081447:

- P&D #WSCF20081447
- Analytical Results (Replacement pages 17, 22 and 23 of 53)

Please accept our apology for any inconvenience this may have created. If you have any questions, don't hesitate to call on Andy Kopriva, telephone 373-1613, for assistance.

Very truly yours,

S. L. Fitzgerald
WSCF Analytical Lab

RECEIVED
FEB 0 3 2009
EDMC

SLF/grf

Attachments
As listed

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		

M4W41-SLF-08-1031

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20081447
Data Deliverable Date: 28-aug-2008
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
F08-049	B1TTT8	W08GR02599	SOIL
	B1TTV0	W08GR02598	SOIL

M4W41-SLF-08-1031

ATTACHMENT 2

NARRATIVE

Consisting of 5 pages
Including cover page

Introduction

Three (3) S&GRP samples were received at the WSCF Laboratory on July 15, 2008. Two of the samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter. Analysis of the high concentration VOA sample and the associated Methanol Blank (B1TTT9) was not required.

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. Additionally, copy of the sample record sheet is included as Attachment 5.

It should be noted that the attached chain of custody was stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving, indicating the presence of ice in the sample container.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report,* pages 14 through 16, 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 per GRP Letter of Instruction. See page 19 for QC details. Analytical Note (s):

- Duplicate, Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1VHM0 (SDG# 20081276, SAF# F08-093).
- Sample results were D flagged if dilution(s) were required.
- Sample results that were less than the reportable limit, however greater than the method detection limit were B flagged.
- Sulfate – Duplicate Relative Percent Difference (RPD) slightly exceeded established laboratory limits. No flag issued.

All other QC controls are within the established limits.

Cyanide – 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 per GRP Letter of Instruction. See page 20 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1W182 (SDG# 20081396, SAF# F08-132).

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 per the GRP Letter of Instruction. See page 21 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1WB31 (SDG# 20081501, SAF# F08-093).

- Aluminum and Iron – Sample concentrations exceeded spiking levels by a factor of 4. Matrix Spike and Matrix Spike Duplicate recoveries exceeded established laboratory limits. Spike recoveries are not valid. Sample results were not flagged. Check standard was analyzed to ensure linearity, because the sample results exceeded the calibration standard.

- Sodium – Matrix Spike and Matrix Spike Duplicate recoveries exceeded established laboratory limits. Sample result was N flagged.

All other 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 per the GRP Letter of Instruction. See pages 22 through 23 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1V528 (SDG# 20081326, SAF# F08-101).

All QC controls are within the established limits.

Percent Solids – analyzed for organic moisture correction.

Organic Comments

Note: Sample concentrations are corrected for moisture and reported as dry weight basis.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per the GPP Letter of Instruction. See pages 30 through 35 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1W185 (SDG# 20081396, SAF# F08-132).
- Sample results that were less than the lowest calibration standard, however greater than the method detection limit, were J flagged.

All QC controls are within the established limits.

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 per the GRP Letter of Instruction. See pages 36 through 38 for QC details. Analytical Note(s):

- Analysis of the high concentration VOA sample and the associated Methanol Blank (B1WBL5) was not required.
- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1W180 (SDG# 20081396, SAF# F08-132).

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, Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 41 through 46 for QC details. Analytical Note(s):

- Americium-241 and 243 (tracer) – Duplicate QC was analyzed on sample# B1W182 (SDG# 20081396, SAF# F08-132).
- Neptunium-237 – Duplicate and Spikes were analyzed on sample# B1TTT4 (SDG# 20081265).
- Plutonium-238, 239/240 and 242 (tracer) – Duplicate QC was analyzed on sample# B1V528 (SDG# 20081326, SAF# F08-101).
- Strontium-89/90 and 85 (tracer) – Duplicate QC was analyzed on sample# B1W182 (SDG# 20081396, SAF# F08-132).
- Uranium-233/234, 235, 238 and 232 (tracer) – Duplicate QC was analyzed on sample# B1W182 (SDG# 20081396, SAF# F08-132).

All QC controls are within the established limits.

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

Scot L. Fitzgerald
WSCF Analytical Laboratory Manager

Pauline D. Mix
WSCF Client Services

Problems and Discrepancies

SDG WSCF20081447
WSCF

1. Thallium is requested but missing from this data package. Please correct and resubmit the hardcopy and electronic data packages.

WSCF Response

Action complete – Thallium result for sample# B1TTV0 was submitted to client.

M4W41-SLF-08-1031

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 38 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical: S. Fitzgerald 9/22/08

Client Services: P.D. Mix 9/21/2008

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

Contract#: FH-EIS-2003-MEM-001
Report#: WSCF20081447
Report Date: 21-sep-2008
Report WGPP/ver. 5.2
Groundwater Remediation Program

w13qlog v4.2 21-sep-2008 07:54:27

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20081447

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
				SAMPLE	W08GR02599	Percent Solids
37210	1	37647	41968	BLANK		Cyanide by Midi/Spectrophotom
37210	2	37647	41968	LCS		Cyanide by Midi/Spectrophotom
37210	4	37647	41968	MS	W08GR02378	Cyanide by Midi/Spectrophotom
37210	5	37647	41968	MSD	W08GR02378	Cyanide by Midi/Spectrophotom
37210	5	37647	41968	SPK-RPD	W08GR02378	Cyanide by Midi/Spectrophotom
37210	9	37647	41968	SAMPLE	W08GR02598	Cyanide by Midi/Spectrophotom
37238	1	37670	41986	BLANK		ICP-200.8 MS All possible meta
37238	2	37670	41986	LCS		ICP-200.8 MS All possible meta
37238	4	37670	41986	MS	W08GR02040	ICP-200.8 MS All possible meta
37238	5	37670	41986	MSD	W08GR02040	ICP-200.8 MS All possible meta
37238	5	37670	41986	SPK-RPD	W08GR02040	ICP-200.8 MS All possible meta
37238	13	37670	41986	SAMPLE	W08GR02598	ICP-200.8 MS All possible meta
37430	2	37861	42175	BLANK		Anions by Ion Chromatography
37430	17	37861	42175	BLANK		Anions by Ion Chromatography
37430	3	37861	42175	LCS		Anions by Ion Chromatography
37430	5	37861	42175	DUP	W08GR01844	Anions by Ion Chromatography
37430	6	37861	42175	MS	W08GR01844	Anions by Ion Chromatography
37430	7	37861	42175	MSD	W08GR01844	Anions by Ion Chromatography
37430	7	37861	42175	SPK-RPD	W08GR01844	Anions by Ion Chromatography
37430	16	37861	42175	SAMPLE	W08GR02598	Anions by Ion Chromatography
37959	1	38382	42909	BLANK		ICP Metals Analysis, Grd H20 P
37959	2	38382	42909	LCS		ICP Metals Analysis, Grd H20 P
37959	11	38382	42909	SAMPLE	W08GR02598	ICP Metals Analysis, Grd H20 P
37959	4	38382	42909	MS	W08GR02733	ICP Metals Analysis, Grd H20 P
37959	5	38382	42909	MSD	W08GR02733	ICP Metals Analysis, Grd H20 P
37959	5	38382	42909	SPK-RPD	W08GR02733	ICP Metals Analysis, Grd H20 P

w13qlog v4.2 21-sep-2008 07:54:27

Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20081447

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			42103	BLANK		SW-846 8270C Semi-Vols
			42103	LCS		SW-846 8270C Semi-Vols
			42103	MS	W08GR02388	SW-846 8270C Semi-Vols
			42103	MSD	W08GR02388	SW-846 8270C Semi-Vols
			42103	SPK-RPD	W08GR02388	SW-846 8270C Semi-Vols
			42103	SAMPLE	W08GR02598	SW-846 8270C Semi-Vols
			42103	SURR	W08GR02598	SW-846 8270C Semi-Vols
			42498	BLANK		VOA Ground Water Protection
			42498	LCS		VOA Ground Water Protection
			42498	MS	W08GR02380	VOA Ground Water Protection
			42498	MSD	W08GR02380	VOA Ground Water Protection
			42498	SPK-RPD	W08GR02380	VOA Ground Water Protection
			42498	SAMPLE	W08GR02599	VOA Ground Water Protection
			42498	SURR	W08GR02599	VOA Ground Water Protection

w13qlog v4.2 21-sep-2008 07:54:27

Department: Radiochemistry

W13q Worklist/Batch/QC Report for Group# WSCF20081447

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
37396	1	37821	42185	BLANK		Neptunium by AEA
37396	2	37821	42185	LCS		Neptunium by AEA
37396	3	37821	42185	DUP	W08GR01837	Neptunium by AEA
37396	5	37821	42185	MS	W08GR01837	Neptunium by AEA
37396	6	37821	42185	MSD	W08GR01837	Neptunium by AEA
37396	6	37821	42185	SPK-RPD	W08GR01837	Neptunium by AEA
37396	8	37821	42185	MS	W08GR02598	Neptunium by AEA
37396	7	37821	42185	SAMPLE	W08GR02598	Neptunium by AEA
37160	1	37586	42252	BLANK		Strontium 89/90
37160	2	37586	42252	LCS		Strontium 89/90
37160	3	37586	42252	DUP	W08GR02378	Strontium 89/90
37160	14	37586	42252	SAMPLE	W08GR02598	Strontium 89/90
37160	15	37586	42252	SURR	W08GR02598	Strontium 89/90
37273	1	37705	42315	BLANK		Gamma Energy Analysis-grd H2O
37273	2	37705	42315	LCS		Gamma Energy Analysis-grd H2O
37273	3	37705	42315	DUP	W08GR02598	Gamma Energy Analysis-grd H2O
37273	4	37705	42315	SAMPLE	W08GR02598	Gamma Energy Analysis-grd H2O
37701	1	38135	42553	BLANK		Americium by AEA
37701	2	38135	42553	LCS		Americium by AEA
37701	3	38135	42553	DUP	W08GR02378	Americium by AEA
37701	4	38135	42553	SAMPLE	W08GR02598	Americium by AEA
37701	5	38135	42553	SURR	W08GR02598	Americium by AEA
37699	1	38133	42557	BLANK		Uranium Isotopics by AEA
37699	2	38133	42557	LCS		Uranium Isotopics by AEA
37699	3	38133	42557	DUP	W08GR02378	Uranium Isotopics by AEA
37699	4	38133	42557	SAMPLE	W08GR02598	Uranium Isotopics by AEA
37699	5	38133	42557	SURR	W08GR02598	Uranium Isotopics by AEA
37700	1	38134	42558	BLANK		Plutonium Isotopics by AEA
37700	2	38134	42558	LCS		Plutonium Isotopics by AEA
37700	3	38134	42558	DUP	W08GR02378	Plutonium Isotopics by AEA
37700	4	38134	42558	SAMPLE	W08GR02598	Plutonium Isotopics by AEA
37700	5	38134	42558	SURR	W08GR02598	Plutonium 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-519-412	LA-519-412: TOTAL RESIDUE/% SOLIDS DRIED AT 103 - 105 C	
	EPA-600/4-79-020 160.1	Resisual, Filterable
	EPA-600/4-79-020 160.3	RESIDUE, TOTAL
	HEIS 160.1_TDS	Residual, Filterable
	Standard Methods 2540B	Total Solids Dried at 103-105 C
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
LA-695-402	LA-695-402: DETERMINATION OF CYANIDE BY MIDIDISTILLATION AND SPECTROPHOTOMETRIC	
	EPA-600/4-79-020 335.2	Cyanide, Total
	HEIS 335.2_CYANIDE	Cyanide, Total

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)
LA-523-456	LA-523-456: SEMIVOLATILE SAMPLE ANALYSIS BY SW-846, METHOD 8270C	
	EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
	EPA SW-846 8270C	SEMIVOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
	HEIS 8270_SVOA_GCMS	Semivolatile Orgamoc 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_GFS	Strontium 89/90
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
LA-508-481	LA-508-481: GAMMA ENERGY ANALYSIS USING PROCOUNT SOFTWARE	
	HEIS GAMMA_GS	Gamma Emmision Spectrometry

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: F08-049
Sample # W08GR02598
Client ID: B1TTV0 TRENT WSCF
Matrix: SOIL

Group #: WSCF20081447
Department: Inorganic
Sampled: 07/11/08
Received: 07/15/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography Prep											**08/04/08**
Anions by Ion Chromatography											
Chloride	16887-00-6	LA-533-410	BD	7.79	mg/kg			50.00	1.5		08/04/08
Sulfate	14808-79-8	LA-533-410	BD	34.2	mg/kg			50.00	3.5		08/04/08
Cyanide											
Cyanide	57-12-5	LA-695-402	U	< 0.171	mg/kg			0.86	0.17		07/22/08
ICP Metals Analysis, Grd H20 P Prep											**09/11/08**
ICP Metals Analysis, Grd H20 P											
Aluminum	7429-90-5	LA-505-411		8.05e+03	mg/kg			99.07	5.2		09/17/08
Iron	7439-89-6	LA-505-411		1.02e+04	mg/kg			99.07	2.5		09/17/08
Sodium	7440-23-5	LA-505-411	N	187	mg/kg			99.07	5.1		09/17/08
ICP-200.8 MS All possible meta Prep											**07/23/08**
ICP-200.8 MS All possible meta											
Antimony	7440-36-0	LA-505-412	U	< 0.270	mg/kg			0.90	0.270		07/23/08
Cadmium	7440-43-9	LA-505-412	U	< 0.0901	mg/kg			0.90	0.0901		07/23/08
Chromium	7440-47-3	LA-505-412		5.89	mg/kg			0.90	0.450		07/23/08
Mercury	7439-97-6	LA-505-412	U	< 0.0450	mg/kg			0.90	0.0450		07/23/08
Uranium	7440-61-1	LA-505-412		0.830	mg/kg			0.90	0.0450		07/23/08
Arsenic	7440-38-2	LA-505-412		1.05	mg/kg			0.90	0.360		07/23/08
Thallium	7440-28-0	LA-505-412	U	< 0.0901	mg/kg			0.90	0.100		07/23/08

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
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: F08-049
Sample # W08GR02599
Client ID: B1TTT8 TRENT WSCF
Matrix: SOIL

Group #: WSCF20081447
Department: Inorganic
Sampled: 07/11/08
Received: 07/15/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total solids											
Total solids	TS	LA-519-412		86.4	Percent			1.00	0.0		08/20/08

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
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: WSCF20081447
Matrix: SOLID
Test: Anions by Ion Chromatography

Sample Date: 06/23/08
Receive Date:06/26/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR01844											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Chloride	16887-00-6	<1.5		RPD			n/a	20.000	U	08/04/08
DUP	Sulfate	14808-79-8	4.6301		RPD			20.283	20.000 *		08/04/08
MS	Chloride	16887-00-6	1.00111	100.111	% Recov	80.000	120.000				08/04/08
MS	Sulfate	14808-79-8	1.761728	88.976	% Recov	80.000	120.000				08/04/08
MSD	Chloride	16887-00-6	0.896248	89.625	% Recov	80.000	120.000				08/04/08
MSD	Sulfate	14808-79-8	1.716028	86.668	% Recov	80.000	120.000				08/04/08
SPK-RPD	Chloride	16887-00-6	89.625		RPD			11.053	20.000		08/04/08
SPK-RPD	Sulfate	14808-79-8	86.668		RPD			2.628	20.000		08/04/08
BATCH QC											
BLANK	Chloride	16887-00-6	<3e-2	n/a	mg/L	0.000	0.030			U	08/04/08
BLANK	Chloride	16887-00-6	<3e-2	n/a	mg/L	0.000	0.030			U	08/04/08
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	08/04/08
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	08/04/08
LCS	Chloride	16887-00-6	199.4403	99.224	% Recov	80.000	120.000				08/04/08
LCS	Sulfate	14808-79-8	391.7178	98.919	% Recov	80.000	120.000				08/04/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081447
Matrix: SOLID
Test: Cyanide by Midi/Spectrophotom

Sample Date: 07/09/08
Receive Date:07/10/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02378											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Cyanide by Midi/Spectrophotom	57-12-5	1.88	97.409	% Recov	75.000	125.000				07/22/08
MSD	Cyanide by Midi/Spectrophotom	57-12-5	1.9	97.436	% Recov	75.000	125.000				07/22/08
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	97.436		RPD			0.028	20.000		07/22/08
BATCH QC											
BLANK	Cyanide by Midi/Spectrophotom	57-12-5	< 4	n/a	ug/L	-4.000	4.000			U	07/22/08
LCS	Cyanide by Midi/Spectrophotom	57-12-5	52	104.000	% Recov	85.000	115.000				07/22/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081447
Matrix: SOLID
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 07/17/08
Receive Date:07/21/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit		RQ	Analysis Date
Lab ID: W08GR02733												
BATCH QC ASSOCIATED WITH SAMPLE												
MS	Aluminum	7429-90-5	3350	3350.000	% Recov	75.000	125.000			•		09/17/08
MS	Iron	7439-89-6	-1570	-1570.000	% Recov	75.000	125.000			•		09/17/08
MS	Sodium	7440-23-5	129.5	129.500	% Recov	75.000	125.000			•		09/17/08
MSD	Aluminum	7429-90-5	3130	3133.133	% Recov	75.000	125.000			•		09/17/08
MSD	Iron	7439-89-6	-1880	-1881.882	% Recov	75.000	125.000			•		09/17/08
MSD	Sodium	7440-23-5	125.4	125.526	% Recov	75.000	125.000			•		09/17/08
SPK-RPD	Aluminum	7429-90-5	3133.133		RPD			6.690	20.000			09/17/08
SPK-RPD	Iron	7439-89-6	-1881.882		RPD			-18.070	20.000	•		09/17/08
SPK-RPD	Sodium	7440-23-5	125.526		RPD			3.117	20.000			09/17/08
BATCH QC												
BLANK	Aluminum	7429-90-5	<5.2e-2	n/a	ug/mL						U	09/17/08
BLANK	Iron	7439-89-6	<2.5e-2	n/a	ug/mL						U	09/17/08
BLANK	Sodium	7440-23-5	<5.1e-2	n/a	ug/mL						U	09/17/08
LCS	Aluminum	7429-90-5	7287	88.220	% Recov	44.000	157.000					09/17/08
LCS	Iron	7439-89-6	12510	93.358	% Recov	47.000	152.000					09/17/08
LCS	Sodium	7440-23-5	515.6	87.687	% Recov	51.000	149.000					09/17/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081447
Matrix: SOLID
Test: ICP-200.8 MS All possible meta

Sample Date: 06/30/08
Receive Date:07/02/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02040											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Arsenic	7440-38-2	188.9	94.450	% Recov	70.000	130.000				07/23/08
MS	Cadmium	7440-43-9	190.9	95.450	% Recov	70.000	130.000				07/23/08
MS	Chromium	7440-47-3	186.99	93.495	% Recov	70.000	130.000				07/23/08
MS	Mercury	7439-97-6	1.85	92.500	% Recov	70.000	130.000				07/23/08
MS	Antimony	7440-36-0	175.8	87.900	% Recov	70.000	130.000				07/23/08
MS	Thallium	7440-28-0	183.2	91.600	% Recov	70.000	130.000				07/23/08
MS	Uranium	7440-61-1	197.97	98.985	% Recov	70.000	130.000				07/23/08
MSD	Arsenic	7440-38-2	183.2	91.600	% Recov	70.000	130.000				07/23/08
MSD	Cadmium	7440-43-9	185.6	92.800	% Recov	70.000	130.000				07/23/08
MSD	Chromium	7440-47-3	180.19	90.095	% Recov	70.000	130.000				07/23/08
MSD	Mercury	7439-97-6	1.86	93.000	% Recov	70.000	130.000				07/23/08
MSD	Antimony	7440-36-0	168.9	84.450	% Recov	70.000	130.000				07/23/08
MSD	Thallium	7440-28-0	175.6	87.800	% Recov	70.000	130.000				07/23/08
MSD	Uranium	7440-61-1	189.67	94.835	% Recov	70.000	130.000				07/23/08
SPK-RPD	Arsenic	7440-38-2	91.600		RPD			3.084	20.000		07/23/08
SPK-RPD	Cadmium	7440-43-9	92.800		RPD			2.815	20.000		07/23/08
SPK-RPD	Chromium	7440-47-3	90.095		RPD			3.704	20.000		07/23/08
SPK-RPD	Mercury	7439-97-6	93.000		RPD			0.539	20.000		07/23/08
SPK-RPD	Antimony	7440-36-0	84.450		RPD			4.003	20.000		07/23/08
SPK-RPD	Thallium	7440-28-0	87.800		RPD			4.236	20.000		07/23/08
SPK-RPD	Uranium	7440-61-1	94.835		RPD			4.282	20.000		07/23/08
BATCH QC											
BLANK	Arsenic	7440-38-2	<0.4	n/a	ug/L					U	07/23/08
BLANK	Cadmium	7440-43-9	<0.1	n/a	ug/L					U	07/23/08
BLANK	Chromium	7440-47-3	<0.5	n/a	ug/L					U	07/23/08

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081447
Matrix: SOLID
Test: ICP-200.8 MS All possible meta

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Mercury	7439-97-6	<5e-2	n/a	ug/L					U	07/23/08
BLANK	Antimony	7440-36-0	<0.3	n/a	ug/L					U	07/23/08
BLANK	Thallium	7440-28-0	<0.1	n/a	ug/L					U	07/23/08
BLANK	Uranium	7440-61-1	<5e-2	n/a	ug/L					U	07/23/08
LCS	Arsenic	7440-38-2	133.9	101.439	% Recov	75.000	134.000				07/23/08
LCS	Cadmium	7440-43-9	68.8	103.459	% Recov	95.000	124.000				07/23/08
LCS	Chromium	7440-47-3	69.96	95.967	% Recov	77.000	125.000				07/23/08
LCS	Mercury	7439-97-6	8.04	97.101	% Recov	71.000	132.000				07/23/08
LCS	Antimony	7440-36-0	145.5	161.308	% Recov	114.000	260.000				07/23/08
LCS	Thallium	7440-28-0	130.6	98.195	% Recov	92.000	123.000				07/23/08
LCS	Uranium	7440-61-1	399.9	99.975	% Recov	81.000	125.000				07/23/08

REVISION 1

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F08-049

Group #: WSCF20081447
Department: Inorganic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		Organics: All results are moisture corrected and reported on a dry weight basis. cgc
				ICP-AES: Iron and aluminum sample results exceed spiking level by a factor of 4 so spike recoveries are not valid. Check and high standards used to ensure iron and aluminum linearity because sample results ere greater than the calibration standard.
				High sodium spike recoveries; "N" flag.

Lab Areas: VALGROUP - Group Validation
LOGSAMP - Login for Sample
VALTEST - Test Validation
LOGTEST - Login for Tests
TESTDATA - Test Data Entry

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-049
Sample # W08GR02598
Client ID: B1TTV0 TRENT WSCF
Matrix: SOIL

Group #: WSCF20081447
Department: Organic
Sampled: 07/11/08
Received: 07/15/08

Test Performed	CAS #	Method	RQ	Result		Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
SW-846 8270C Semi-Vols Prep												**07/22/08**
SW-846 8270C Semi-Vols												
4-Nitrophenol	100-02-7	LA-523-456	U	<	280	ug/kg			1.00	2.8e+02		07/29/08
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<	330	ug/kg			1.00	3.3e+02		07/29/08
Phenol	108-95-2	LA-523-456	U	<	190	ug/kg			1.00	1.9e+02		07/29/08
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<	190	ug/kg			1.00	1.9e+02		07/29/08
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<	190	ug/kg			1.00	1.9e+02		07/29/08
Pyrene	129-00-0	LA-523-456	U	<	190	ug/kg			1.00	1.9e+02		07/29/08
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<	190	ug/kg			1.00	1.9e+02		07/29/08
N-Nitrosodi-n-dipropylamine	621-64-7	LA-523-456	U	<	190	ug/kg			1.00	1.9e+02		07/29/08
Acenaphthene	83-32-9	LA-523-456	U	<	190	ug/kg			1.00	1.9e+02		07/29/08
Pentachlorophenol	87-86-5	LA-523-456	U	<	280	ug/kg			1.00	2.8e+02		07/29/08
2-Chlorophenol	95-57-8	LA-523-456	U	<	190	ug/kg			1.00	1.9e+02		07/29/08
4-Nitroaniline	100-01-6	LA-523-456	U	<	280	ug/kg			1.00	2.8e+02		07/29/08
4-Bromophenylphenyl ether	101-55-3	LA-523-456	U	<	190	ug/kg			1.00	1.9e+02		07/29/08
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<	300	ug/kg			1.00	3.0e+02		07/29/08
4-Chloroaniline	106-47-8	LA-523-456	U	<	420	ug/kg			1.00	4.2e+02		07/29/08
Bis(2-chloro-1-methylethyl)eth	108-60-1	LA-523-456	U	<	190	ug/kg			1.00	1.9e+02		07/29/08
Bis(2-chloroethyl) ether	111-44-4	LA-523-456	U	<	190	ug/kg			1.00	1.9e+02		07/29/08
Bis(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<	190	ug/kg			1.00	1.9e+02		07/29/08
Bis(2-ethylhexyl) phthalate	117-81-7	LA-523-456	U	<	190	ug/kg			1.00	1.9e+02		07/29/08
Di-n-octylphthalate	117-84-0	LA-523-456	U	<	280	ug/kg			1.00	2.8e+02		07/29/08
Hexachlorobenzene	118-74-1	LA-523-456	U	<	190	ug/kg			1.00	1.9e+02		07/29/08
Anthracene	120-12-7	LA-523-456	U	<	190	ug/kg			1.00	1.9e+02		07/29/08
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<	190	ug/kg			1.00	1.9e+02		07/29/08

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
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: F08-049
Sample # W08GR02598
Client ID: B1TTV0 TRENT WSCF

Matrix: SOIL

Group #: WSCF20081447
Department: Organic
Sampled: 07/11/08
Received: 07/15/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Dimethyl phthalate	131-11-3	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
Dibenzofuran	132-64-9	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
Benzo(ghi)perylene	191-24-2	LA-523-456	U	< 300	ug/kg			1.00	3.0e+02		07/29/08
Indeno(1,2,3-cd)pyrene	193-39-5	LA-523-456	U	< 330	ug/kg			1.00	3.3e+02		07/29/08
Benzo(b)fluoranthene	205-99-2	LA-523-456	U	< 240	ug/kg			1.00	2.4e+02		07/29/08
Fluoranthene	206-44-0	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
Benzo(k)fluoranthene	207-08-9	LA-523-456	U	< 240	ug/kg			1.00	2.4e+02		07/29/08
Acenaphthylene	208-96-8	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
Chrysene	218-01-9	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
Benzo(a)pyrene	50-32-8	LA-523-456	U	< 280	ug/kg			1.00	2.8e+02		07/29/08
2,4-Dinitrophenol	51-28-5	LA-523-456	U	< 830	ug/kg			1.00	8.3e+02		07/29/08
Dibenz[a,h]anthracene	53-70-3	LA-523-456	U	< 360	ug/kg			1.00	3.6e+02		07/29/08
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	< 300	ug/kg			1.00	3.0e+02		07/29/08
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	< 360	ug/kg			1.00	3.6e+02		07/29/08
Benzo(a)anthracene	56-55-3	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
4-Chlorophenylphenyl ether	7005-72-3	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	< 220	ug/kg			1.00	2.2e+02		07/29/08
Isophorone	78-59-1	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
Diethylphthalate	84-66-2	LA-523-456	U	< 290	ug/kg			1.00	2.9e+02		07/29/08
Di-n-butylphthalate	84-74-2	LA-523-456	J	1.10e+03	ug/kg			1.00	1.9e+02		07/29/08
Phenanthrene	85-01-8	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
Butylbenzylphthalate	85-68-7	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
N-Nitrosodiphenylamine	86-30-6	LA-523-456	U	< 220	ug/kg			1.00	2.2e+02		07/29/08
Fluorene	86-73-7	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
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: F08-049
Sample # W08GR02598
Client ID: B1TTV0 TRENT WSCF
Matrix: SOIL

Group #: WSCF20081447
Department: Organic
Sampled: 07/11/08
Received: 07/15/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Carbazole	86-74-8	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
Hexachlorobutadiene	87-68-3	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
2-Nitroaniline	88-74-4	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
2-Nitrophenol	88-75-5	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
Naphthalene	91-20-3	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
2-Methylnaphthalene	91-57-6	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
2-Chloronaphthalene	91-58-7	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
3,3'-Dichlorobenzidine	91-94-1	LA-523-456	U	< 360	ug/kg			1.00	3.6e+02		07/29/08
2-Methylphenol (cresol, o-)	95-48-7	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	< 330	ug/kg			1.00	3.3e+02		07/29/08
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
Nitrobenzene	98-95-3	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
3-Nitroaniline	99-09-2	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
3 & 4 Methylphenol Total	65794-96-9	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08
Hexachloroethane	67-72-1	LA-523-456	U	< 310	ug/kg			1.00	3.1e+02		07/29/08
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		07/29/08

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

B - The analyte < the RDL but >= the IDL/MDL (inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
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: F08-049
Sample # W08GR02599
Client ID: B1TTT8 TRENT WSCF

Matrix: SOIL

Group #: WSCF20081447
Department: Organic
Sampled: 07/11/08
Received: 07/15/08

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	< 1.20	ug/kg			1.00	1.2		07/22/08
Trichloroethene	79-01-6	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
Benzene	71-43-2	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
Toluene	108-88-3	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
Chlorobenzene	108-90-7	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
Ethylbenzene	100-41-4	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
Styrene	100-42-5	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
cis-1,3-Dichloropropene	10061-01-5	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
Dibromochloromethane	124-48-1	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
1,2-Dichloroethene(Total)	540-59-0	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
2-Hexanone	591-78-6	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
Acetone	67-64-1	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
Chloroform	67-66-3	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
Bromomethane	74-83-9	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
Chloromethane	74-87-3	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
Chloroethane	75-00-3	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
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: F08-049
Sample # W08GR02599
Client ID: B1TTT8 TRENT WSCF

Matrix: SOIL

Group #: WSCF20081447
Department: Organic
Sampled: 07/11/08
Received: 07/15/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Vinyl chloride	75-01-4	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
Methylenechloride	75-09-2	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
Carbon disulfide	75-15-0	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
Bromoform	75-25-2	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
Bromodichloromethane	75-27-4	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
1,2-Dichloropropane	78-87-5	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
2-Butanone	78-93-3	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		07/22/08

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
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: WSCF20081447
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 07/09/08
Receive Date:07/10/08

Lab ID: W08GR02388
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	1,2,4-Trichlorobenzene	120-82-1	4762.0	97.500	% Recov	75.000	121.000				07/29/08
MS	1,4-Dichlorobenzene	106-46-7	4898.3	100.000	% Recov	68.000	121.000				07/29/08
MS	2,4-Dinitrotoluene	121-14-2	4527.7	92.700	% Recov	66.000	113.000				07/29/08
MS	2-Fluorophenol(Surr)	367-12-4	4686.8	95.900	% Recov	72.000	120.000				07/29/08
MS	Acenaphthene	83-32-9	4605.7	94.300	% Recov	69.000	125.000				07/29/08
MS	4-Chloro-3-methylphenol	59-50-7	7607.9	104.000	% Recov	68.000	116.000				07/29/08
MS	2-Chlorophenol	95-57-8	7408.8	101.000	% Recov	65.000	124.000				07/29/08
MS	N-Nitrosodi-n-dipropylamine	621-64-7	4824.7	98.800	% Recov	69.000	127.000				07/29/08
MS	2-Fluorobiphenyl(Surr)	321-60-8	4271.8	87.400	% Recov	66.000	122.000				07/29/08
MS	Phenol	108-95-2	6522.0	89.000	% Recov	71.000	122.000				07/29/08
MS	Nitrobenzene-d5(Surr)	4165-60-0	4676.8	95.700	% Recov	63.000	125.000				07/29/08
MS	4-Nitrophenol	100-02-7	7026.5	95.900	% Recov	55.000	113.000				07/29/08
MS	Pentachlorophenol	87-86-5	6817.9	93.000	% Recov	50.000	113.000				07/29/08
MS	Phenol-d5(Surr)	4165-62-2	4698.6	96.200	% Recov	66.000	124.000				07/29/08
MS	Pyrene	129-00-0	4709.9	96.400	% Recov	67.000	125.000				07/29/08
MS	2,4,6-Tribromophenol(Surr)	118-79-6	4517.0	92.500	% Recov	49.000	120.000				07/29/08
MS	Terphenyl-d14(Surr)	98904-43-9	5066.3	104.000	% Recov	58.000	128.000				07/29/08
MSD	1,2,4-Trichlorobenzene	120-82-1	4830.9	97.500	% Recov	75.000	121.000				07/29/08
MSD	1,4-Dichlorobenzene	106-46-7	5020.8	101.000	% Recov	68.000	121.000				07/29/08
MSD	2,4-Dinitrotoluene	121-14-2	4563.7	92.100	% Recov	66.000	113.000				07/29/08
MSD	2-Fluorophenol(Surr)	367-12-4	4864.2	98.200	% Recov	72.000	120.000				07/29/08
MSD	Acenaphthene	83-32-9	4653.6	93.900	% Recov	69.000	125.000				07/29/08
MSD	4-Chloro-3-methylphenol	59-50-7	7693.9	104.000	% Recov	68.000	116.000				07/29/08
MSD	2-Chlorophenol	95-57-8	7735.9	104.000	% Recov	65.000	124.000				07/29/08
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	5019.2	101.000	% Recov	69.000	127.000				07/29/08
MSD	2-Fluorobiphenyl(Surr)	321-60-8	4503.7	90.900	% Recov	66.000	122.000				07/29/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081447
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 07/09/08
Receive Date:07/10/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Phenol	108-95-2	6898.7	92.800	% Recov	71.000	122.000				07/29/08
MSD	Nitrobenzene-d5(Surr)	4165-60-0	4915.7	99.200	% Recov	63.000	125.000				07/29/08
MSD	4-Nitrophenol	100-02-7	7526.7	101.000	% Recov	55.000	113.000				07/29/08
MSD	Pentachlorophenol	87-86-5	7082.5	95.300	% Recov	50.000	113.000				07/29/08
MSD	Phenol-d5(Surr)	4165-62-2	4994.1	101.000	% Recov	66.000	124.000				07/29/08
MSD	Pyrene	129-00-0	4633.5	93.500	% Recov	67.000	125.000				07/29/08
MSD	2,4,6-Tribromophenol(Surr)	118-79-6	4454.1	89.900	% Recov	49.000	120.000				07/29/08
MSD	Terphenyl-d14(Surr)	98904-43-9	5135.2	104.000	% Recov	58.000	128.000				07/29/08
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	97.500		RPD			0.000	20.000		07/29/08
SPK-RPD	1,4-Dichlorobenzene	106-46-7	101.000		RPD			0.995	20.000		07/29/08
SPK-RPD	2,4-Dinitrotoluene	121-14-2	92.100		RPD			0.649	20.000		07/29/08
SPK-RPD	2-Fluorophenol(Surr)	367-12-4	98.200		RPD			2.370	20.000		07/29/08
SPK-RPD	Acenaphthene	83-32-9	93.900		RPD			0.425	20.000		07/29/08
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	104.000		RPD			0.000	20.000		07/29/08
SPK-RPD	2-Chlorophenol	95-57-8	104.000		RPD			2.927	20.000		07/29/08
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	101.000		RPD			2.202	20.000		07/29/08
SPK-RPD	2-Fluorobiphenyl(Surr)	321-60-8	90.900		RPD			3.926	20.000		07/29/08
SPK-RPD	Phenol	108-95-2	92.800		RPD			4.180	20.000		07/29/08
SPK-RPD	Nitrobenzene-d5(Surr)	4165-60-0	99.200		RPD			3.592	20.000		07/29/08
SPK-RPD	4-Nitrophenol	100-02-7	101.000		RPD			5.180	20.000		07/29/08
SPK-RPD	Pentachlorophenol	87-86-5	95.300		RPD			2.443	20.000		07/29/08
SPK-RPD	Phenol-d5(Surr)	4165-62-2	101.000		RPD			4.868	20.000		07/29/08
SPK-RPD	Pyrene	129-00-0	93.500		RPD			3.054	20.000		07/29/08
SPK-RPD	2,4,6-Tribromophenol(Surr)	118-79-6	89.900		RPD			2.851	20.000		07/29/08
SPK-RPD	Terphenyl-d14(Surr)	98904-43-9	104.000		RPD			0.000	20.000		07/29/08

Lab ID: W08GR02598
BATCH QC ASSOCIATED WITH SAMPLE

SURR	2-Fluorophenol(Surr)	367-12-4	5075.2	91.600	% Recov	72.000	120.000				07/29/08
SURR	2-Fluorobiphenyl(Surr)	321-60-8	4598.8	83.000	% Recov	66.000	122.000				07/29/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081447
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 07/11/08
Receive Date:07/15/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SURR	Nitrobenzene-d5(Surr)	4165-60-0	4921.3	88.800	% Recov	63.000	125.000				07/29/08
SURR	Phenol-d5(Surr)	4165-62-2	5061.2	91.300	% Recov	66.000	124.000				07/29/08
SURR	2,4,6-Tribromophenol(Surr)	118-79-6	4422.2	79.800	% Recov	49.000	120.000				07/29/08
SURR	Terphenyl-d14(Surr)	98904-43-9	5665.6	102.000	% Recov	58.000	128.000				07/29/08
BATCH QC											
BLANK	1,2-Dichlorobenzene	95-50-1	< 240	n/a	ug/Kg					U	07/29/08
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 140	n/a	ug/Kg					U	07/29/08
BLANK	1,3-Dichlorobenzene	541-73-1	< 260	n/a	ug/Kg					U	07/29/08
BLANK	1,4-Dichlorobenzene	106-46-7	< 240	n/a	ug/Kg					U	07/29/08
BLANK	2,4-Dichlorophenol	120-83-2	< 140	n/a	ug/Kg					U	07/29/08
BLANK	2,4-Dinitrotoluene	121-14-2	< 140	n/a	ug/Kg					U	07/29/08
BLANK	2,4,5-Trichlorophenol	95-95-4	< 140	n/a	ug/Kg					U	07/29/08
BLANK	2,4,6-Trichlorophenol	88-06-2	< 140	n/a	ug/Kg					U	07/29/08
BLANK	2,4-Dimethylphenol	105-67-9	< 220	n/a	ug/Kg					U	07/29/08
BLANK	2,6-Dinitrotoluene	606-20-2	< 140	n/a	ug/Kg					U	07/29/08
BLANK	2-Chloronaphthalene	91-58-7	< 140	n/a	ug/Kg					U	07/29/08
BLANK	2-Fluorophenol(Surr)	367-12-4	4215.7	105.000	% Recov	72.000	120.000				07/29/08
BLANK	2-Methylnaphthalene	91-57-6	< 140	n/a	ug/Kg					U	07/29/08
BLANK	2-Methylphenol (cresol, o-)	95-48-7	< 140	n/a	ug/Kg					U	07/29/08
BLANK	2-Nitroaniline	88-74-4	< 140	n/a	ug/Kg					U	07/29/08
BLANK	2-Nitrophenol	88-75-5	< 140	n/a	ug/Kg					U	07/29/08
BLANK	3 & 4 Methylphenol Total	65794-96-9	< 140	n/a	ug/Kg					U	07/29/08
BLANK	3-Nitroaniline	99-09-2	< 140	n/a	ug/Kg					U	07/29/08
BLANK	4,6-Dinitro-2-methylphenol	534-52-1	< 220	n/a	ug/Kg					U	07/29/08
BLANK	4-Bromophenylphenyl ether	101-55-3	< 140	n/a	ug/Kg					U	07/29/08
BLANK	4-Chlorophenylphenyl ether	7005-72-3	< 140	n/a	ug/Kg					U	07/29/08
BLANK	Acenaphthene	83-32-9	< 140	n/a	ug/Kg					U	07/29/08
BLANK	Acenaphthylene	208-96-8	< 140	n/a	ug/Kg					U	07/29/08
BLANK	Anthracene	120-12-7	< 140	n/a	ug/Kg					U	07/29/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081447
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Bis(2-chloroethyl) ether	111-44-4	< 140	n/a	ug/Kg					U	07/29/08
BLANK	Benzo(a)anthracene	56-55-3	< 140	n/a	ug/Kg					U	07/29/08
BLANK	Benzo(b)fluoranthene	205-99-2	< 170	n/a	ug/Kg					U	07/29/08
BLANK	Benzo(ghi)perylene	191-24-2	< 220	n/a	ug/Kg					U	07/29/08
BLANK	Benzo(a)pyrene	50-32-8	< 200	n/a	ug/Kg					U	07/29/08
BLANK	Bis(2-Chloroethoxy)methane	111-91-1	< 140	n/a	ug/Kg					U	07/29/08
BLANK	Bis(2-ethylhexyl) phthalate	117-81-7	< 140	n/a	ug/Kg					U	07/29/08
BLANK	Bis(2-chloro-1-methylethyl)eth	108-60-1	< 140	n/a	ug/Kg					U	07/29/08
BLANK	Benzo(k)fluoranthene	207-08-9	< 170	n/a	ug/Kg					U	07/29/08
BLANK	Butylbenzylphthalate	85-68-7	< 140	n/a	ug/Kg					U	07/29/08
BLANK	Carbazole	86-74-8	< 140	n/a	ug/Kg					U	07/29/08
BLANK	4-Chloroaniline	106-47-8	< 300	n/a	ug/Kg					U	07/29/08
BLANK	4-Chloro-3-methylphenol	59-50-7	< 140	n/a	ug/Kg					U	07/29/08
BLANK	2-Chlorophenol	95-57-8	< 140	n/a	ug/Kg					U	07/29/08
BLANK	Chrysene	218-01-9	< 140	n/a	ug/Kg					U	07/29/08
BLANK	3,3'-Dichlorobenzidine	91-94-1	< 260	n/a	ug/Kg					U	07/29/08
BLANK	Dibenz[a,h]anthracene	53-70-3	< 260	n/a	ug/Kg					U	07/29/08
BLANK	Dibenzofuran	132-64-9	< 140	n/a	ug/Kg					U	07/29/08
BLANK	Di-n-butylphthalate	84-74-2	< 140	n/a	ug/Kg					U	07/29/08
BLANK	Diethylphthalate	84-66-2	< 210	n/a	ug/Kg					U	07/29/08
BLANK	Dimethyl phthalate	131-11-3	< 140	n/a	ug/Kg					U	07/29/08
BLANK	2,4-Dinitrophenol	51-28-5	< 600	n/a	ug/Kg					U	07/29/08
BLANK	Di-n-octylphthalate	117-84-0	< 200	n/a	ug/Kg					U	07/29/08
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 140	n/a	ug/Kg					U	07/29/08
BLANK	2-Fluorobiphenyl(Surr)	321-60-8	4443.2	111.000	% Recov	66.000	122.000				07/29/08
BLANK	Fluorene	86-73-7	< 140	n/a	ug/Kg					U	07/29/08
BLANK	Fluoranthene	206-44-0	< 140	n/a	ug/Kg					U	07/29/08
BLANK	Hexachlorobenzene	118-74-1	< 140	n/a	ug/Kg					U	07/29/08
BLANK	Hexachlorobutadiene	87-68-3	< 140	n/a	ug/Kg					U	07/29/08
BLANK	Hexachlorocyclopentadiene	77-47-4	< 160	n/a	ug/Kg					U	07/29/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081447
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Hexachloroethane	67-72-1	< 230	n/a	ug/Kg					U	07/29/08
BLANK	Indeno(1,2,3-cd)pyrene	193-39-5	< 240	n/a	ug/Kg					U	07/29/08
BLANK	Isophorone	78-59-1	< 140	n/a	ug/Kg					U	07/29/08
BLANK	Phenol	108-95-2	< 140	n/a	ug/Kg					U	07/29/08
BLANK	Naphthalene	91-20-3	< 140	n/a	ug/Kg					U	07/29/08
BLANK	Nitrobenzene-d5(Surr)	4165-60-0	4510.6	113.000	% Recov	63.000	125.000				07/29/08
BLANK	Nitrobenzene	98-95-3	< 140	n/a	ug/Kg					U	07/29/08
BLANK	4-Nitrophenol	100-02-7	< 200	n/a	ug/Kg					U	07/29/08
BLANK	4-Nitroaniline	100-01-6	< 200	n/a	ug/Kg					U	07/29/08
BLANK	N-Nitrosodiphenylamine	86-30-6	< 160	n/a	ug/Kg					U	07/29/08
BLANK	Pentachlorophenol	87-86-5	< 200	n/a	ug/Kg					U	07/29/08
BLANK	Phenanthrene	85-01-8	< 140	n/a	ug/Kg					U	07/29/08
BLANK	Phenol-d5(Surr)	4165-62-2	4318.0	108.000	% Recov	66.000	124.000				07/29/08
BLANK	Pyrene	129-00-0	< 140	n/a	ug/Kg					U	07/29/08
BLANK	2,4,6-Tribromophenol(Surr)	118-79-6	3661.9	91.500	% Recov	49.000	120.000				07/29/08
BLANK	Terphenyl-d14(Surr)	98904-43-9	4866.1	122.000	% Recov	58.000	128.000				07/29/08
LCS	1,2,4-Trichlorobenzene	120-82-1	4345.6	109.000	% Recov	76.000	118.000				07/29/08
LCS	1,4-Dichlorobenzene	106-46-7	4439.4	111.000	% Recov	68.000	121.000				07/29/08
LCS	2,4-Dinitrotoluene	121-14-2	4038.3	101.000	% Recov	68.000	112.000				07/29/08
LCS	2-Fluorophenol(Surr)	367-12-4	4184.5	105.000	% Recov	50.000	110.000				07/29/08
LCS	Acenaphthene	83-32-9	4308.4	108.000	% Recov	75.000	121.000				07/29/08
LCS	4-Chloro-3-methylphenol	59-50-7	6650.9	111.000	% Recov	68.000	117.000				07/29/08
LCS	2-Chlorophenol	95-57-8	6536.8	109.000	% Recov	84.000	114.000				07/29/08
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	4410.6	110.000	% Recov	76.000	119.000				07/29/08
LCS	2-Fluorobiphenyl(Surr)	321-60-8	4174.4	104.000	% Recov	58.000	109.000				07/29/08
LCS	Phenol	108-95-2	5791.1	96.500	% Recov	80.000	113.000				07/29/08
LCS	Nitrobenzene-d5(Surr)	4165-60-0	4203.9	105.000	% Recov	60.000	118.000				07/29/08
LCS	4-Nitrophenol	100-02-7	5210.4	86.800	% Recov	42.000	123.000				07/29/08
LCS	Pentachlorophenol	87-86-5	5481.9	91.400	% Recov	55.000	120.000				07/29/08
LCS	Phenol-d5(Surr)	4165-62-2	4237.2	106.000	% Recov	59.000	116.000				07/29/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081447
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	Pyrene	129-00-0	4639.9	116.000	% Recov	67.000	122.000				07/29/08
LCS	2,4,6-Tribromophenol(Surr)	118-79-6	3907.9	97.700	% Recov	60.000	120.000				07/29/08
LCS	Terphenyl-d14(Surr)	98904-43-9	4665.9	117.000	% Recov	60.000	120.000				07/29/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081447
Matrix: SOLID
Test: VOA Ground Water Protection

Sample Date: 07/09/08
Receive Date:07/10/08

Lab ID: W08GR02380
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	47.220	115.000	% Recov	63.000	117.000				07/18/08
MS	Benzene	71-43-2	44.310	108.000	% Recov	75.000	129.000				07/18/08
MS	4-Bromofluorobenzene(Surr)	460-00-4	84.620	103.000	% Recov	75.000	125.000				07/18/08
MS	Chlorobenzene	108-90-7	43.530	106.000	% Recov	79.000	119.000				07/18/08
MS	1,2-Dichloroethane-d4(Surr)	17060-07-0	92.850	113.000	% Recov	75.000	125.000				07/18/08
MS	Toluene-d8(Surr)	2037-26-5	81.220	99.000	% Recov	75.000	125.000				07/18/08
MS	Toluene	108-88-3	45.130	110.000	% Recov	76.000	120.000				07/18/08
MS	Trichloroethene	79-01-6	39.000	95.000	% Recov	73.000	123.000				07/18/08
MSD	1,1-Dichloroethene	75-35-4	33.240	112.000	% Recov	63.000	117.000				07/18/08
MSD	Benzene	71-43-2	32.230	109.000	% Recov	75.000	129.000				07/18/08
MSD	4-Bromofluorobenzene(Surr)	460-00-4	59.810	101.000	% Recov	75.000	125.000				07/18/08
MSD	Chlorobenzene	108-90-7	31.740	107.000	% Recov	79.000	119.000				07/18/08
MSD	1,2-Dichloroethane-d4(Surr)	17060-07-0	67.200	113.000	% Recov	75.000	125.000				07/18/08
MSD	Toluene-d8(Surr)	2037-26-5	59.460	100.000	% Recov	75.000	125.000				07/18/08
MSD	Toluene	108-88-3	33.280	112.000	% Recov	76.000	120.000				07/18/08
MSD	Trichloroethene	79-01-6	28.260	95.300	% Recov	73.000	123.000				07/18/08
SPK-RPD	1,1-Dichloroethene	75-35-4	112.000		RPD			2.643	20.000		07/18/08
SPK-RPD	Benzene	71-43-2	109.000		RPD			0.922	20.000		07/18/08
SPK-RPD	4-Bromofluorobenzene(Surr)	460-00-4	101.000		RPD			1.961	20.000		07/18/08
SPK-RPD	Chlorobenzene	108-90-7	107.000		RPD			0.939	20.000		07/18/08
SPK-RPD	1,2-Dichloroethane-d4(Surr)	17060-07-0	113.000		RPD			0.000	20.000		07/18/08
SPK-RPD	Toluene-d8(Surr)	2037-26-5	100.000		RPD			1.005	20.000		07/18/08
SPK-RPD	Toluene	108-88-3	112.000		RPD			1.802	20.000		07/18/08
SPK-RPD	Trichloroethene	79-01-6	95.300		RPD			0.315	20.000		07/18/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081447
Matrix: SOLID
Test: VOA Ground Water Protection

Sample Date: 07/11/08
Receive Date:07/15/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02599											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	60.950	105.000	% Recov	75.000	125.000				07/22/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	64.620	112.000	% Recov	75.000	125.000				07/22/08
SURR	Toluene-d8(Surr)	2037-26-5	58.830	102.000	% Recov	80.000	126.000				07/22/08
BATCH QC											
BLANK	1,1-Dichloroethane	75-34-3	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	1,1,1-Trichloroethane	71-55-6	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	1,1,2-Trichloroethane	79-00-5	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	1,1-Dichloroethene	75-35-4	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	1,2-Dichloroethane	107-06-2	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	1,2-Dichloroethene(Total)	540-59-0	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	2-Hexanone	591-78-6	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	4-Methyl-2-Pentanone	108-10-1	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	Acetone	67-64-1	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	Bromodichloromethane	75-27-4	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	4-Bromofluorobenzene(Surr)	460-00-4	51.790	104.000	% Recov	75.000	125.000				07/18/08
BLANK	Bromoform	75-25-2	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	Carbon disulfide	75-15-0	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	Carbon tetrachloride	56-23-5	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	Dibromochloromethane	124-48-1	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	Chloroform	67-66-3	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	cis-1,3-Dichloropropene	10061-01-5	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	Chloroethane	75-00-3	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	1,2-Dichloroethane-d4(Surr)	17060-07-0	56.440	113.000	% Recov	75.000	125.000				07/18/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081447
Matrix: SOLID
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	1,2-Dichloropropane	78-87-5	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	Ethylbenzene	100-41-4	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	Bromomethane	74-83-9	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	Chloromethane	74-87-3	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	2-Butanone	78-93-3	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	Methylenechloride	75-09-2	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	Tetrachloroethene	127-18-4	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	Styrene	100-42-5	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	Xylenes (total)	1330-20-7	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	Toluene-d8(Surr)	2037-26-5	49.770	99.500	% Recov	80.000	126.000				07/18/08
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	trans-1,3-Dichloropropene	10061-02-6	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	Trichloroethene	79-01-6	< 1.0	n/a	ug/Kg					U	07/18/08
BLANK	Vinyl chloride	75-01-4	< 1.0	n/a	ug/Kg					U	07/18/08
LCS	1,1-Dichloroethene	75-35-4	27.500	110.000	% Recov	75.000	125.000				07/18/08
LCS	Benzene	71-43-2	25.700	103.000	% Recov	75.000	125.000				07/18/08
LCS	4-Bromofluorobenzene(Surr)	460-00-4	51.720	103.000	% Recov	75.000	125.000				07/18/08
LCS	Chlorobenzene	108-90-7	26.130	105.000	% Recov	75.000	125.000				07/18/08
LCS	1,2-Dichloroethane-d4(Surr)	17060-07-0	54.460	109.000	% Recov	75.000	125.000				07/18/08
LCS	Toluene-d8(Surr)	2037-26-5	50.430	101.000	% Recov	80.000	126.000				07/18/08
LCS	Toluene	108-88-3	25.890	104.000	% Recov	75.000	125.000				07/18/08
LCS	Trichloroethene	79-01-6	21.850	87.400	% Recov	75.000	125.000				07/18/08

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-049
Sample # W08GR02598
Client ID: B1TTV0 TRENT WSCF
Matrix: SOIL

Group #: WSCF20081447
Department: Radiochemistry
Sampled: 07/11/08
Received: 07/15/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Americium by AEA											
Americium-241	14596-10-2	LA-508-471	U	3.10e-03	pCi/g	+-0.0252	pCi/g	1.00	0.045		08/20/08
Am-243 tracer by AEA	AM243	LA-508-471		3.90	pCi/g			1.00	0.014		08/20/08
Gamma Energy Analysis-grd H2O											
Cobalt-60	10198-40-0	LA-508-481	U	8.80e-03	pCi/g	+-6.04e-03	pCi/g	1.00	9.4e-03		08/06/08
Cesium-137	10045-97-3	LA-508-481	U	-4.92e-03	pCi/g	+-6.84e-03	pCi/g	1.00	9.8e-03		08/06/08
Neptunium by AEA											
Neptunium-237	13994-20-2	LA-508-471	U	7.60e-03	pCi/g	+-9.50e-03	pCi/g	1.00	0.014		08/04/08
Plutonium Isotopics by AEA											
Plutonium-238	13981-16-3	LA-508-471	U	1.80e-03	pCi/g	+-0.0180	pCi/g	1.00	0.030		08/20/08
Pu-239/240 by AEA	PU-239/240	LA-508-471	U	1.80e-03	pCi/g	+-0.0180	pCi/g	1.00	0.019		08/20/08
Pu-242 tracer by AEA	PU242	LA-508-471		6.10	pCi/g			1.00	0.013		08/20/08
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415	U	-0.620	pCi/g	+-0.756	pCi/g	1.00	0.33		07/21/08
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		98.7	Percent			1.00	0.0		07/21/08
Uranium Isotopics by AEA											
Uranium-233/234	U-233/234	LA-508-471		0.350	pCi/g	+-0.105	pCi/g	1.00	0.018		08/20/08
Uranium-235	15117-96-1	LA-508-471		0.0300	pCi/g	+-0.0177	pCi/g	1.00	5.9e-03		08/20/08
Uranium-238	U-238	LA-508-471		0.290	pCi/g	+-0.0899	pCi/g	1.00	0.015		08/20/08
U-232 tracer by AEA	U232	LA-508-471		4.00	pCi/g			1.00	0.021		08/20/08

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent
Project Number F08-049 :F08-049

Group #: WSCF20081447
Department: Radiochemistry

Sample #	Client ID		Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	AC-228				0.83	pCi/g
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	AC-228 Count Error				16	%
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	BI-212				0.62	pCi/g
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	BI-212 Count Error				18	%
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	BI-214				0.83	pCi/g
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	BI-214 Count Error				10	%
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	CS-134				0.045	pCi/g
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	CS-134 Count Error				29	%
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	K-40				13	pCi/g
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	K-40 Count Error				13	%
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	PB-212				1.1	pCi/g
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	PB-212 Count Error				9.5	%
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	PB-214				1.2	pCi/g
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	PB-214 Count Error				18	%
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	RA-226				0.71	pCi/g
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	RA-226 Count Error				16	%
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	RA-228				0.97	pCi/g
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	RA-228 Count Error				16	%
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	SN-126				0.23	pCi/g
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	SN-126 Count Error				20	%
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	TH-234				1.1	pCi/g
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	TH-234 Count Error				22	%
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	TL-208				0.35	pCi/g
W08GR02598	B1TTV0	TRENT	Gamma Energy Analysis-grd H2O	TL-208 Count Error				12	%

RQ=Result Qualifier

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081447
Matrix: SOLID
Test: Gamma Energy Analysis-grd H2O

Sample Date: 07/11/08
Receive Date:07/15/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02598											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Cobalt-60	10198-40-0	U3.809e-3		RPD			n/a	20.000		08/06/08
DUP	Cesium-137	10045-97-3	U-2.96e-3		RPD			n/a	20.000		08/06/08
BATCH QC											
BLANK	Cobalt-60	10198-40-0	U-2.31e-3	n/a	pCi/g	-10.000	1000.000				08/07/08
BLANK	Cesium-137	10045-97-3	U-3.338e-3	n/a	pCi/g	-10.000	1000.000				08/07/08
LCS	Cobalt-60	10198-40-0	10360	104.225	% Recov	80.000	120.000				08/11/08
LCS	Cesium-137	10045-97-3	6450	106.788	% Recov	80.000	120.000				08/11/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081447
Matrix: SOLID
Test: Americium by AEA

Sample Date: 07/09/08
Receive Date:07/10/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02378											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Americium-241	14596-10-2	U2.1e-2		RPD			n/a	20.000		08/20/08
DUP	Am-243 tracer by AEA	AM243	3.894	92.970	% Recov	30.000	105.000				08/20/08
Lab ID: W08GR02598											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Am-243 tracer by AEA	AM243	3.932	104.210	% Recov	30.000	105.000				08/20/08
BATCH QC											
BLANK	Americium-241	14596-10-2	U2.4e-2	n/a	pCi/g	-10.000	1000.000				08/20/08
BLANK	Am-243 tracer by AEA	AM243	4.003	88.090	% Recov	30.000	105.000				08/20/08
LCS	Americium-241	14596-10-2	12.76	107.679	% Recov	80.000	120.000				08/20/08
LCS	Am-243 tracer by AEA	AM243	11.11	85.950	% Recov	30.000	105.000				08/20/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081447
Matrix: SOLID
Test: Neptunium by AEA

Sample Date: 06/24/08
Receive Date:06/24/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR01837											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Neptunium-237	13994-20-2	U1.8e-3		RPD			n/a	25.000		08/01/08
MS	Neptunium-237	13994-20-2	95.4	95.400	% Recov	75.000	125.000				08/01/08
MSD	Neptunium-237	13994-20-2	93.4	93.400	% Recov	75.000	125.000				08/01/08
SPK-RPD	Neptunium-237	13994-20-2	93.400		% RPD			2.119	20.000		08/04/08
Lab ID: W08GR02598											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Neptunium-237	13994-20-2	95.1	95.100	% Recov	75.000	125.000				08/04/08
BATCH QC											
BLANK	Neptunium-237	13994-20-2	U7.2e-3	n/a	pCi/G	-10.000	1000.000				08/01/08
LCS	Neptunium-237	13994-20-2	10.45	81.993	% Recov	80.000	120.000				08/01/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081447
Matrix: SOLID
Test: Plutonium Isotopics by AEA

Sample Date: 07/09/08
Receive Date:07/10/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02378											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Plutonium-238	13981-16-3	U1.6e-2		RPD			n/a	20.000		08/20/08
DUP	Pu-239/240 by AEA	PU-239/240	U-3.7e-3		RPD			n/a	20.000		08/20/08
DUP	Pu-242 tracer by AEA	PU242	6.066	86.560	% Recov	30.000	105.000				08/20/08
Lab ID: W08GR02598											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Pu-242 tracer by AEA	PU242	6.126	97.330	% Recov	30.000	105.000				08/20/08
BATCH QC											
BLANK	Plutonium-238	13981-16-3	U2.6e-2	n/a	pCi/g	-10.000	1000.000				08/20/08
BLANK	Pu-239/240 by AEA	PU-239/240	U1.9e-3	n/a	pCi/g	-10.000	1000.000				08/20/08
BLANK	Pu-242 tracer by AEA	PU242	6.236	90.030	% Recov	30.000	105.000				08/20/08
LCS	Pu-239/240 by AEA	PU-239/240	13.13	102.219	% Recov	80.000	120.000				08/20/08
LCS	Pu-242 tracer by AEA	PU242	17.3	85.500	% Recov	30.000	105.000				08/20/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081447
Matrix: SOLID
Test: Strontium 89/90

Sample Date: 07/09/08
Receive Date:07/10/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02378											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Sr-85 Tracer by Beta Counting	SR85	97.6	97.600	% Recov	30.000	105.000				07/21/08
DUP	Strontium-89/90	SR-RAD	U-5.2E-01		RPD			n/a	20.000		07/21/08
Lab ID: W08GR02598											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Sr-85 Tracer by Beta Counting	SR85	98.7	98.700	% Recov	30.000	105.000				07/21/08
BATCH QC											
BLANK	Sr-85 Tracer by Beta Counting	SR85	97.1	97.100	% Recov	30.000	105.000				07/21/08
BLANK	Strontium-89/90	10098-97-2	U-1.2	n/a	pCi/g	-10.000	300.000				07/21/08
LCS	Sr-85 Tracer by Beta Counting	SR85	84	84.000	% Recov	30.000	105.000				07/21/08
LCS	Strontium-89/90	10098-97-2	76.5	110.199	% Recov	80.000	120.000				07/21/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081447
Matrix: SOLID
Test: Uranium Isotopics by AEA

Sample Date: 07/09/08
Receive Date:07/10/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02378											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	U-232 tracer by AEA	U232	3.98	103.820	% Recov	30.000	105.000				08/22/08
DUP	Uranium-233/234	U-233/234	0.3		RPD			6.452	20.000		08/22/08
DUP	Uranium-235	15117-96-1	2.2e-2		RPD			16.667	20.000		08/22/08
DUP	Uranium-238	U-238	0.39		RPD			12.048	20.000		08/22/08
Lab ID: W08GR02598											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	U-232 tracer by AEA	U232	4.019	83.000	% Recov	30.000	105.000				08/20/08
BATCH QC											
BLANK	U-232 tracer by AEA	U232	4.092	90.740	% Recov	30.000	105.000				08/20/08
BLANK	Uranium-233/234	13966-29-5	9e-3	0.009	pCi/g	-10.000	1000.000				08/20/08
BLANK	Uranium-235	15117-96-1	U2e-3	n/a	pCi/g	-10.000	1000.000				08/20/08
BLANK	Uranium-238	24678-82-8	U3.6e-3	n/a	pCi/g	-10.000	1000.000				08/20/08
LCS	U-232 tracer by AEA	U232	11.35	87.580	% Recov	30.000	105.000				08/20/08
LCS	Uranium-233/234	13966-29-5	n/a	n/a	% Recov	75.000	125.000				08/20/08
LCS	Uranium-235	15117-96-1	n/a	n/a	% Recov	75.000	125.000				08/20/08
LCS	Uranium-238	24678-82-8	20.44	107.834	% Recov	80.000	120.000				08/20/08

M4W41-SLF-08-1031

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 5 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

08/28/08

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program
Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 123516/ES10
Group#: 20081447
Project#: F08-049
Proj Mgr: Steve Trent E6-35
Phone: 373-5869

The following samples were received from you on 07/15/08. 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
W08GR02598	B1TTV0	TRENT	Solid, or handle as if solid	07/11/08
		@2008 @AEA-30 @AEA-31 @AEA-32 @AEA-33		
		@GEA-GPP @GPP6010 @IC-30 @SR89_90 @SVOCGPP CN-02		
W08GR02599	B1TTT8	TRENT	Solid, or handle as if solid	07/11/08
		@VOA-GPP PERSOLID		
W08GR02600	B1TTT9	TRENT	Solid, or handle as if solid	07/11/08
		@VOA-GPP		

Test Acronym Description

Test Acronym	Description
@2008	ICP-200.8 MS All possible meta
@AEA-30	Plutonium Isotopics by AEA
@AEA-31	Americium by AEA
@AEA-32	Uranium Isotopics by AEA
@AEA-33	Neptunium by AEA
@GEA-GPP	Gamma Energy Analysis-grd H2O
@GPP6010	ICP Metals Analysis, Grd H20 P
@IC-30	Anions by Ion Chromatography
@SR89_90	Strontium 89/90
@SVOCGPP	SW-846 8270C Semi-Vols
@VOA-GPP	VOA Ground Water Protection
CN-02	Cyanide by Midi/Spectrophotom
PERSOLID	Percent Solids

Fluor Hanford Inc. 08/28/08

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST F08-049-009 PAGE 1 OF 1

COLLECTOR NCO SAMPLER Futh	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** WIDRIG, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C5853, I-030	**PROJECT DESIGNATION** 200-BP-5 OU Characterization for G Well - Soil		**SAF NO.** F08-049	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-488-1	**ACTUAL SAMPLE DEPTH** 347.8-350.3	**COA** 123516ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization 20081447	**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 are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE
Radioactive Tie To: B1TVJ7

PRESERVATION	Cool~4C	None	None
TYPE OF CONTAINER	aG	G/P	Square Bottle - Poly
NO. OF CONTAINER(S)	1	1	1
VOLUME	250mL	250mL	500mL
SAMPLE ANALYSIS	Semi-VOA - 8270B (TCL);	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2008 …	SEE ITEM (2) IN SPECIAL INSTRUCTIONS GEA …

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B1TTV0 W08GR02598	SOIL	7-11-08	1250	✓	✓	✓

ICED

Lot# C28438 029938 2110-001

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
C Futhm [signature]	7-11-08 1420	MO 413 Fridge	7-11-08 1420
MO413 Fridge	7-15-8 0900	D Connolly [signature]	7-15-8 0900
D Connolly [signature]	7-15-8 0950	CA Hudson [signature]	7-15-8 0950

SPECIAL INSTRUCTIONS
** Analytical batch QC must be run on a sample associated with this SAF.
(1)ICP/MS - 200.8 (TAL) {Antimony, Cadmium, Chromium} ICP/MS - 200.8 (Add-on) {Arsenic, Thallium, Uranium} ICP Metals - 6010B (TAL) {Aluminum, Iron, Sodium} 200.8_HG - ICPMS; Cyanide (Total) - 335.2; IC Anions - 300.0 {Chloride, Sulfate}
(2)Gamma Spectroscopy {Cesium-137, Cobalt-60} Isotopic Plutonium; Isotopic Uranium; Neptunium-237; Strontium-89,90 -- Total Sr; Americium-241;

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 | F08-049-007 | PAGE 1 OF 1

COLLECTOR NCO SAMPLER Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** WIDRIG, DL
SAMPLING LOCATION C5853, I-030	**PROJECT DESIGNATION** 200-BP-5 OU Characterization for G Well - Soil		**SAF NO.** F08-049
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-484-1	**ACTUAL SAMPLE DEPTH** 347.8 -350.3	**COA** 123516ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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 are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE
Radioactive Tie To: B1TVJ7

PRESERVATION	iCool~4C	Cool <-7C and >-20C
TYPE OF CONTAINER	aGs*	aGs*
NO. OF CONTAINER(S)	3	5
VOLUME	40mL	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (HIGH LEVEL);	VOA - 5035/8260 (LOW LEVEL);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B1TTT8 2599	SOIL	7-11-04	1250	✓	✓

ICED

LOT* 7129080 7129080

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
C Fulton/	7-11-04 1420	M0413 Fridge & Freezer	7-11-04 1420
M0413 Fridge & Freezer	7-15-4 0800	DConnolly DS	7-15-4 0700
DConnolly DS	7-15-4 0850	CA Hildon	7-15-4 0850

SPECIAL INSTRUCTIONS

** Analytical batch QC must be run on a sample associated with this SAF.
** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.

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

Fluor Hanford Inc. 08/28/08

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F08-049-008 PAGE 1 OF 1

COLLECTOR NCO SAMPLER Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** WIDRIG, DL	**PRICE CODE** 8N
SAMPLING LOCATION C5853, I-030	**PROJECT DESIGNATION** 200-BP-5 OU Characterization for G Well - Soil		**SAF NO.** F08-049	**AIR QUALITY** ☐
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-488-1	**ACTUAL SAMPLE DEPTH** 347.8-350.3	**COA** 123516ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Waste Sampling & Characterization 2008/447	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

DATA TURNAROUND 45 Days / 45 Days

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 are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE
Radioactive Tie To: B1TVJ7

PRESERVATION	Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (TCL);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B1TTT9 2600	SOIL	7-1-08	1250	ICED

LOT# 7129080

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
C Fulton/[illegible]	7-11-08 1420	M0413 Fridge	7-11-08 1420
M0413 Fridge	7-15-8 0900	D Connolly [illegible]	7-15-8 0900
D Connolly [illegible]	7-15-8 0950	CA Hudson [illegible]	7-15-8 0950

SPECIAL INSTRUCTIONS

** Analytical batch QC must be run on a sample associated with this SAF.
** All VOA samples will be collected using EPA Method 5035A.

LABORATORY SECTION RECEIVED BY | TITLE | DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD | DISPOSED BY | DATE/TIME

A-6003-618(01/06)

M4W41-SLF-08-1031

ATTACHMENT 5

SAMPLE RECORD SHEET

Consisting of 2 pages
Including cover page

7-11-06 C5853 BP-5

SAMPLE RECORD SHEET

Sample Number	Sample Suffix[1]	Empty Weight[2] (g)	Weight with Sample[3] (g)	Weight of Sample[4] (g)	Methanol Added (g)	Methanol Added (mL)	Weight of Methanol and Sample
B1[illegible]8	K	31.1	37.5	6.4	---	---	---
	L	30.7	38.1	7.4	---	---	---
	M	30.6	38.0	7.4	---	---	---
	N	30.8	35.3	4.5	---	---	---
↓	P	31.1	39.6	8.5	---	---	---
B1[illegible]9		30.9	30.9	0	4.2	5.0	34.3
B1[illegible]9	W	30.3	32.8	2.5	4.3	5.0	37.1
	X	30.6	35.8	5.2	7.6	10.0	43.4
↓	Y	30.1	33.7	3.6	5.7	7.2	39.4

[1]Sample suffix of L, K, M, N and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7C and -20C.
Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

[2]Empty weight is to include all labels, stickers, bags, and anything else that will be associated with the bottle when it is weighed with the sample.
[3]En sure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.
[4]Sample weight is the vial with sample minus the vial empty