RECEIVED JUNE 18, 2008

0080426

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FLUOR

Memorandum

M4W41-SLF-08-621

To:	H. Hampt	E6-35	Date:	June 17, 2008
From:	S. L. Fitzgerald, Manager WSCF Analytical Lab			
cc:	w/Attachments			
	T. F. Dale	S3-30	J. E. Trechter	S3-30
	A. J. Kopriva	S3-30	S. J. Trent	E6-35
	H. K. Meznarich	S3-30	File/LB	
	P. D. Mix	S3-30		

Subject: FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20080857 – SAF NUMBER F08-095

Reference:
(1) Groundwater Protection Program-Letter of Instruction, FH-EIS-2003-MEM-001, October 31, 2002

(2) HNF-SD-CD-QAPP-017, Rev. 8, Waste Sampling & Characterization Facility Quality Assurance Plan

This letter contains the following information for sample delivery group WSCF20080857:

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

SLF/grf

Attachments 5

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ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20080857
Data Deliverable Date: 12-jun-2008
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
F08-095	B1V4R6	W08GR01106	SOIL
	B1V4R8	W08GR01105	SOIL
	B1V4T4	W08GR01111	SOIL
	B1V4T6	W08GR01109	SOIL

M4W41-SLF-08-621

ATTACHMENT 2

NARRATIVE

Consisting of 4 pages
Including cover page

Introduction

Nine S&GRP samples were received at the WSCF Laboratory on April 29, 2008. Four of the nine samples were analyzed at the WSCF Laboratory. Summary of sample disposition is offered below:

- B1V4R6, B1V4R8, B1V4T4 and B1V4T6 – Samples were successfully analyzed at the WSCF Laboratory for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter;

- B1V4T0 and B1V4T2 – Due to rocky matrix of these samples, analyses were canceled.

- B1V4R7, B1V4T1 and B1V4T5 – Analyses of these Methanol Blank samples and their associated high concentration VOA samples were 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, copies of the sample record sheets are included as Attachment 5.

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

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report,* pages 13 through 15, for a complete listing of approved analytical methods.

Inorganic Comments

ICP-AES Metals – 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 GRP Letter of Instruction. See page 19 for QC details. Analytical Note(s):

- Iron – Sample results exceeded spiking levels by a factor of 4. Spike recoveries are not valid. Check standard was analyzed to ensure linearity, because sample results are greater than the calibration standard.

- Lithium – Post digestion spike of the Lithium LCS was performed. Sample results were E flagged.

All other QC controls are within the established limits.

ICP-MS Metals – 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 GRP Letter of Instruction. See pages 20 through 21 for QC details. Analytical Note(s):

- Selenium contamination detected in the Blank was evaluated and affected sample results were C flagged.
- Manganese – Matrix Spike and Matrix Spike Duplicate recoveries were outside established laboratory limits. Sample results were N flagged.

All other QC controls are within the established limits.

Organic Comments

All samples are corrected for moisture and reported on a dry weight basis.

Semi-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 GPP Letter of Instruction. See pages 31 through 34 for QC details.

All QC controls are within the established limits.

TPHD-WA – 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 30 for QC details.

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 35 through 37 for QC details. Analytical Note(s):

- VOA analysis of the Methanol Blanks (B1V4R7, B1V4T1 and B1V4T5) and associated high VOA concentration samples were not required.
- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1VB28, SDG# 20080850, SAF# F08-043).

All QC controls are within the established limits.

Radiochemistry Comments

Rad Chem – There are no hold times associated with WSCF's radiochemical methods. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 43 through 47 for QC details. Analytical Note(s):

- GEA – Duplicate QC was analyzed on sample# B1TFH1 (SDG# 20080847, SAF# F08-066).

- Strontium-89/90 and 85 (tracer) – Duplicate QC was analyzed on sample# B1TFF2 (SDG# 20080847, SAF# F08-066).

- Uranium-233/234 and 235: The RPD result for U-234 from the duplicate of sample B1V4R8 was below the regulatory limit. The report was approved since the RPD result does not apply to low level samples.

All QC controls are within the established limits.

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

Scot L. Fitzgerald
WSCF Analytical Laboratory Manager

Andrew Kopriva
WSCF Client Services

M4W41-SLF-08-621

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 40 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical: S. Fitzgerald 6/17/08

Client Services: Andrew Koprivа 6/17/08

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

This information is intended for the use of the addressee only. If the reader of this report is not the intended recipient or is not authorized by the recipient to receive the report, you are hereby notified that any dissemination, distribution or copying of this report is strictly prohibited. If you have received this report in error, please notify WSCF Laboratory immediately by telephone at (509) 373-7020 or (509) 531-8004. Information designation of this report is the responsibility of the customer.

Contract#: FH-EIS-2003-MEM-001
Report#: WSCF20080857
Report Date: 17-jun-2008
Report WGPP/ver. 5.2
Groundwater Remediation Program

w13qlog v4.2 17-jun-2008 07:20:40

Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20080857

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			41042	BLANK		NWTPH-D TPH Diesel Range (Wa)
			41042	LCS		NWTPH-D TPH Diesel Range (Wa)
			41042	SAMPLE	W08GR01105	NWTPH-D TPH Diesel Range (Wa)
			41042	SURR	W08GR01105	NWTPH-D TPH Diesel Range (Wa)
			41042	MS	W08GR01109	NWTPH-D TPH Diesel Range (Wa)
			41042	MSD	W08GR01109	NWTPH-D TPH Diesel Range (Wa)
			41042	SAMPLE	W08GR01109	NWTPH-D TPH Diesel Range (Wa)
			41042	SPK-RPD	W08GR01109	NWTPH-D TPH Diesel Range (Wa)
			41042	SURR	W08GR01109	NWTPH-D TPH Diesel Range (Wa)
			41043	BLANK		SW-846 8270C Semi-Vols
			41043	LCS		SW-846 8270C Semi-Vols
			41043	SAMPLE	W08GR01105	SW-846 8270C Semi-Vols
			41043	SURR	W08GR01105	SW-846 8270C Semi-Vols
			41043	MS	W08GR01109	SW-846 8270C Semi-Vols
			41043	MSD	W08GR01109	SW-846 8270C Semi-Vols
			41043	SAMPLE	W08GR01109	SW-846 8270C Semi-Vols
			41043	SPK-RPD	W08GR01109	SW-846 8270C Semi-Vols
			41043	SURR	W08GR01109	SW-846 8270C Semi-Vols
			41165	BLANK		VOA Ground Water Protection
			41165	LCS		VOA Ground Water Protection
			41165	MS	W08GR01098	VOA Ground Water Protection
			41165	MSD	W08GR01098	VOA Ground Water Protection
			41165	SPK-RPD	W08GR01098	VOA Ground Water Protection
			41165	SAMPLE	W08GR01106	VOA Ground Water Protection
			41165	SURR	W08GR01106	VOA Ground Water Protection
			41165	SAMPLE	W08GR01111	VOA Ground Water Protection
			41165	SURR	W08GR01111	VOA Ground Water Protection

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Department: Radiochemistry

W13q Worklist/Batch/QC Report for Group# WSCF20080857

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
36189	1	36606	41108	BLANK		Strontium 89/90
36189	2	36606	41108	LCS		Strontium 89/90
36189	3	36606	41108	DUP	W08GR01075	Strontium 89/90
36189	14	36606	41108	SAMPLE	W08GR01105	Strontium 89/90
36189	15	36606	41108	SURR	W08GR01105	Strontium 89/90
36189	16	36606	41108	SAMPLE	W08GR01109	Strontium 89/90
36189	17	36606	41108	SURR	W08GR01109	Strontium 89/90
36171	1	36588	41160	BLANK		Gamma Energy Analysis-grd H2O
36171	2	36588	41160	LCS		Gamma Energy Analysis-grd H2O
36171	3	36588	41160	DUP	W08GR01082	Gamma Energy Analysis-grd H2O
36171	6	36588	41160	SAMPLE	W08GR01105	Gamma Energy Analysis-grd H2O
36171	7	36588	41160	SAMPLE	W08GR01109	Gamma Energy Analysis-grd H2O
36651	1	37067	41409	BLANK		Neptunium by AEA
36651	2	37067	41409	LCS		Neptunium by AEA
36651	3	37067	41409	DUP	W08GR01105	Neptunium by AEA
36651	5	37067	41409	MS	W08GR01105	Neptunium by AEA
36651	6	37067	41409	MSD	W08GR01105	Neptunium by AEA
36651	4	37067	41409	SAMPLE	W08GR01105	Neptunium by AEA
36651	6	37067	41409	SPK-RPD	W08GR01105	Neptunium by AEA
36651	8	37067	41409	MS	W08GR01109	Neptunium by AEA
36651	7	37067	41409	SAMPLE	W08GR01109	Neptunium by AEA
36651	10	37067	41409	MS	W08GR01290	Neptunium by AEA
36657	1	37073	41449	BLANK		Uranium Isotopics by AEA
36657	2	37073	41449	LCS		Uranium Isotopics by AEA
36657	3	37073	41449	DUP	W08GR01105	Uranium Isotopics by AEA
36657	4	37073	41449	SAMPLE	W08GR01105	Uranium Isotopics by AEA
36657	5	37073	41449	SURR	W08GR01105	Uranium Isotopics by AEA
36657	6	37073	41449	SAMPLE	W08GR01109	Uranium Isotopics by AEA
36657	7	37073	41449	SURR	W08GR01109	Uranium Isotopics by AEA
36658	1	37074	41452	BLANK		Plutonium Isotopics by AEA
36658	2	37074	41452	LCS		Plutonium Isotopics by AEA
36658	3	37074	41452	DUP	W08GR01105	Plutonium Isotopics by AEA
36658	4	37074	41452	SAMPLE	W08GR01105	Plutonium Isotopics by AEA
36658	5	37074	41452	SURR	W08GR01105	Plutonium Isotopics by AEA
36658	6	37074	41452	SAMPLE	W08GR01109	Plutonium Isotopics by AEA
36658	7	37074	41452	SURR	W08GR01109	Plutonium Isotopics by AEA

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Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20080857

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
				SAMPLE	W08GR01105	Percent Solids
				SAMPLE	W08GR01109	Percent Solids
36231	1	36647	40983	BLANK		ICP-200.8 MS All possible meta
36231	2	36647	40983	LCS		ICP-200.8 MS All possible meta
36231	4	36647	40983	MS	W08GR01105	ICP-200.8 MS All possible meta
36231	5	36647	40983	MSD	W08GR01105	ICP-200.8 MS All possible meta
36231	3	36647	40983	SAMPLE	W08GR01105	ICP-200.8 MS All possible meta
36231	5	36647	40983	SPK-RPD	W08GR01105	ICP-200.8 MS All possible meta
36231	6	36647	40983	SAMPLE	W08GR01109	ICP-200.8 MS All possible meta
36543	1	36959	41341	BLANK		ICP Metals Analysis, Grd H20 P
36543	2	36959	41341	LCS		ICP Metals Analysis, Grd H20 P
36543	4	36959	41341	MS	W08GR01105	ICP Metals Analysis, Grd H20 P
36543	5	36959	41341	MSD	W08GR01105	ICP Metals Analysis, Grd H20 P
36543	3	36959	41341	SAMPLE	W08GR01105	ICP Metals Analysis, Grd H20 P
36543	5	36959	41341	SPK-RPD	W08GR01105	ICP Metals Analysis, Grd H20 P
36543	6	36959	41341	SAMPLE	W08GR01109	ICP Metals Analysis, Grd H20 P

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

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)
LA-523-493	NWTPH-Diesel and/or Gasoline	
	HEIS WTPH_DIESEL (HEIS)	Total Petroleum Hydrocarbons in Diesel
	WDOE TPHD	Total Petroleum Hydrocarbons in Diesel

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_GPC	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: F08-095
Sample # W08GR01105
Client ID: B1V4R8 GPP TRENT WSCF
Matrix: SOIL

Group #: WSCF20080857
Department: Inorganic
Sampled: 04/29/08
Received: 04/29/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**06/04/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		5.02e+03	mg/kg			90.56	0.82		06/05/08
Lithium	7439-93-2	LA-505-411	E	1.49	mg/kg			90.56	0.36		06/05/08
ICP-200.8 MS All possible meta Prep											**05/07/08**
ICP-200.8 MS All possible meta											
Manganese	7439-96-5	LA-505-412	N	442	mg/kg			1.00	0.0998		05/07/08
Chromium	7440-47-3	LA-505-412		7.16	mg/kg			1.00	0.499		05/07/08
Mercury	7439-97-6	LA-505-412	U	< 0.0499	mg/kg			1.00	0.0499		05/07/08
Arsenic	7440-38-2	LA-505-412		0.510	mg/kg			1.00	0.399		05/07/08
Selenium	7782-49-2	LA-505-412	U	< 0.299	mg/kg			1.00	0.299		05/07/08
Total solids											
Total solids	TS	LA-519-412		94.2	Percent			1.00	0.0		05/12/08

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

C - The Analyte was found in the Associated Blank.(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

E - Analyte is an estimate, has potentially larger errors(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-095
Sample # W08GR01109
Client ID: B1V4T6 GPP TRENT WSCF **Matrix:** SOIL

Group #: WSCF20080857
Department: Inorganic
Sampled: 04/29/08
Received: 04/29/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**06/04/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		1.29e+04	mg/kg			93.84	0.84		06/05/08
Lithium	7439-93-2	LA-505-411	E	5.36	mg/kg			93.84	0.38		06/05/08
ICP-200.8 MS All possible meta Prep											**05/07/08**
ICP-200.8 MS All possible meta											
Manganese	7439-96-5	LA-505-412	N	170	mg/kg			0.90	0.0900		05/07/08
Chromium	7440-47-3	LA-505-412		11.2	mg/kg			0.90	0.450		05/07/08
Mercury	7439-97-6	LA-505-412		0.0600	mg/kg			0.90	0.0450		05/07/08
Arsenic	7440-38-2	LA-505-412		1.30	mg/kg			0.90	0.360		05/07/08
Selenium	7782-49-2	LA-505-412	C	0.280	mg/kg			0.90	0.270		05/07/08
Total solids											
Total solids	TS	LA-519-412		97.1	Percent			1.00	0.0		05/12/08

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

C - The Analyte was found in the Associated Blank.(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

E - Analyte is an estimate, has potentially larger errors(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

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

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F08-095

Group #: WSCF20080857
Department: Inorganic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-MS: Selenium prep blank above MDL. "C" flag when result above the MDL Manganese shows no spike recovery. "N" flags. ORGANICS: All results are moisture corrected and reported on a dry weight basis. cgc ICP-AES: Post digestion spike of lithium in LCS. Iron sample result exceeds spiking level by a factor of 4 so spike recoveries are not valid. High standard used to ensure iron linearity because sample results are greater than the calibration standard. Lithium result is calculated using a correlation due to calcium interference. This applies to spike recoveries also. W08GR01105/U-234 duplicate is flagged for poor RPD but the sample activity is low level. RPD does not apply to low level samples. lmh

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

This report may not be reproduced, except in its entirety without the written approval of the WSCF Laboratory.

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080857
Matrix: SOLID
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 04/29/08
Receive Date:04/29/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR01105											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Iron	7439-89-6	1939	1048.108	% Recov	75.000	125.000		•		06/05/08
MS	Lithium	7439-93-2	107.51	115.976	% Recov	70.000	130.000				06/05/08
MSD	Iron	7439-89-6	1338	723.243	% Recov	75.000	125.000		•		06/05/08
MSD	Lithium	7439-93-2	106.51	115.395	% Recov	75.000	125.000				06/05/08
SPK-RPD	Iron	7439-89-6	723.243		RPD			36.680	20.000 •		06/05/08
SPK-RPD	Lithium	7439-93-2	115.395		RPD			0.502	20.000		06/05/08
BATCH QC											
BLANK	Iron	7439-89-6	<9e-3	n/a	ug/mL					U	06/05/08
BLANK	Lithium	7439-93-2	<4e-3	n/a	ug/mL					U	06/05/08
LCS	Iron	7439-89-6	14220	106.119	% Recov	47.000	152.000				06/05/08
LCS	Lithium	7439-93-2	106.8	107.014	% Recov	80.000	120.000				06/05/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080857
Matrix: SOLID
Test: ICP-200.8 MS All possible meta

Sample Date: 04/29/08
Receive Date:04/29/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR01105											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Arsenic	7440-38-2	185.89	92.945	% Recov	70.000	130.000				05/07/08
MS	Chromium	7440-47-3	192.04	96.020	% Recov	70.000	130.000				05/07/08
MS	Mercury	7439-97-6	2.03	101.500	% Recov	70.000	130.000				05/07/08
MS	Manganese	7439-96-5	-146	-73.000	% Recov	70.000	130.000			*	05/07/08
MS	Selenium	7782-49-2	187.4	93.700	% Recov	70.000	130.000				05/07/08
MSD	Arsenic	7440-38-2	191.09	95.545	% Recov	70.000	130.000				05/07/08
MSD	Chromium	7440-47-3	194.04	97.020	% Recov	70.000	130.000				05/07/08
MSD	Mercury	7439-97-6	2.07	103.500	% Recov	70.000	130.000				05/07/08
MSD	Manganese	7439-96-5	-161.1	-80.550	% Recov	70.000	130.000			*	05/07/08
MSD	Selenium	7782-49-2	191.1	95.550	% Recov	70.000	130.000				05/07/08
SPK-RPD	Arsenic	7440-38-2	95.545		RPD			2.759	20.000		05/07/08
SPK-RPD	Chromium	7440-47-3	97.020		RPD			1.036	20.000		05/07/08
SPK-RPD	Mercury	7439-97-6	103.500		RPD			1.951	20.000		05/07/08
SPK-RPD	Manganese	7439-96-5	-80.550		RPD			-9.834	20.000 *		05/07/08
SPK-RPD	Selenium	7782-49-2	95.550		RPD			1.955	20.000		05/07/08
BATCH QC											
BLANK	Arsenic	7440-38-2	<0.4	n/a	ug/L					U	05/07/08
BLANK	Chromium	7440-47-3	<0.5	n/a	ug/L					U	05/07/08
BLANK	Mercury	7439-97-6	<5e-2	n/a	ug/L					U	05/07/08
BLANK	Manganese	7439-96-5	<0.1	n/a	ug/L					U	05/07/08
BLANK	Selenium	7782-49-2	0.33	0.330	ug/L						05/07/08
LCS	Arsenic	7440-38-2	135.3	102.500	% Recov	75.000	134.000				05/07/08
LCS	Chromium	7440-47-3	74.25	101.852	% Recov	77.000	125.000				05/07/08
LCS	Mercury	7439-97-6	7.94	95.894	% Recov	71.000	132.000				05/07/08
LCS	Manganese	7439-96-5	473	104.415	% Recov	83.000	118.000				05/07/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Inorganic**

SDG Number: WSCF20080857
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
LCS	Selenium	7782-49-2	175.7	109.130	% Recov	52.000	157.000				05/07/08

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-095
Sample # W08GR01105
Client ID: B1V4R8 GPP WSCF TRENT **Matrix:** SOIL

Group #: WSCF20080857
Department: Organic
Sampled: 04/29/08
Received: 04/29/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
NWTPH-D TPH Diesel Range (Wa) Prep											**05/12/08**
NWTPH-D TPH Diesel Range (Wa)											
Total Pet. Hydrocarbons Diesel	TPHDIESEL	LA-523-493	U	< 3.20e+03	ug/kg			1.00	3.2e+03		05/13/08
Kerosene	TPHKEROSENE	LA-523-493	U	< 3.20e+03	ug/kg			1.00	3.2e+03		05/13/08
SW-846 8270C Semi-Vols Prep											**05/12/08**
SW-846 8270C Semi-Vols											
4-Nitrophenol	100-02-7	LA-523-456	U	< 210	ug/kg			1.00	2.1e+02		05/13/08
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	< 250	ug/kg			1.00	2.5e+02		05/13/08
Phenol	108-95-2	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		05/13/08
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		05/13/08
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		05/13/08
Pyrene	129-00-0	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		05/13/08
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		05/13/08
N-Nitrosodi-n-dipropylamine	621-64-7	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		05/13/08
Acenaphthene	83-32-9	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		05/13/08
Pentachlorophenol	87-86-5	LA-523-456	U	< 210	ug/kg			1.00	2.1e+02		05/13/08
2-Chlorophenol	95-57-8	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		05/13/08
2-Methylphenol (cresol, o-)	95-48-7	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		05/13/08
3 & 4 Methylphenol Total	65794-96-9	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		05/13/08

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-095
Sample # W08GR01106
Client ID: B1V4R6 GPP TRENT WSCF
Matrix: SOIL

Group #: WSCF20080857
Department: Organic
Sampled: 04/29/08
Received: 04/29/08

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	< 0.810	ug/kg			1.00	0.81		05/02/08
Trichloroethene	79-01-6	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
Benzene	71-43-2	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
Toluene	108-88-3	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
Chlorobenzene	108-90-7	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
Ethylbenzene	100-41-4	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
Styrene	100-42-5	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
cis-1,3-Dichloropropene	10061-01-5	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
Dibromochloromethane	124-48-1	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
Xylenes (total)	1330-20-7	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
1,2-Dichloroethene(Total)	540-59-0	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
Carbon tetrachloride	56-23-5	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
2-Hexanone	591-78-6	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
Acetone	67-64-1	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
Chloroform	67-66-3	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
Bromomethane	74-83-9	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
Chloromethane	74-87-3	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
Chloroethane	75-00-3	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08

MDL = Minimum Detection Limit
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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-095
Sample # W08GR01106
Client ID: B1V4R6 GPP TRENT WSCF
Matrix: SOIL

Group #: WSCF20080857
Department: Organic
Sampled: 04/29/08
Received: 04/29/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Vinyl chloride	75-01-4	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
Methylenechloride	75-09-2	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
Carbon disulfide	75-15-0	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
Bromoform	75-25-2	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
Bromodichloromethane	75-27-4	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
1,2-Dichloropropane	78-87-5	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
2-Butanone	78-93-3	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08
n-Butylbenzene	104-51-8	LA-523-455	U	< 0.810	ug/kg			1.00	0.81		05/02/08

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-095
Sample # W08GR01109
Client ID: B1V4T6 GPP WSCF TRENT **Matrix:** SOIL

Group #: WSCF20080857
Department: Organic
Sampled: 04/29/08
Received: 04/29/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
NWTPH-D TPH Diesel Range (Wa) Prep											**05/12/08**
NWTPH-D TPH Diesel Range (Wa)											
Total Pet. Hydrocarbons Diesel	TPHDIESEL	LA-523-493	U	< 3.10e+03	ug/kg			1.00	3.1e+03		05/13/08
Kerosene	TPHKEROSENE	LA-523-493	U	< 3.10e+03	ug/kg			1.00	3.1e+03		05/13/08
SW-846 8270C Semi-Vols Prep											**05/12/08**
SW-846 8270C Semi-Vols											
4-Nitrophenol	100-02-7	LA-523-456	U	< 210	ug/kg			1.00	2.1e+02		05/13/08
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	< 250	ug/kg			1.00	2.5e+02		05/13/08
Phenol	108-95-2	LA-523-456	U	< 140	ug/kg			1.00	1.4e+02		05/13/08
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	< 140	ug/kg			1.00	1.4e+02		05/13/08
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	< 140	ug/kg			1.00	1.4e+02		05/13/08
Pyrene	129-00-0	LA-523-456	U	< 140	ug/kg			1.00	1.4e+02		05/13/08
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	< 140	ug/kg			1.00	1.4e+02		05/13/08
N-Nitrosodi-n-dipropylamine	621-64-7	LA-523-456	U	< 140	ug/kg			1.00	1.4e+02		05/13/08
Acenaphthene	83-32-9	LA-523-456	U	< 140	ug/kg			1.00	1.4e+02		05/13/08
Pentachlorophenol	87-86-5	LA-523-456	U	< 210	ug/kg			1.00	2.1e+02		05/13/08
2-Chlorophenol	95-57-8	LA-523-456	U	< 140	ug/kg			1.00	1.4e+02		05/13/08
2-Methylphenol (cresol, o-)	95-48-7	LA-523-456	U	< 140	ug/kg			1.00	1.4e+02		05/13/08
3 & 4 Methylphenol Total	65794-96-9	LA-523-456	U	< 140	ug/kg			1.00	1.4e+02		05/13/08

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-095
Sample # W08GR01111
Client ID: B1V4T4 GPP WSCF TRENT **Matrix:** SOIL

Group #: WSCF20080857
Department: Organic
Sampled: 04/29/08
Received: 04/29/08

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/kg			1.00	1.0		05/02/08
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
Styrene	100-42-5	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
cis-1,3-Dichloropropene	10061-01-5	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
Dibromochloromethane	124-48-1	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
1,2-Dichloroethene(Total)	540-59-0	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
2-Hexanone	591-78-6	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
Chloroform	67-66-3	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
Bromomethane	74-83-9	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
Chloromethane	74-87-3	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
Chloroethane	75-00-3	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08

MDL = Minimum Detection Limit
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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-095
Sample # W08GR01111
Client ID: B1V4T4 GPP TRENT WSCF
Matrix: SOIL

Group #: WSCF20080857
Department: Organic
Sampled: 04/29/08
Received: 04/29/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
Bromoform	75-25-2	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
Bromodichloromethane	75-27-4	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
1,2-Dichloropropane	78-87-5	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08
n-Butylbenzene	104-51-8	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		05/02/08

MDL=Minimum Detection Limit
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WSCF
TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent
Project Number F08-095 :F08-095

Group #: WSCF20080857
Department: Organic

Sample #	Client ID			Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W08GR01105	B1V4R8	GPP	TRENT	SW-846 8270C Semi-Vols	SMP 17.856 Unknown PAH	Unknown	17.85695	J	8.8e+02	ug/kg
W08GR01105	B1V4R8	GPP	TRENT	SW-846 8270C Semi-Vols	SMP 19.593 Unknown	Unknown	19.59386	J	3.6e+03	ug/kg
W08GR01105	B1V4R8	GPP	TRENT	SW-846 8270C Semi-Vols	SMP 19.786 Unknown Hydrocarbon	Unknown	19.78626	J	2.9e+03	ug/kg
W08GR01105	B1V4R8	GPP	TRENT	SW-846 8270C Semi-Vols	SMP 19.989 Unknown Organic Acid	Unknown	19.98935	J	8.9e+03	ug/kg
W08GR01105	B1V4R8	GPP	TRENT	SW-846 8270C Semi-Vols	SMP 20.363 Unknown	Unknown	20.36345	J	2.7e+03	ug/kg
W08GR01109	B1V4T6	GPP	TRENT	SW-846 8270C Semi-Vols	SMP 13.496 Di-n-butylphthalate	84-74-2	13.49601		6.4e+02	ug/kg

RQ=Result Qualifier J - Analyte < lowest calibration but > = MDL.(org)

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WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F08-095

Group #: WSCF20080857
Department: Organic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-MS: Selenium prep blank above MDL. "C" flag when result above the MDL Manganese shows no spike recovery. "N" flags. ORGANICS: All results are moisture corrected and reported on a dry weight basis. cgc ICP-AES: Post digestion spike of lithium in LCS. Iron sample result exceeds spiking level by a factor of 4 so spike recoveries are not valid. High standard used to ensure iron linearity because sample results are greater than the calibration standard. Lithium result is calculated using a correlation due to calcium interference. This applies to spike recoveries also. W08GR01105/U-234 duplicate is flagged for poor RPD but the sample activity is low level. RPD does not apply to low level samples. 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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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080857
Matrix: SOLID
Test: NWTPH-D TPH Diesel Range (Wa)

Sample Date: 04/29/08
Receive Date:04/29/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR01105											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	ortho-Terphenyl Surr	84-15-1	15783	74.500	% Recov	70.000	130.000				05/13/08
Lab ID: W08GR01109											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	ortho-Terphenyl Surr	84-15-1	17393	84.700	% Recov	70.000	130.000				05/13/08
MS	Total Pet. Hydrocarbons Diesel	TPHDIESEL	91060	88.700	% Recov	75.000	125.000				05/13/08
MSD	ortho-Terphenyl Surr	84-15-1	18724	92.000	% Recov	70.000	130.000				05/13/08
MSD	Total Pet. Hydrocarbons Diesel	TPHDIESEL	96925	95.200	% Recov	75.000	125.000				05/13/08
SPK-RPD	ortho-Terphenyl Surr	84-15-1	92.000		RPD			8.263	20.000		05/13/08
SPK-RPD	Total Pet. Hydrocarbons Diesel	TPHDIESEL	95.200		RPD			7.069	20.000		05/13/08
SURR	ortho-Terphenyl Surr	84-15-1	16391	80.000	% Recov	70.000	130.000				05/13/08
BATCH QC											
BLANK	Kerosene	TPHKEROSENE	< 3000	n/a	ug/Kg					U	05/13/08
BLANK	ortho-Terphenyl Surr	84-15-1	15698	78.500	% Recov	70.000	130.000				05/13/08
BLANK	Total Pet. Hydrocarbons Diesel	TPHDIESEL	< 3000	n/a	ug/Kg					U	05/13/08
LCS	ortho-Terphenyl Surr	84-15-1	15044	75.200	% Recov	70.000	130.000				05/13/08
LCS	Total Pet. Hydrocarbons Diesel	TPHDIESEL	103720	104.000	% Recov	80.000	120.000				05/13/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080857
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 04/29/08
Receive Date:04/29/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR01105											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	2-Fluorophenol(Surr)	367-12-4	3563.4	84.400	% Recov	72.000	120.000				05/13/08
SURR	2-Fluorobiphenyl(Surr)	321-60-8	3585.1	84.900	% Recov	66.000	122.000				05/13/08
SURR	Nitrobenzene-d5(Surr)	4165-60-0	3486.4	82.600	% Recov	63.000	125.000				05/13/08
SURR	Phenol-d5(Surr)	4165-62-2	3591.5	85.100	% Recov	66.000	124.000				05/13/08
SURR	2,4,6-Tribromophenol(Surr)	118-79-6	3404.7	80.600	% Recov	49.000	120.000				05/13/08
SURR	Terphenyl-d14(Surr)	98904-43-9	4275.7	101.000	% Recov	58.000	128.000				05/13/08
Lab ID: W08GR01109											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	1,2,4-Trichlorobenzene	120-82-1	3170.2	77.800	% Recov	75.000	121.000				05/13/08
MS	1,4-Dichlorobenzene	106-46-7	3071.0	75.300	% Recov	68.000	121.000				05/13/08
MS	2,4-Dinitrotoluene	121-14-2	3109.1	76.300	% Recov	66.000	113.000				05/13/08
MS	2-Fluorophenol(Surr)	367-12-4	3068.9	75.300	% Recov	72.000	120.000				05/13/08
MS	Acenaphthene	83-32-9	3287.6	80.600	% Recov	69.000	125.000				05/13/08
MS	4-Chloro-3-methylphenol	59-50-7	4781.0	78.200	% Recov	68.000	116.000				05/13/08
MS	2-Chlorophenol	95-57-8	4728.9	77.300	% Recov	65.000	124.000				05/13/08
MS	N-Nitrosodi-n-dipropylamine	621-64-7	3273.4	80.300	% Recov	69.000	127.000				05/13/08
MS	2-Fluorobiphenyl(Surr)	321-60-8	3120.0	76.500	% Recov	66.000	122.000				05/13/08
MS	Phenol	108-95-2	4910.7	80.300	% Recov	71.000	122.000				05/13/08
MS	Nitrobenzene-d5(Surr)	4165-60-0	3034.4	74.400	% Recov	63.000	125.000				05/13/08
MS	4-Nitrophenol	100-02-7	4678.7	76.500	% Recov	55.000	113.000				05/13/08
MS	Pentachlorophenol	87-86-5	3987.2	65.200	% Recov	50.000	113.000				05/13/08
MS	Phenol-d5(Surr)	4165-62-2	3067.9	75.300	% Recov	66.000	124.000				05/13/08
MS	Pyrene	129-00-0	3193.2	78.300	% Recov	67.000	125.000				05/13/08
MS	2,4,6-Tribromophenol(Surr)	118-79-6	2948.9	72.300	% Recov	49.000	120.000				05/13/08
MS	Terphenyl-d14(Surr)	98904-43-9	3250.1	79.700	% Recov	58.000	128.000				05/13/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080857
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 04/29/08
Receive Date:04/29/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	1,2,4-Trichlorobenzene	120-82-1	3960.4	87.500	% Recov	75.000	121.000				05/13/08
MSD	1,4-Dichlorobenzene	106-46-7	3991.2	88.200	% Recov	68.000	121.000				05/13/08
MSD	2,4-Dinitrotoluene	121-14-2	3929.5	86.900	% Recov	66.000	113.000				05/13/08
MSD	2-Fluorophenol(Surr)	367-12-4	3813.2	84.300	% Recov	72.000	120.000				05/13/08
MSD	Acenaphthene	83-32-9	4112.0	90.900	% Recov	69.000	125.000				05/13/08
MSD	4-Chloro-3-methylphenol	59-50-7	6120.7	90.200	% Recov	68.000	116.000				05/13/08
MSD	2-Chlorophenol	95-57-8	5969.4	88.000	% Recov	65.000	124.000				05/13/08
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	4194.8	92.700	% Recov	69.000	127.000				05/13/08
MSD	2-Fluorobiphenyl(Surr)	321-60-8	3893.6	86.100	% Recov	66.000	122.000				05/13/08
MSD	Phenol	108-95-2	6205.5	91.400	% Recov	71.000	122.000				05/13/08
MSD	Nitrobenzene-d5(Surr)	4165-60-0	3902.8	86.300	% Recov	63.000	125.000				05/13/08
MSD	4-Nitrophenol	100-02-7	4665.3	68.700	% Recov	55.000	113.000				05/13/08
MSD	Pentachlorophenol	87-86-5	4659.3	68.700	% Recov	50.000	113.000				05/13/08
MSD	Phenol-d5(Surr)	4165-62-2	3997.0	88.300	% Recov	66.000	124.000				05/13/08
MSD	Pyrene	129-00-0	4168.6	92.100	% Recov	67.000	125.000				05/13/08
MSD	2,4,6-Tribromophenol(Surr)	118-79-6	3630.8	80.300	% Recov	49.000	120.000				05/13/08
MSD	Terphenyl-d14(Surr)	98904-43-9	4211.2	93.100	% Recov	58.000	128.000				05/13/08
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	87.500		RPD			11.736	20.000		05/13/08
SPK-RPD	1,4-Dichlorobenzene	106-46-7	88.200		RPD			15.780	20.000		05/13/08
SPK-RPD	2,4-Dinitrotoluene	121-14-2	86.900		RPD			12.990	20.000		05/13/08
SPK-RPD	2-Fluorophenol(Surr)	367-12-4	84.300		RPD			11.278	20.000		05/13/08
SPK-RPD	Acenaphthene	83-32-9	90.900		RPD			12.012	20.000		05/13/08
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	90.200		RPD			14.252	20.000		05/13/08
SPK-RPD	2-Chlorophenol	95-57-8	88.000		RPD			12.946	20.000		05/13/08
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	92.700		RPD			14.335	20.000		05/13/08
SPK-RPD	2-Fluorobiphenyl(Surr)	321-60-8	86.100		RPD			11.808	20.000		05/13/08
SPK-RPD	Phenol	108-95-2	91.400		RPD			12.930	20.000		05/13/08
SPK-RPD	Nitrobenzene-d5(Surr)	4165-60-0	86.300		RPD			14.810	20.000		05/13/08
SPK-RPD	4-Nitrophenol	100-02-7	68.700		RPD			10.744	20.000		05/13/08
SPK-RPD	Pentachlorophenol	87-86-5	68.700		RPD			5.228	20.000		05/13/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080857
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 04/29/08
Receive Date:04/29/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	Phenol-d5(Surr)	4165-62-2	88.300		RPD			15.892	20.000		05/13/08
SPK-RPD	Pyrene	129-00-0	92.100		RPD			16.197	20.000		05/13/08
SPK-RPD	2,4,6-Tribromophenol(Surr)	118-79-6	80.300		RPD			10.485	20.000		05/13/08
SPK-RPD	Terphenyl-d14(Surr)	98904-43-9	93.100		RPD			15.509	20.000		05/13/08
SURR	2-Fluorophenol(Surr)	367-12-4	4075.0	99.000	% Recov	72.000	120.000				05/13/08
SURR	2-Fluorobiphenyl(Surr)	321-60-8	4134.6	100.000	% Recov	66.000	122.000				05/13/08
SURR	Nitrobenzene-d5(Surr)	4165-60-0	3828.8	93.000	% Recov	63.000	125.000				05/13/08
SURR	Phenol-d5(Surr)	4165-62-2	4126.5	100.000	% Recov	66.000	124.000				05/13/08
SURR	2,4,6-Tribromophenol(Surr)	118-79-6	3877.9	94.200	% Recov	49.000	120.000				05/13/08
SURR	Terphenyl-d14(Surr)	98904-43-9	4502.1	109.000	% Recov	58.000	128.000				05/13/08

BATCH QC

BLANK	1,2,4-Trichlorobenzene	120-82-1	< 140	n/a	ug/Kg					U	05/13/08
BLANK	1,4-Dichlorobenzene	106-46-7	< 240	n/a	ug/Kg					U	05/13/08
BLANK	2,4-Dinitrotoluene	121-14-2	< 140	n/a	ug/Kg					U	05/13/08
BLANK	2-Fluorophenol(Surr)	367-12-4	3164.7	79.100	% Recov	72.000	120.000				05/13/08
BLANK	2-Methylphenol (cresol, o-)	95-48-7	< 140	n/a	ug/Kg					U	05/13/08
BLANK	3 & 4 Methylphenol Total	65794-96-9	< 140	n/a	ug/Kg					U	05/13/08
BLANK	Acenaphthene	83-32-9	< 140	n/a	ug/Kg					U	05/13/08
BLANK	4-Chloro-3-methylphenol	59-50-7	< 140	n/a	ug/Kg					U	05/13/08
BLANK	2-Chlorophenol	95-57-8	< 140	n/a	ug/Kg					U	05/13/08
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 140	n/a	ug/Kg					U	05/13/08
BLANK	2-Fluorobiphenyl(Surr)	321-60-8	3319.8	83.000	% Recov	66.000	122.000				05/13/08
BLANK	Phenol	108-95-2	< 140	n/a	ug/Kg					U	05/13/08
BLANK	Nitrobenzene-d5(Surr)	4165-60-0	3274.9	81.900	% Recov	63.000	125.000				05/13/08
BLANK	4-Nitrophenol	100-02-7	< 200	n/a	ug/Kg					U	05/13/08
BLANK	Pentachlorophenol	87-86-5	< 200	n/a	ug/Kg					U	05/13/08
BLANK	Phenol-d5(Surr)	4165-62-2	3221.8	80.500	% Recov	66.000	124.000				05/13/08
BLANK	Pyrene	129-00-0	< 140	n/a	ug/Kg					U	05/13/08
BLANK	2,4,6-Tribromophenol(Surr)	118-79-6	2823.4	70.600	% Recov	49.000	120.000				05/13/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080857
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	Terphenyl-d14(Surr)	98904-43-9	3924.6	98.100	% Recov	58.000	128.000				05/13/08
LCS	1,2,4-Trichlorobenzene	120-82-1	3204.4	80.100	% Recov	76.000	118.000				05/13/08
LCS	1,4-Dichlorobenzene	106-46-7	3244.6	81.100	% Recov	68.000	121.000				05/13/08
LCS	2,4-Dinitrotoluene	121-14-2	3150.7	78.800	% Recov	68.000	112.000				05/13/08
LCS	2-Fluorophenol(Surr)	367-12-4	2964.8	74.100	% Recov	50.000	110.000				05/13/08
LCS	Acenaphthene	83-32-9	3243.7	81.100	% Recov	75.000	121.000				05/13/08
LCS	4-Chloro-3-methylphenol	59-50-7	4671.4	77.900	% Recov	68.000	117.000				05/13/08
LCS	2-Chlorophenol	95-57-8	5075.8	84.597	% Recov	84.000	114.000				05/13/08
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	3319.2	83.000	% Recov	76.000	119.000				05/13/08
LCS	2-Fluorobiphenyl(Surr)	321-60-8	3002.6	75.100	% Recov	58.000	109.000				05/13/08
LCS	Phenol	108-95-2	4848.7	80.812	% Recov	80.000	113.000				05/13/08
LCS	Nitrobenzene-d5(Surr)	4165-60-0	3058.5	76.500	% Recov	60.000	118.000				05/13/08
LCS	4-Nitrophenol	100-02-7	3762.9	62.700	% Recov	42.000	123.000				05/13/08
LCS	Pentachlorophenol	87-86-5	4004.0	66.700	% Recov	55.000	120.000				05/13/08
LCS	Phenol-d5(Surr)	4165-62-2	3088.3	77.200	% Recov	59.000	116.000				05/13/08
LCS	Pyrene	129-00-0	3717.4	92.900	% Recov	67.000	122.000				05/13/08
LCS	2,4,6-Tribromophenol(Surr)	118-79-6	2856.9	71.400	% Recov	60.000	120.000				05/13/08
LCS	Terphenyl-d14(Surr)	98904-43-9	3683.2	92.100	% Recov	60.000	120.000				05/13/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080857
Matrix: SOLID
Test: VOA Ground Water Protection

Sample Date: 04/21/08
Receive Date:04/28/08

Lab ID: W08GR01098
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	24.900	95.600	% Recov	63.000	117.000				05/02/08
MS	Benzene	71-43-2	26.320	101.000	% Recov	75.000	129.000				05/02/08
MS	4-Bromofluorobenzene(Surr)	460-00-4	52.690	101.000	% Recov	75.000	125.000				05/02/08
MS	Chlorobenzene	108-90-7	26.740	103.000	% Recov	79.000	119.000				05/02/08
MS	1,2-Dichloroethane-d4(Surr)	17060-07-0	56.690	109.000	% Recov	75.000	125.000				05/02/08
MS	Toluene-d8(Surr)	2037-26-5	54.270	104.000	% Recov	75.000	125.000				05/02/08
MS	Toluene	108-88-3	26.260	101.000	% Recov	76.000	120.000				05/02/08
MS	Trichloroethene	79-01-6	21.190	81.400	% Recov	73.000	123.000				05/02/08
MSD	1,1-Dichloroethene	75-35-4	21.520	86.100	% Recov	63.000	117.000				05/02/08
MSD	Benzene	71-43-2	26.110	104.000	% Recov	75.000	129.000				05/02/08
MSD	4-Bromofluorobenzene(Surr)	460-00-4	50.130	100.000	% Recov	75.000	125.000				05/02/08
MSD	Chlorobenzene	108-90-7	26.760	107.000	% Recov	79.000	119.000				05/02/08
MSD	1,2-Dichloroethane-d4(Surr)	17060-07-0	53.650	107.000	% Recov	75.000	125.000				05/02/08
MSD	Toluene-d8(Surr)	2037-26-5	52.140	104.000	% Recov	75.000	125.000				05/02/08
MSD	Toluene	108-88-3	26.880	108.000	% Recov	76.000	120.000				05/02/08
MSD	Trichloroethene	79-01-6	20.390	81.600	% Recov	73.000	123.000				05/02/08
SPK-RPD	1,1-Dichloroethene	75-35-4	86.100		RPD			10.457	20.000		05/02/08
SPK-RPD	Benzene	71-43-2	104.000		RPD			2.927	20.000		05/02/08
SPK-RPD	4-Bromofluorobenzene(Surr)	460-00-4	100.000		RPD			0.995	20.000		05/02/08
SPK-RPD	Chlorobenzene	108-90-7	107.000		RPD			3.810	20.000		05/02/08
SPK-RPD	1,2-Dichloroethane-d4(Surr)	17060-07-0	107.000		RPD			1.852	20.000		05/02/08
SPK-RPD	Toluene-d8(Surr)	2037-26-5	104.000		RPD			0.000	20.000		05/02/08
SPK-RPD	Toluene	108-88-3	108.000		RPD			6.699	20.000		05/02/08
SPK-RPD	Trichloroethene	79-01-6	81.600		RPD			0.245	20.000		05/02/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080857
Matrix: SOLID
Test: VOA Ground Water Protection

Sample Date: 04/29/08
Receive Date:04/29/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR01106											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	41.990	104.000	% Recov	75.000	125.000				05/02/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	45.570	113.000	% Recov	75.000	125.000				05/02/08
SURR	Toluene-d8(Surr)	2037-26-5	42.400	105.000	% Recov	80.000	126.000				05/02/08
Lab ID: W08GR01111											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	51.220	102.000	% Recov	75.000	125.000				05/02/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	55.530	111.000	% Recov	75.000	125.000				05/02/08
SURR	Toluene-d8(Surr)	2037-26-5	54.410	109.000	% Recov	80.000	126.000				05/02/08
BATCH QC											
BLANK	1,1-Dichloroethane	75-34-3	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	1,1,1-Trichloroethane	71-55-6	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	1,1,2-Trichloroethane	79-00-5	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	1,1-Dichloroethene	75-35-4	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	1,2-Dichloroethane	107-06-2	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	1,2-Dichloroethene(Total)	540-59-0	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	2-Hexanone	591-78-6	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	4-Methyl-2-Pentanone	108-10-1	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	Acetone	67-64-1	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	Bromodichloromethane	75-27-4	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	4-Bromofluorobenzene(Surr)	460-00-4	51.040	102.000	% Recov	75.000	125.000				05/02/08
BLANK	Bromoform	75-25-2	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	n-Butylbenzene	104-51-8	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	Carbon disulfide	75-15-0	< 1.0	n/a	ug/Kg					U	05/02/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080857
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	Carbon tetrachloride	56-23-5	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	Dibromochloromethane	124-48-1	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	Chloroform	67-66-3	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	cis-1,3-Dichloropropene	10061-01-5	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	Chloroethane	75-00-3	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	1,2-Dichloroethane-d4(Surr)	17060-07-0	51.510	103.000	% Recov	75.000	125.000				05/02/08
BLANK	1,2-Dichloropropane	78-87-5	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	Ethylbenzene	100-41-4	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	Bromomethane	74-83-9	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	Chloromethane	74-87-3	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	2-Butanone	78-93-3	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	Methylenechloride	75-09-2	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	Tetrachloroethene	127-18-4	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	Styrene	100-42-5	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	Xylenes (total)	1330-20-7	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	Toluene-d8(Surr)	2037-26-5	50.940	102.000	% Recov	80.000	126.000				05/02/08
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	trans-1,3-Dichloropropene	10061-02-6	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	Trichloroethene	79-01-6	< 1.0	n/a	ug/Kg					U	05/02/08
BLANK	Vinyl chloride	75-01-4	< 1.0	n/a	ug/Kg					U	05/02/08
LCS	1,1-Dichloroethene	75-35-4	23.710	94.800	% Recov	75.000	125.000				05/02/08
LCS	Benzene	71-43-2	24.540	98.200	% Recov	75.000	125.000				05/02/08
LCS	4-Bromofluorobenzene(Surr)	460-00-4	51.260	103.000	% Recov	75.000	125.000				05/02/08
LCS	Chlorobenzene	108-90-7	25.660	103.000	% Recov	75.000	125.000				05/02/08
LCS	1,2-Dichloroethane-d4(Surr)	17060-07-0	52.780	106.000	% Recov	75.000	125.000				05/02/08
LCS	Toluene-d8(Surr)	2037-26-5	51.970	104.000	% Recov	80.000	126.000				05/02/08
LCS	Toluene	108-88-3	24.960	99.800	% Recov	75.000	125.000				05/02/08
LCS	Trichloroethene	79-01-6	20.660	82.600	% Recov	75.000	125.000				05/02/08

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-095
Sample # W08GR01105
Client ID: B1V4R8 GPP TRENT WSCF
Matrix: SOIL

Group #: WSCF20080857
Department: Radiochemistry
Sampled: 04/29/08
Received: 04/29/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Gamma Energy Analysis-grd H2O											
Cesium-137	10045-97-3	LA-508-481	U	-4.32e-03	pCi/g	+-5.04e-03	pCi/g	1.00	8.1e-03		05/07/08
Neptunium by AEA											
Neptunium-237	13994-20-2	LA-508-471	U	4.20e-03	pCi/g	+-0.0420	pCi/g	1.00	0.046		06/11/08
Plutonium Isotopics by AEA											
Plutonium-238	13981-16-3	LA-508-471	U	-0.0160	pCi/g	+-0.0168	pCi/g	1.00	0.038		06/12/08
Pu-239/240 by AEA	PU-239/240	LA-508-471	U	3.60e-03	pCi/g	+-7.27e-03	pCi/g	1.00	0.013		06/12/08
Pu-242 tracer by AEA	PU242	LA-508-471		5.90	pCi/g			1.00	0.017		06/12/08
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415	U	0.420	pCi/g	+-0.811	pCi/g	1.00	0.43		05/06/08
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		77.7	Percent			1.00	0.0		05/06/08
Uranium Isotopics by AEA											
Uranium-233/234	U-233/234	LA-508-471		0.0770	pCi/g	+-0.0331	pCi/g	1.00	0.021		06/12/08
Uranium-235	15117-96-1	LA-508-471		0.0190	pCi/g	+-0.0135	pCi/g	1.00	5.7e-03		06/12/08
Uranium-238	U-238	LA-508-471		0.100	pCi/g	+-0.0380	pCi/g	1.00	0.018		06/12/08
U-232 tracer by AEA	U232	LA-508-471		3.90	pCi/g			1.00	0.018		06/12/08

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

C - The Analyte was found in the Associated Blank.(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

E - Analyte is an estimate, has potentially larger errors(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-095
Sample # W08GR01109
Client ID: B1V4T6 GPP TRENT WSCF
Matrix: SOIL

Group #: WSCF20080857
Department: Radiochemistry
Sampled: 04/29/08
Received: 04/29/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Gamma Energy Analysis-grd H2O											
Cesium-137	10045-97-3	LA-508-481	U	-5.54e-03	pCi/g	+-5.54e-03	pCi/g	1.00	9.1e-03		05/07/08
Neptunium by AEA											
Neptunium-237	13994-20-2	LA-508-471	U	7.90e-03	pCi/g	+-0.0158	pCi/g	1.00	0.029		06/11/08
Plutonium Isotopics by AEA											
Plutonium-238	13981-16-3	LA-508-471	U	6.00e-03	pCi/g	+-0.0185	pCi/g	1.00	0.033		06/12/08
Pu-239/240 by AEA	PU-239/240	LA-508-471	U	1.50e-03	pCi/g	+-1.50e-03	pCi/g	1.00	0.011		06/12/08
Pu-242 tracer by AEA	PU242	LA-508-471		5.40	pCi/g			1.00	4.0e-03		06/12/08
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415	U	-0.0550	pCi/g	+-0.550	pCi/g	1.00	0.38		05/06/08
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		79.4	Percent			1.00	0.0		05/06/08
Uranium Isotopics by AEA											
Uranium-233/234	U-233/234	LA-508-471		0.0880	pCi/g	+-0.0352	pCi/g	1.00	0.019		06/12/08
Uranium-235	15117-96-1	LA-508-471		0.0120	pCi/g	+-0.0103	pCi/g	1.00	5.3e-03		06/12/08
Uranium-238	U-238	LA-508-471		0.0720	pCi/g	+-0.0295	pCi/g	1.00	0.013		06/12/08
U-232 tracer by AEA	U232	LA-508-471		3.60	pCi/g			1.00	0.025		06/12/08

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

C - The Analyte was found in the Associated Blank.(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

E - Analyte is an estimate, has potentially larger errors(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

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

WSCF
TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent
Project Number F08-095 :F08-095

Group #: WSCF20080857
Department: Radiochemistry

Sample #	Client ID			Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	AC-228				0.34	pCi/g
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	AC-228 Count Error				26	%
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	BI-212				0.31	pCi/g
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	BI-212 Count Error				28	%
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	BI-214				0.32	pCi/g
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	BI-214 Count Error				15	%
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	CS-134				0.019	pCi/g
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	CS-134 Count Error				43	%
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	K-40				7.6	pCi/g
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	K-40 Count Error				14	%
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	PB-212				0.40	pCi/g
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	PB-212 Count Error				11	%
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	PB-214				0.57	pCi/g
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	PB-214 Count Error				24	%
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	RA-226				0.24	pCi/g
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	RA-226 Count Error				18	%
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	RA-228				0.32	pCi/g
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	RA-228 Count Error				20	%
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	TH-234				0.60	pCi/g
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	TH-234 Count Error				41	%
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	TL-208				0.12	pCi/g
W08GR01105	B1V4R8	GPP	TRENT	Gamma Energy Analysis-grd H2O	TL-208 Count Error				17	%
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	AC-228				0.54	pCi/g
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	AC-228 Count Error				19	%
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	BI-212				0.40	pCi/g

RQ=Result Qualifier J - Analyte < lowest calibration but > = MDL.(org)

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WSCF
TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent
Project Number F08-095 :F08-095

Group #: WSCF20080857
Department: Radiochemistry

Sample #	Client ID			Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	BI-212 Count Error				22	%
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	BI-214				0.46	pCi/g
W08GR01109	81V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	BI-214 Count Error				14	%
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	CS-134				0.027	pCi/g
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	CS-134 Count Error				35	%
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	K-40				14	pCi/g
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	K-40 Count Error				13	%
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	PB-212				0.60	pCi/g
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	PB-212 Count Error				9.3	%
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	PB-214				0.86	pCi/g
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	PB-214 Count Error				21	%
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	RA-226				0.40	pCi/g
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	RA-226 Count Error				16	%
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	RA-228				0.54	pCi/g
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	RA-228 Count Error				17	%
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	SN-126				0.12	pCi/g
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	SN-126 Count Error				22	%
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	TL-208				0.16	pCi/g
W08GR01109	B1V4T6	GPP	TRENT	Gamma Energy Analysis-grd H2O	TL-208 Count Error				15	%

RQ=Result Qualifier J - Analyte < lowest calibration but > = MDL.(org)

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WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F08-095

Group #: WSCF20080857
Department: Radiochemistry

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP MS: Selenium prep blank above MDL. "C" flag when result above the MDL Manganese shows no spike recovery. "N" flags. ORGANICS: All results are moisture corrected and reported on a dry weight basis. cgc ICP-AES: Post digestion spike of lithium in LCS. Iron sample result exceeds spiking level by a factor of 4 so spike recoveries are not valid. High standard used to ensure iron linearity because sample results are greater than the calibration standard. Lithium result is calculated using a correlation due to calcium interference. This applies to spike recoveries also. W08GR01105/U-234 duplicate is flagged for poor RPD but the sample activity is low level. RPD does not apply to low level samples. 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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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080857
Matrix: SOLID
Test: Gamma Energy Analysis-grd H2O

Sample Date: 04/23/08
Receive Date:04/28/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR01082											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Cesium-137	10045-97-3	U-8.742e-3		RPD			n/a	20.000		05/09/08
BATCH QC											
BLANK	Cesium-137	10045-97-3	U-1.184e-4	n/a	pCi/g	-10.000	1000.000				05/13/08
LCS	Cesium-137	10045-97-3	6122	101.358	% Recov	80.000	120.000				05/02/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080857
Matrix: SOLID
Test: Neptunium by AEA

Sample Date: 04/29/08
Receive Date:04/29/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR01105											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Neptunium-237	13994-20-2	U1.3e-2		RPD			n/a	25.000		06/11/08
MS	Neptunium-237	13994-20-2	95.4	95.400	% Recov	75.000	125.000				06/11/08
MSD	Neptunium-237	13994-20-2	98	98.000	% Recov	75.000	125.000				06/11/08
SPK-RPD	Neptunium-237	13994-20-2	98.000		% RPD			2.689	20.000		06/11/08
Lab ID: W08GR01109											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Neptunium-237	13994-20-2	100.4	100.400	% Recov	75.000	125.000				06/11/08
Lab ID: W08GR01290											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Neptunium-237	13994-20-2	95.1	95.100	% Recov	75.000	125.000				06/11/08
BATCH QC											
BLANK	Neptunium-237	13994-20-2	U8.2e-3	n/a	pCi/G	-10.000	1000.000				06/11/08
LCS	Neptunium-237	13994-20-2	11.94	93.684	% Recov	80.000	120.000				06/11/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080857
Matrix: SOLID
Test: Plutonium Isotopics by AEA

Sample Date: 04/29/08
Receive Date:04/29/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR01105											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Plutonium-238	13981-16-3	U7.9e-3		RPD			n/a	20.000		06/12/08
DUP	Pu-239/240 by AEA	PU-239/240	U1.6e-3		RPD			n/a	20.000		06/12/08
DUP	Pu-242 tracer by AEA	PU242	5.9	84.118	% Recov	30.000	105.000				06/12/08
SURR	Pu-242 tracer by AEA	PU242	5.868	86.080	% Recov	30.000	105.000				06/12/08
Lab ID: W08GR01109											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Pu-242 tracer by AEA	PU242	5.388	83.870	% Recov	30.000	105.000				06/12/08
BATCH QC											
BLANK	Plutonium-238	13981-16-3	U6.2e-3	n/a	pCi/g	-10.000	1000.000				06/12/08
BLANK	Pu-239/240 by AEA	PU-239/240	6.2e-3	0.006	pCi/g	-10.000	1000.000				06/12/08
BLANK	Pu-242 tracer by AEA	PU242	6.196	84.650	% Recov	30.000	105.000				06/12/08
LCS	Pu-239/240 by AEA	PU-239/240	11.93	92.877	% Recov	80.000	120.000				06/12/08
LCS	Pu-242 tracer by AEA	PU242	17.19	82.130	% Recov	30.000	105.000				06/12/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080857
Matrix: SOLID
Test: Strontium 89/90

Sample Date: 04/17/08
Receive Date:04/28/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR01075											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Sr-85 Tracer by Beta Counting	SR85	89.3	89.300	% Recov	30.000	105.000				05/06/08
DUP	Strontium-89/90	SR-RAD	6.1E+01		RPD			10.853	20.000		05/06/08
Lab ID: W08GR01105											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Sr-85 Tracer by Beta Counting	SR85	77.7	77.700	% Recov	30.000	105.000				05/06/08
Lab ID: W08GR01109											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Sr-85 Tracer by Beta Counting	SR85	79.4	79.400	% Recov	30.000	105.000				05/06/08
BATCH QC											
BLANK	Sr-85 Tracer by Beta Counting	SR85	100.7	100.700	% Recov	30.000	105.000				05/06/08
BLANK	Strontium-89/90	10098-97-2	U-1.0	n/a	pCi/g	-10.000	300.000				05/06/08
LCS	Sr-85 Tracer by Beta Counting	SR85	85.5	85.500	% Recov	30.000	105.000				05/06/08
LCS	Strontium-89/90	10098-97-2	77.1	109.947	% Recov	80.000	120.000				05/06/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080857
Matrix: SOLID
Test: Uranium Isotopics by AEA

Sample Date: 04/29/08
Receive Date:04/29/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR01105											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	U-232 tracer by AEA	U232	3.93	82.140	% Recov	30.000	105.000				06/12/08
DUP	Uranium-233/234	U-233/234	0.12		RPD			43.655	20.000 •		06/12/08
DUP	Uranium-235	15117-96-1	U1.1e-2		RPD			n/a	20.000		06/12/08
DUP	Uranium-238	U-238	0.12		RPD			18.182	20.000		06/12/08
SURR	U-232 tracer by AEA	U232	3.893	79.660	% Recov	30.000	105.000				06/12/08
Lab ID: W08GR01109											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	U-232 tracer by AEA	U232	3.575	85.190	% Recov	30.000	105.000				06/12/08
BATCH QC											
BLANK	U-232 tracer by AEA	U232	4.111	80.070	% Recov	30.000	105.000				06/12/08
BLANK	Uranium-233/234	13966-29-5	3.6e-2	0.036	pCi/g	-10.000	1000.000				06/12/08
BLANK	Uranium-235	15117-96-1	U4.9e-3	n/a	pCi/g	-10.000	1000.000				06/12/08
BLANK	Uranium-238	24678-82-8	2.7e-2	0.027	pCi/g	-10.000	1000.000				06/12/08
LCS	U-232 tracer by AEA	U232	11.41	76.120	% Recov	30.000	105.000				06/12/08
LCS	Uranium-233/234	13966-29-5	N/A	n/a	% Recov	75.000	125.000				06/12/08
LCS	Uranium-235	15117-96-1	N/A	n/a	% Recov	75.000	125.000				06/12/08
LCS	Uranium-238	24678-82-8	21.39	112.846	% Recov	80.000	120.000				06/12/08

M4W41-SLF-08-621

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 12 pages
Including cover page

Waste Sampling and Characterization Facility
P.O. BOX 1970 S3-30, Richland, WA 99352
PHONE: (509) 373-7004/FAX: (509) 373-7134

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program
Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 122640/ES10
Group#: 20080857
Project#: F08-095
Proj Mgr: Steve Trent E6-35
Phone: 373-5869

The following samples were received from you on 04/29/08. 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
W08GR01105	B1V4R8	GPP @2008 @AEA-30 @AEA-32 @AEA-33 @GEA-GPP @GPP6010 @SR89_90 @SVOCGPP @TPHD-WA PERSOLID	TRENT Solid, or handle as if solid	04/29/08
W08GR01106	B1V4R6	GPP @VOA-GPP	TRENT Solid, or handle as if solid	04/29/08
W08GR01107	B1V4R7	GPP	TRENT Solid, or handle as if solid	04/29/08
W08GR01108	B1V4T2	GPP	TRENT Solid, or handle as if solid	04/29/08
W08GR01109	B1V4T6	GPP @2008 @AEA-30 @AEA-32 @AEA-33 @GEA-GPP @GPP6010 @SR89_90 @SVOCGPP @TPHD-WA PERSOLID	TRENT Solid, or handle as if solid	04/29/08
W08GR01110	B1V4T0	GPP	TRENT Solid, or handle as if solid	04/29/08
W08GR01111	B1V4T4	GPP @VOA-GPP	TRENT Solid, or handle as if solid	04/29/08
W08GR01112	B1V4T1	GPP	TRENT Solid, or handle as if solid	04/29/08
W08GR01113	B1V4T5	GPP	TRENT Solid, or handle as if solid	04/29/08

Test Acronym Description

Test Acronym	Description
@2008	ICP-200.8 MS All possible meta
@AEA-30	Plutonium Isotopics 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
@SR89_90	Strontium 89/90
@SVOCGPP	SW-846 8270C Semi-Vols
@TPHD-WA	NWTPH-D TPH Diesel Range (Wa)

Groundwater Remediation Program

Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 122640/ES10
Group#: 20080857
Project#: F08-095
Proj Mgr: Steve Trent E6-35
Phone: 373-5869

Test Acronym Description

Test Acronym	Description
@VOA-GPP	VOA Ground Water Protection
PERSOLID	Percent Solids

Fluor Hanford Inc. — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST — F08-095-004 — PAGE 1 OF 1

COLLECTOR NCO Sampler Fulton/Pope	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** WIDRIG, DL
SAMPLING LOCATION C5572	**PROJECT DESIGNATION** 200-ZP-1 (C5572, C5573, & C5574) - Waste Management		**SAF NO.** F08-095
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-575-4	**ACTUAL SAMPLE DEPTH** 295 ft	**COA** 122640ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**

PRICE CODE 8N — **AIR QUALITY** ☐ — **DATA TURNAROUND** 45 Days / 45 Days

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: 20080857

PRESERVATION	Cool~4C	Cool~4C	None
TYPE OF CONTAINER	aG	G/P	Square Bottle - Poly
NO. OF CONTAINER(S)	1	1	1
VOLUME	250mL	120mL	500mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS

ICED

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B1V4R8 W086120 1105	SOIL	4-29-08	1015	✓	✓	✓

Lot # 024075 011219 519616

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Chris Fulton	4-29-08 1105	TA FRAZIER Jesse, Jesse	4-29-08 1105
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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

Sample @ 295 feet from drum number ZP1-07-217 / 0042881. Radioactive tie to B1V4R5.
(1)Semi-VOA - 8270B (TCL) {2-Methylphenol (cresol, o-), Phenol} Semi-VOA - 8270B (Add-On) {3+4 Methylphenol (cresol, m+p)} TPH-Diesel/Kerosene Range - WTPH-D {Total petroleum hydrocarbons - kerosene range}
(2)ICP Metals - 6010B (TAL) {Iron} ICP Metals - 6010B (Add-On) {Lithium} ICP/MS - 200.8 (TAL) {Chromium, Manganese} ICP/MS - 200.8 (Add-on) {Arsenic, Selenium} 200.8_HG - ICPMS;
(3)Gamma Spectroscopy {Cesium-137} Isotopic Plutonium; Isotopic Uranium; Neptunium-237; Strontium-89/90 -- Total Sr;

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

A-6003-618(01/06)

COLLECTOR NCO Sampler Fulton / Pope	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** WIDRIG, DL	**PRICE CODE** 8N
SAMPLING LOCATION C5572	**PROJECT DESIGNATION** 200-ZP-1 (C5572, C5573, & C5574) - Waste Management		**SAF NO.** F08-095	**AIR QUALITY** ☐
ICE CHEST NO.	**FIELD LOGBOOK NO.** DNF-N-575-4	**ACTUAL SAMPLE DEPTH** 295 ft	**COA** 122640ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**	

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

PRESERVATION	Cool <-7C and >-20C	Cool~4C
TYPE OF CONTAINER	aG/S	aG/S
NO. OF CONTAINER(S)	5	3
VOLUME	40mL	40mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

ICED

SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**		
B1V4R6 W0786C0 ~~ac~~	SOIL	4-29-08	1015	✓	✓

Lot 8215080 8215080

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Chris Fulton / Chris Pope	4-29-08 1105	TA FRAZIER Terry Frazier	4-29-08 1105

SPECIAL INSTRUCTIONS
Sample @ 295 feet from drum number ZP1-07-217 / 0042881. Radioactive tie to B1V4R5.
(1)VOA - 5035/8260 (LOW LEVEL) {1,1,1-Trichloroethane, 2-Butanone, 2-Pentanone, 4-Methyl, Acetone, Carbon tetrachloride, Methylene chloride} VOA - 5035/8260 (LOW LEVEL) - (Add-On) {n-Butylbenzene}
(2)VOA - 5035/8260 (HIGH LEVEL) {1,1,1-Trichloroethane, 2-Butanone, 2-Pentanone, 4-Methyl, Acetone, Carbon tetrachloride, Methylene chloride} VOA - 5035/8260 (HIGH LEVEL) - (Add-On) {n-Butylbenzene}

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

A-6003-618(01/06)

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	8N	DATA TURNAROUND
NCO Sampler Fulton / Pope	TRENT, SJ	373-5869	WIDRIG, DL	AIR QUALITY	☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**			
C5572	200-ZP-1 (C5572, C5573, & C5574) - Waste Management		F08-095			
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**		
	HNF-N-575-4	295 ft	122640ES10	GOVERNMENT VEHICLE		
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**			
Waste Sampling & Characterization						

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

PRESERVATION	Cool~4C
TYPE OF CONTAINER	aG/S
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

ICED

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B1V4R7 W086120 1107	SOIL	4-29-08	1015

Lot 8215080

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Chris Fulton	4-29-08 1105	TA Frazier	4-29-08 1105
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

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
Sample @ 295 feet from drum number ZP1-07-217 / 0042881. Radioactive tie to B1V4R5.
(1)VOA - 5035/8260 (TCL); VOA - 5035/8260 - (Add-On) {n-Butylbenzene}

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

A-6003-618(01/06)

COLLECTOR NCO Sampler Fulton / Pope	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** WIDRIG, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C5574	**PROJECT DESIGNATION** 200-ZP-1 (C5572, C5573, & C5574) - Waste Management		**SAF NO.** F08-095	**AIR QUALITY** ☐	45 Days / 45 Days
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-575-4	**ACTUAL SAMPLE DEPTH** 302 ft	**COA** 122640ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		

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

PRESERVATION	Cool~4C	Cool~4C	None
TYPE OF CONTAINER	aG	G/P	Square Bottle - Poly
NO. OF CONTAINER(S)	1	1	1
VOLUME	250mL	120mL	500mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B1V4T6 W0F620109	SOIL	4-29-08	0930	✓	✓	✓

Lot # 024075 2241090 519616

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Chris Fulton / Clinton	4-29-08 1105	TA Pharzin Tellez	4-29-08 1105
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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
Sample @ 302 feet from drum number ZP1-07-138 / 0037686. Radioactive tie to B1V4T3
(1)Semi-VOA - 8270B (TCL) {2-Methylphenol (cresol, o-), Phenol} Semi-VOA - 8270B (Add-On) {3+4 Methylphenol (cresol, m+p)} TPH-DieselKerosene Range - WTPH-D {Total petroleum hydrocarbons - kerosene range}
(2)ICP Metals - 6010B (TAL) {Iron} ICP Metals - 6010B (Add-On) {Lithium} ICP/MS - 200.8 (TAL) {Chromium, Manganese} ICP/MS - 200.8 (Add-on) {Arsenic, Selenium} 200.8_HG - ICPMS;
(3)Gamma Spectroscopy {Cesium-137} Isotopic Plutonium; Isotopic Uranium; Neptunium-237; Strontium-89,90 -- Total Sr;

ICED

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 | F08-095-014 | PAGE 1 OF 1

COLLECTOR NCO Sampler Fulton/Pope	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** WIDRIG, DL	**PRICE CODE** 8N
SAMPLING LOCATION C5574	**PROJECT DESIGNATION** 200-ZP-1 (C5572, C5573, & C5574) - Waste Management		**SAF NO.** F08-095	**AIR QUALITY** ☐
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH** 302 ft	**COA** 122640ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**	

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

PRESERVATION	Cool <-7C and >-20C	Cool~4C
TYPE OF CONTAINER	aG/S	aG/S
NO. OF CONTAINER(S)	5	3
VOLUME	40mL	40mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B1V4T4 W056020111	SOIL	4-29-08	0930	✓	✓

6215060

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Chris Fulton	4-29-08 1105	TA Frazier	4-29-08 1105
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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
Sample @ 302 feet from drum number ZP1-07-138 / 0037686. Radioactive tie to B1V4T3
(1)VOA - 5035/8260 (LOW LEVEL) {1,1,1-Trichloroethane, 2-Butanone, 2-Pentanone, 4-Methyl, Acetone, Carbon tetrachloride, Methylene chloride} VOA - 5035/8260 (LOW LEVEL) - (Add-On) {n-Butylbenzene}
(2)VOA - 5035/8260 (HIGH LEVEL) {1,1,1-Trichloroethane, 2-Butanone, 2-Pentanone, 4-Methyl, Acetone, Carbon tetrachloride, Methylene chloride} VOA - 5035/8260 (HIGH LEVEL) - (Add-On) {n-Butylbenzene}

ICED

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

55 of 63

A-6003-618(01/06)

Fluor Hanford Inc. | CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST | F08-095-013 | PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	8N	DATA TURNAROUND
NCO Sampler Fu Hon	TRENT, SJ	373-5869	WIDRIG, DL	AIR QUALITY	☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**			
C5574	200-ZP-1 (C5572, C5573, & C5574) - Waste Management		F08-095			
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**		
	HNF-N-575-4	302 ft	122640ES10	GOVERNMENT VEHICLE		
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**			
Waste Sampling & Characterization						

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

PRESERVATION	Cool~4C
TYPE OF CONTAINER	aG/S
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B1V4T5 W0586011/3	SOIL	4-29-08	0930	✓

6215060

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Chris Fu Hon	4-29-08 1105	TA Frazier	4-29-08 1105
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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
Sample @ 302 feet from drum number ZP1-07-138 / 0037686. Radioactive tie to B1V4T3
(1)VOA - 5035/8260 (TCL); VOA - 5035/8260 - (Add-On) {n-Butylbenzene}

ICED

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 — F08-095-020 — PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	2A	DATA TURNAROUND
NCO Sampler Fulton	TRENT, SJ	373-5869	WIDRIG, DL	AIR QUALITY	☐	24 Hours / 15 Days

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.
C5573	200-ZP-1 (C5572, C5573, & C5574) - Waste Management	F08-095

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT
	HNF-N-575-41	320ft	122640ES10	GOVERNMENT VEHICLE

SHIPPED TO	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.
Waste Sampling & Characterization		

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

PRESERVATION	Cool~4C	Cool~4C	None
TYPE OF CONTAINER	aG	G/P	Square Bottle - Poly
NO. OF CONTAINER(S)	1	1	1
VOLUME	250mL	120mL	500mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B1V4T2 WC86R01108	SOIL	4-29-08	0830	✓	✓	✓

LOT # 024075 3091100 519616

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Chris Fulton	4-29-08 1105	TA Mazirs	4-29-08 1105
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

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

Sample @ 320 feet from drum number ZP1-08-060 / 0049284. Radioactive tie to B1V4R9
(1)Semi-VOA - 8270B (TCL) {2-Methylphenol (cresol, o-), Phenol} Semi-VOA - 8270B (Add-On) {3+4 Methylphenol (cresol, m+p)} TPH-DieselKerosene Range - WTPH-D {Total petroleum hydrocarbons - kerosene range}
(2)ICP Metals - 6010B (TAL) {Iron} ICP Metals - 6010B (Add-On) {Lithium} ICP/MS - 200.8 (TAL) {Chromium, Manganese} ICP/MS - 200.8 (Add-on) {Arsenic, Selenium} 200.8_HG - ICPMS;
(3)Gamma Spectroscopy {Cesium-137} Isotopic Plutonium; Isotopic Uranium; Neptunium-237; Strontium-89,90 -- Total Sr;

ICED

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

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A-6003-618(01/06)

FLUOR HANFORD INC. | CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST | F08-095-008 | PAGE 1 OF 1

COLLECTOR NCO Sampler Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** WIDRIG, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C5573	**PROJECT DESIGNATION** 200-ZP-1 (C5572, C5573, & C5574) - Waste Management		**SAF NO.** F08-095	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-575-4	**ACTUAL SAMPLE DEPTH** 320ft	**COA** 122640ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		

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

PRESERVATION	Cool <-7C and >-20C	Cool~4C
TYPE OF CONTAINER	aG/S	aG/S
NO. OF CONTAINER(S)	5	3
VOLUME	40mL	40mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B1V4T0 W086N201110	SOIL	4-29-08	0830	✓	✓

Lot# 625060

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Chris Fulton / [illegible]	4-29-08 1105	TAPEKAZIM [illegible]	4-29-08 1105
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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
Sample @ 320 feet from drum number ZP1-08-060 / 0049284. Radioactive tie to B1V4R9
(1)VOA - 5035/8260 (LOW LEVEL) {1,1,1-Trichloroethane, 2-Butanone, 2-Pentanone, 4-Methyl, Acetone, Carbon tetrachloride, Methylene chloride} VOA - 5035/8260 (LOW LEVEL) - (Add-On) {n-Butylbenzene}
(2)VOA - 5035/8260 (HIGH LEVEL) {1,1,1-Trichloroethane, 2-Butanone, 2-Pentanone, 4-Methyl, Acetone, Carbon tetrachloride, Methylene chloride} VOA - 5035/8260 (HIGH LEVEL) - (Add-On) {n-Butylbenzene}

ICED

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

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A-6003-618(01/06)

COLLECTOR NCO Sampler Fu Hon	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** WIDRIG, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C5573	**PROJECT DESIGNATION** 200-ZP-1 (C5572, C5573, & C5574) - Waste Management		**SAF NO.** F08-095	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-575-4	**ACTUAL SAMPLE DEPTH** 320 ft	**COA** 122640ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		

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

PRESERVATION	Cool~4C
TYPE OF CONTAINER	aG/S
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B1V4T1 W0866101112	SOIL	4-29-08	0830

Lot # 6215080

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Chris Fulton	4-29-08 1105	TAFRAZIM	4-29-08 1105
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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
Sample @ 320 feet from drum number ZP1-08-060 / 0049284. Radioactive tie to B1V4R9
(1)VOA - 5035/8260 (TCL); VOA - 5035/8260 - (Add-On) {n-Butylbenzene}

ICED

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

M4W41-SLF-08-621

ATTACHMENT 5

SAMPLE RECORD SHEET

Consisting of 4 pages
Including cover page

4/29/08 C5573 DRUM# 2P1-08-060 (317'-321')

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
B1V4T0	K	31.4	37.7	6.3	---	---	---
	L	31.3	39.0	7.7	---	---	---
	M	32.0	38.0	6.0	---	---	---
	N	31.5	38.5	7.0	---	---	---
B1V4T0	P	31.2	38.0	6.8	---	---	---
B1V4T1		30.4	30.4	0	3.7	5.0	34.1
B1V4T0	W	30.4	38.0	7.6	5.7	7.5	43.7
	X	30.0	37.3	7.3	5.9	7.5	43.2
B1V4T0	Y	30.7	39.6	8.9	7.0	9.0	46.6

[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]Ensure 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

200-2P1-Drum Sampling CSS72

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
B1V4R6	K	32.0	38.2	6.2	---	---	---
B1V4R6	L	31.9	38.3	6.4	---	---	---
	M	31.8	38.1	6.3	---	---	---
	N	31.7	37.6	5.9	---	---	---
	P	31.4	38.3	6.9	---	---	---
[redacted]							
B1V4R7		30.3	30.3	0.0	3.9	5.0	34.2
[redacted]							
B1V4R6	W	30.4	36.7	6.3	5.2	6.5	41.5
	X	30.4	36.0	5.6	4.1	6.0	40.1
	Y	30.7	36.0	5.3	4.1	5.5	40.1

[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]Ensure 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

200-ZP1 Drum Sampling C-5574

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
B1V4T4	K	31.7	36.6	4.9	---	---	---
	L	31.2	35.4	4.2	---	---	---
	M	31.3	37.0	5.7	---	---	---
	N	31.2	36.2	5.0	---	---	---
	P	31.5	36.0	4.5	---	---	---
B1V4T5		30.4	30.4	0.0	4.0	5.0	34.4
B1V4T4	W	30.3	34.8	4.5	3.6	4.5	38.3
	X	30.5	35.7	5.2	3.9	5.0	39.6
	Y	30.4	35.9	5.5	3.7	5.5	39.6

[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]Ensure 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