RECEIVED OCTOBER 9, 2007

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FLUOR

Memorandum

M4W41-SLF-07-704

To: H. Hampt E6-35 Date: October 3, 2007

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

cc: w/Attachments

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

Subject: FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20071507 – SAF NUMBER F07-043

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 groupWSCF20071507:

- 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

M4W41-SLF-07-704

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20071507
Data Deliverable Date: 04-oct-2007
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
F07-043	B1NRF8	W07GR02244	SOIL
	B1NRJ1	W07GR02243	SOIL

M4W41-SLF-07-704

ATTACHMENT 2

NARRATIVE

Consisting of 5 pages
Including cover page

Sample Delivery Group	**WSCF20071507**
Sample Matrix	**Solid**
Data Deliverable	**Summary Report**

Introduction

Three (3) groundwater samples were received at the WSCF Laboratory on August 22, 2007. Two of the three samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter. Analyses of the high concentration soil VOA sample material and the corresponding Methanol Blank (B1NRF9) 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. In addition, copy of the sample record sheet is included as Attachment 5.

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

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report,* pages 14 through 17, for a complete listing of approved analytical methods.

Inorganic Comments

Anions – The hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See pages 20 through 21 for QC details. Analytical Note(s):

- Duplicate, Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1NRH7 (SDG# 20071366, SAF# F07-043).
- Sample results were D flagged (dilution).
- Sample results that were less than the reportable limit, however greater than the method detection limit were B flagged.
- Sulfate Duplicate Relative Percent Difference (RPD) exceeded established laboratory limits. No flags issued.

All other QC controls are within the established limits.

Cyanide – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See page 22 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1NRH9 (SDG# 20071462, SAF# F07-043).

All 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 23 through 24 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1NRH9 (SDG# 20071462, SAF# F07-043).
- Copper contamination detected in the Blank was evaluated and there was no affect on sample result.

All other QC controls are within the established limits.

Percent Solids - Percent solids were performed for organic analyses result correction.

Organic Comments

- Sample results are moisture corrected and reported on dry weight basis.

PCB – 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 30 through 31 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1PKK9 (SDG# 20071535, SAF# F03-015).
- Aroclor-1260 – Matrix Spike and Matrix Spike Duplicate exceeded established laboratory limits. No flags issued.

All other QC controls are within the established limits.

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

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1PKK6 (SDG# 20071535, SAF# F03-015).

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 36 for QC details.

All QC controls are within the established limits.

TPHG-WA – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See page 37 for QC details. Analytical Note(s):

- Duplicate, Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1NRJ0 (SDG# 20071485, SAF# F07-043).
- Laboratory Control Sample recovery was slightly less than established laboratory limits. No flags issued.

All other 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. See pages 38 through 40 for QC details. Analytical Note(s):

- Analyses of the high concentration soil VOA sample material and the corresponding Methanol Blank (B1NRF9) were not required.
- Toluene-D8 (Surrogate) – Matrix Spike recovery slightly exceeded established laboratory limits. No flags issued.
- Benzene – Spike Relative Percent Difference (RPD) slightly exceeded established laboratory limits. No flags issued.
- Toluene-D8 (Surrogate) – Spike Relative Percent Difference (RPD) slightly exceeded established laboratory limits. No flags issued.
- Trichloroethene – Spike Relative Percent Difference (RPD) slightly exceeded established laboratory limits. No flags issued.

All other QC controls are within the established limits.

Radiochemistry Comments

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

- Americium-241 – Duplicate was analyzed on sample# B1NRH8 (SDG# 20071412, SAF# F07-043). Duplicate Relative Percent Difference (RPD) exceeded established laboratory limits due to low sample activity. No flags issued.

- Americium-243 – Tracer recovery slightly exceeded established laboratory limits.

- Plutonium-238, 239/240 and 242 (Tracer) – Duplicate was analyzed on sample# B1NRH8 (SDG# 20071412, SAF# F07-043).

- Uranium-232 (tracer), 233/234, 235 and 238 – Duplicate was analyzed on sample# B1NRH8 (SDG# 20071412, SAF# F07-043).

All other QC controls are within the established limits.

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

Scot L. Fitzgerald
WSCF Analytical Laboratory Manager

Pauline D. Mix
WSCF Client Services

Abbreviations

Hg – mercury
IC – ion chromatography
ICP – inductively coupled plasma
ICP/AES – ICP/atomic emission spectroscopy
ICP/MS – ICP/mass spectrometry
Total U – total uranium
AT/TB – total alpha/total beta
AEA – Alpha Energy Analysis
WTPH-G – Total Hydrocarbons-Gasoline

Am – americium
Cm - curium
Pu – plutonium
Np – neptunium
GEA – gamma energy analysis
H3 – Tritium
Sr – Strontium 89, 90
WTPH-D – Total Hydrocarbons-Diesel
TSS – Total Suspended Solids

M4W41-SLF-07-704

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 10/4/07

Client Services: R.D. Hix 10/3/2007

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#: WSCF20071507
Report Date: 2-oct-2007
Report WGPP/ver. 5.2

w13qlog v4.2 02-oct-2007 15:30:15

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20071507

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
				SAMPLE	W07GR02243	Percent Solids
33124	1	33529	37605	BLANK		Cyanide by Midi/Spectrophotom
33124	2	33529	37605	LCS		Cyanide by Midi/Spectrophotom
33124	4	33529	37605	MS	W07GR02165	Cyanide by Midi/Spectrophotom
33124	5	33529	37605	MSD	W07GR02165	Cyanide by Midi/Spectrophotom
33124	5	33529	37605	SPK-RPD	W07GR02165	Cyanide by Midi/Spectrophotom
33124	7	33529	37605	SAMPLE	W07GR02243	Cyanide by Midi/Spectrophotom
33186	1	33591	37673	BLANK		ICP-200.8 MS All possible meta
33186	2	33591	37673	LCS		ICP-200.8 MS All possible meta
33186	4	33591	37673	MS	W07GR02165	ICP-200.8 MS All possible meta
33186	5	33591	37673	MSD	W07GR02165	ICP-200.8 MS All possible meta
33186	5	33591	37673	SPK-RPD	W07GR02165	ICP-200.8 MS All possible meta
33186	7	33591	37673	SAMPLE	W07GR02243	ICP-200.8 MS All possible meta
33219	2	33623	37713	BLANK		Anions by Ion Chromatography
33219	12	33623	37713	BLANK		Anions by Ion Chromatography
33219	3	33623	37713	LCS		Anions by Ion Chromatography
33219	5	33623	37713	DUP	W07GR02025	Anions by Ion Chromatography
33219	6	33623	37713	MS	W07GR02025	Anions by Ion Chromatography
33219	7	33623	37713	MSD	W07GR02025	Anions by Ion Chromatography
33219	7	33623	37713	SPK-RPD	W07GR02025	Anions by Ion Chromatography
33219	11	33623	37713	SAMPLE	W07GR02243	Anions by Ion Chromatography

w13qlog v4.2 02-oct-2007 15:30:15

Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20071507

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			37683	BLANK		NWTPH-D TPH Diesel Range (Wa)
			37683	LCS		NWTPH-D TPH Diesel Range (Wa)
			37683	MS	W07GR02243	NWTPH-D TPH Diesel Range (Wa)
			37683	MSD	W07GR02243	NWTPH-D TPH Diesel Range (Wa)
			37683	SAMPLE	W07GR02243	NWTPH-D TPH Diesel Range (Wa)
			37683	SPK-RPD	W07GR02243	NWTPH-D TPH Diesel Range (Wa)
			37683	SURR	W07GR02243	NWTPH-D TPH Diesel Range (Wa)
			37792	BLANK		SW-846 8270C Semi-Vols
			37792	LCS		SW-846 8270C Semi-Vols
			37792	SAMPLE	W07GR02243	SW-846 8270C Semi-Vols
			37792	SURR	W07GR02243	SW-846 8270C Semi-Vols
			37792	MS	W07GR02290	SW-846 8270C Semi-Vols
			37792	MSD	W07GR02290	SW-846 8270C Semi-Vols
			37792	SPK-RPD	W07GR02290	SW-846 8270C Semi-Vols
			37793	BLANK		PCBs complete list
			37793	LCS		PCBs complete list
			37793	SAMPLE	W07GR02243	PCBs complete list
			37793	SURR	W07GR02243	PCBs complete list
			37793	MS	W07GR02294	PCBs complete list
			37793	MSD	W07GR02294	PCBs complete list
			37793	SPK-RPD	W07GR02294	PCBs complete list
33458	1	33859	37969	BLANK		NWTPH-GX TPH Gasoline Range
33458	2	33859	37969	LCS		NWTPH-GX TPH Gasoline Range
33458	4	33859	37969	DUP	W07GR02213	NWTPH-GX TPH Gasoline Range
33458	5	33859	37969	MS	W07GR02213	NWTPH-GX TPH Gasoline Range
33458	6	33859	37969	MSD	W07GR02213	NWTPH-GX TPH Gasoline Range
33458	6	33859	37969	SPK-RPD	W07GR02213	NWTPH-GX TPH Gasoline Range
33458	7	33859	37969	SAMPLE	W07GR02243	NWTPH-GX TPH Gasoline Range
			38039	BLANK		VOA Ground Water Protection
			38039	LCS		VOA Ground Water Protection
			38039	MS	W07GR02244	VOA Ground Water Protection
			38039	MSD	W07GR02244	VOA Ground Water Protection
			38039	SAMPLE	W07GR02244	VOA Ground Water Protection
			38039	SPK-RPD	W07GR02244	VOA Ground Water Protection
			38039	SURR	W07GR02244	VOA Ground Water Protection

w13qlog v4.2 02-oct-2007 15:30:15

Department: Radiochemistry

W13q Worklist/Batch/QC Report for Group# WSCF20071507

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
33256	1	33659	37802	BLANK		Uranium Isotopics by AEA
33256	2	33659	37802	LCS		Uranium Isotopics by AEA
33256	3	33659	37802	DUP	W07GR02087	Uranium Isotopics by AEA
33256	8	33659	37802	SAMPLE	W07GR02243	Uranium Isotopics by AEA
33256	9	33659	37802	SURR	W07GR02243	Uranium Isotopics by AEA
33278	1	33682	37803	BLANK		Plutonium Isotopics by AEA
33278	2	33682	37803	LCS		Plutonium Isotopics by AEA
33278	3	33682	37803	DUP	W07GR02087	Plutonium Isotopics by AEA
33278	8	33682	37803	SAMPLE	W07GR02243	Plutonium Isotopics by AEA
33278	9	33682	37803	SURR	W07GR02243	Plutonium Isotopics by AEA
33279	1	33683	37804	BLANK		Americium by AEA
33279	2	33683	37804	LCS		Americium by AEA
33279	3	33683	37804	DUP	W07GR02087	Americium by AEA
33279	8	33683	37804	SAMPLE	W07GR02243	Americium by AEA
33279	9	33683	37804	SURR	W07GR02243	Americium by AEA
33115	1	33520	37907	BLANK		Gamma Energy Analysis-grd H2O
33115	2	33520	37907	LCS		Gamma Energy Analysis-grd H2O
33115	3	33520	37907	DUP	W07GR02243	Gamma Energy Analysis-grd H2O
33115	4	33520	37907	SAMPLE	W07GR02243	Gamma Energy Analysis-grd H2O
33167	1	33572	37928	BLANK		Strontium 89/90
33167	2	33572	37928	LCS		Strontium 89/90
33167	3	33572	37928	DUP	W07GR02243	Strontium 89/90
33167	4	33572	37928	SAMPLE	W07GR02243	Strontium 89/90
33167	5	33572	37928	SURR	W07GR02243	Strontium 89/90

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-505-412 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

LA-519-412 LA-519-412: TOTAL RESIDUE/% SOLIDS DRIED AT 103 - 105 C

EPA-600/4-79-020 160.1	Resisual, Filterable
EPA-600/4-79-020 160.3	RESIDUE, TOTAL
HEIS 160.1_TDS	Residual, Filterable
Standard Methods 2540B	Total Solids Dried at 103-105 C

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

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

LA-695-402 LA-695-402: DETERMINATION OF CYANIDE BY MIDIDISTILLATION AND SPECTROPHOTOMETRIC

EPA-600/4-79-020 335.2	Cyanide, Total
HEIS 335.2_CYANIDE	Cyanide, Total

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at http://www2.rl.gov/phmc/as-dol.

WSCF
METHOD REFERENCES REPORT

Department: Organic

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-523-427 LA-523-427: POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY

EPA SW-846 3510C	SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION
EPA SW-846 3545	PRESSURIZED FLUID EXTRACTION (PFE)
EPA SW-846 3665A	SULFURIC ACID/PERMANGANATE CLEANUP
EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
EPA SW-846 8082A	POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY
HEIS 8082_PCB_GC	Polychlorinated Biphenyls (PCBs) by Gas Chromatography

LA-523-443 LA-523-443: GAS CHROMATOGRAPH ANALYSIS OF GASOLINE RANGE TOTAL PETROLEUM HYDROCA

HEIS WTPH_GASOLINE	Total Petroleum Hydrocarbons, Gasoline
WDOE TPH NWTPH-G	Volatile Petroleum Products Method for Soil and Water

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: 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.

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: F07-043
Sample # W07GR02243
Client ID: B1NRJ1 TRENT WSCF

Matrix: SOIL

Group #: WSCF20071507
Department: Inorganic
Sampled: 08/22/07
Received: 08/22/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography Prep											**09/06/07**
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410	DU	< 0.294	mg/kg			49.00	0.29		09/06/07
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.490	mg/kg			49.00	0.49		09/06/07
Nitrogen in Nitrate	NO3-N	LA-533-410	BD	2.81	mg/kg			49.00	0.24		09/06/07
Phosphate (P) by IC	PO4-P	LA-533-410	DU	< 1.96	mg/kg			49.00	2.0		09/06/07
Sulfate	14808-79-8	LA-533-410	BD	12.0	mg/kg			49.00	3.4		09/06/07
Cyanide											
Cyanide	57-12-5	LA-695-402	U	< 0.200	mg/kg			1.00	0.20		08/28/07
ICP-200.8 MS All possible meta Prep											**09/04/07**
ICP-200.8 MS All possible meta											
Silver	7440-22-4	LA-505-412	U	< 0.0983	mg/kg			0.98	0.0983		09/05/07
Barium	7440-39-3	LA-505-412		42.2	mg/kg			0.98	0.197		09/05/07
Cadmium	7440-43-9	LA-505-412	U	< 0.0983	mg/kg			0.98	0.0983		09/05/07
Chromium	7440-47-3	LA-505-412		12.4	mg/kg			0.98	0.491		09/05/07
Copper	7440-50-8	LA-505-412		9.62	mg/kg			0.98	0.0983		09/05/07
Lead	7439-92-1	LA-505-412		1.52	mg/kg			0.98	0.0983		09/05/07
Mercury	7439-97-6	LA-505-412	U	< 0.0491	mg/kg			0.98	0.0491		09/05/07
Uranium	7440-61-1	LA-505-412		0.286	mg/kg			0.98	0.0491		09/05/07
Arsenic	7440-38-2	LA-505-412		0.716	mg/kg			0.98	0.393		09/05/07
Selenium	7782-49-2	LA-505-412		0.394	mg/kg			0.98	0.295		09/05/07
Total solids											
Total solids	TS	LA-519-412		90.1	Percent			1.00	0.0		09/04/07

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
D - Analyte was identified at a secondary dilution factor(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 F07-043

Group #: WSCF20071507
Department: Inorganic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-MS: Copper prep blank 0.230--above the MDL but less than 5% of the sample result. No flag Organics: All results are moisture corrected and reported on a dry weight basis. cgc PCB: CCVs high and MS/MSD biased high. Not a problem since no target hits in the samples for this batch. gar TPHG-WA: Possible poor purge of LCS, which is marked as low at 84.29 % recovery. gar Am241 batch dup is flagged for poor RPD but the sample activity is low level. RPD does not apply to low level samples. lmh VOA: One surrogate Toluene-d8 out high in the MS at 121.% Recovery. The Spike RPDs were high for Trichlorobenzene, Benzene, and Toluene-d8. gar Am-243 tracer recovery is slightly out of limits. Since all the other tracer recoveries came out fine, this batch has been approved. lmh

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

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071507
Matrix: SOLID
Test: Anions by Ion Chromatography

Sample Date: 07/24/07
Receive Date:08/03/07

Lab ID: W07GR02025

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
DUP	Fluoride	16984-48-8	<0.294		RPD			n/a	20.000	U	09/06/07
DUP	Nitrogen in Nitrite	NO2-N	<0.49		RPD			n/a	20.000	U	09/06/07
DUP	Nitrogen in Nitrate	NO3-N	0.6684		RPD			17.390	20.000		09/06/07
DUP	Phosphate (P) by IC	PO4-P	<1.96		RPD			n/a	20.000	U	09/06/07
DUP	Sulfate	14808-79-8	4.6728		RPD			32.035	20.000		09/06/07
MS	Fluoride	16984-48-8	0.473764	93.815	% Recov	75.000	125.000				09/06/07
MS	Nitrogen in Nitrite	NO2-N	0.48264	96.528	% Recov	75.000	125.000				09/06/07
MS	Nitrogen in Nitrate	NO3-N	0.501858	110.057	% Recov	75.000	125.000				09/06/07
MS	Phosphate (P) by IC	PO4-P	0.873348	90.596	% Recov	75.000	125.000				09/06/07
MS	Sulfate	14808-79-8	1.84866	92.433	% Recov	75.000	125.000				09/06/07
MSD	Fluoride	16984-48-8	0.473016	93.667	% Recov	75.000	125.000				09/06/07
MSD	Nitrogen in Nitrite	NO2-N	0.480656	96.131	% Recov	75.000	125.000				09/06/07
MSD	Nitrogen in Nitrate	NO3-N	0.439296	96.337	% Recov	75.000	125.000				09/06/07
MSD	Phosphate (P) by IC	PO4-P	0.882362	91.531	% Recov	75.000	125.000				09/06/07
MSD	Sulfate	14808-79-8	1.790018	89.501	% Recov	75.000	125.000				09/06/07
SPK-RPD	Fluoride	16984-48-8	93.667		RPD			0.158	20.000		09/06/07
SPK-RPD	Nitrogen in Nitrite	NO2-N	96.131		RPD			0.412	20.000		09/06/07
SPK-RPD	Nitrogen in Nitrate	NO3-N	96.337		RPD			13.295	20.000		09/06/07
SPK-RPD	Phosphate (P) by IC	PO4-P	91.531		RPD			1.027	20.000		09/06/07
SPK-RPD	Sulfate	14808-79-8	89.501		RPD			3.223	20.000		09/06/07

BATCH QC

BLANK	Fluoride	16984-48-8	<6e-3	n/a	mg/L	0.000	0.030			U	09/06/07
BLANK	Fluoride	16984-48-8	<6e-3	n/a	mg/L	0.000	0.030			U	09/06/07
BLANK	Nitrogen in Nitrite	NO2-N	<1e-2	n/a	mg/L	0.000	0.020			U	09/06/07
BLANK	Nitrogen in Nitrite	NO2-N	<1e-2	n/a	mg/L	0.000	0.020			U	09/06/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071507
Matrix: SOLID
Test: Anions by Ion Chromatography

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Nitrogen in Nitrate	NO3-N	<5e-3	n/a	mg/L	0.000	0.040			U	09/06/07
BLANK	Nitrogen in Nitrate	NO3-N	<5e-3	n/a	mg/L	0.000	0.040			U	09/06/07
BLANK	Phosphate (P) by IC	PO4-P	<4e-2	n/a	mg/L	0.000	0.200			U	09/06/07
BLANK	Phosphate (P) by IC	PO4-P	<4e-2	n/a	mg/L	0.000	0.200			U	09/06/07
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	09/06/07
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	09/06/07
LCS	Fluoride	16984-48-8	107.9148	106.846	% Recov	80.000	120.000				09/06/07
LCS	Nitrogen in Nitrite	NO2-N	101.4789	101.479	% Recov	80.000	120.000				09/06/07
LCS	Nitrogen in Nitrate	NO3-N	93.3153	102.319	% Recov	80.000	120.000				09/06/07
LCS	Phosphate (P) by IC	PO4-P	194.0297	100.638	% Recov	80.000	120.000				09/06/07
LCS	Sulfate	14808-79-8	394.1881	98.547	% Recov	80.000	120.000				09/06/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071507
Matrix: SOLID
Test: Cyanide by Midi/Spectrophotom

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

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02165											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Cyanide by Midi/Spectrophotom	57-12-5	1.74	89.691	% Recov	75.000	125.000				08/28/07
MSD	Cyanide by Midi/Spectrophotom	57-12-5	1.79	92.268	% Recov	75.000	125.000				08/28/07
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	92.268		RPD			2.833	20.000		08/28/07
BATCH QC											
BLANK	Cyanide by Midi/Spectrophotom	57-12-5	-0.1	-0.100	ug/L	-4.000	4.000				08/28/07
LCS	Cyanide by Midi/Spectrophotom	57-12-5	47.3	96.728	% Recov	85.000	115.000				08/28/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071507
Matrix: SOLID
Test: ICP-200.8 MS All possible meta

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

Lab ID: W07GR02165
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	Silver	7440-22-4	178	89.000	% Recov	70.000	130.000				09/05/07
MS	Arsenic	7440-38-2	198.419	99.210	% Recov	70.000	130.000				09/05/07
MS	Barium	7440-39-3	195.86	97.930	% Recov	70.000	130.000				09/05/07
MS	Cadmium	7440-43-9	197.1	98.550	% Recov	70.000	130.000				09/05/07
MS	Chromium	7440-47-3	184.91	92.455	% Recov	70.000	130.000				09/05/07
MS	Copper	7440-50-8	179.797	89.898	% Recov	70.000	130.000				09/05/07
MS	Mercury	7439-97-6	2.175	108.750	% Recov	70.000	130.000				09/05/07
MS	Lead	7439-92-1	200.049	100.025	% Recov	70.000	130.000				09/05/07
MS	Selenium	7782-49-2	198.2	99.100	% Recov	70.000	130.000				09/05/07
MS	Uranium	7440-61-1	198.9641	99.482	% Recov	70.000	130.000				09/05/07
MSD	Silver	7440-22-4	199.4	99.700	% Recov	70.000	130.000				09/05/07
MSD	Arsenic	7440-38-2	205.619	102.809	% Recov	70.000	130.000				09/05/07
MSD	Barium	7440-39-3	212.06	106.030	% Recov	70.000	130.000				09/05/07
MSD	Cadmium	7440-43-9	205.4	102.700	% Recov	70.000	130.000				09/05/07
MSD	Chromium	7440-47-3	189.71	94.855	% Recov	70.000	130.000				09/05/07
MSD	Copper	7440-50-8	185.897	92.948	% Recov	70.000	130.000				09/05/07
MSD	Mercury	7439-97-6	2.194	109.700	% Recov	70.000	130.000				09/05/07
MSD	Lead	7439-92-1	209.349	104.675	% Recov	70.000	130.000				09/05/07
MSD	Selenium	7782-49-2	206.5	103.250	% Recov	70.000	130.000				09/05/07
MSD	Uranium	7440-61-1	206.6641	103.332	% Recov	70.000	130.000				09/05/07
SPK-RPD	Silver	7440-22-4	99.700		RPD			11.341	20.000		09/05/07
SPK-RPD	Arsenic	7440-38-2	102.809		RPD			3.563	20.000		09/05/07
SPK-RPD	Barium	7440-39-3	106.030		RPD			7.943	20.000		09/05/07
SPK-RPD	Cadmium	7440-43-9	102.700		RPD			4.124	20.000		09/05/07
SPK-RPD	Chromium	7440-47-3	94.855		RPD			2.563	20.000		09/05/07
SPK-RPD	Copper	7440-50-8	92.948		RPD			3.336	20.000		09/05/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Inorganic**

SDG Number: WSCF20071507
Matrix: SOLID
Test: ICP-200.8 MS All possible meta

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

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	Mercury	7439-97-6	109.700		RPD			0.870	20.000		09/05/07
SPK-RPD	Lead	7439-92-1	104.675		RPD			4.543	20.000		09/05/07
SPK-RPD	Selenium	7782-49-2	103.250		RPD			4.102	20.000		09/05/07
SPK-RPD	Uranium	7440-61-1	103.332		RPD			3.797	20.000		09/05/07

BATCH QC

BLANK	Silver	7440-22-4	<0.1	n/a	ug/L					U	09/05/07
BLANK	Arsenic	7440-38-2	<0.4	n/a	ug/L					U	09/05/07
BLANK	Barium	7440-39-3	<0.2	n/a	ug/L					U	09/05/07
BLANK	Cadmium	7440-43-9	<0.1	n/a	ug/L					U	09/05/07
BLANK	Chromium	7440-47-3	<0.5	n/a	ug/L					U	09/05/07
BLANK	Copper	7440-50-8	0.2302	0.230	ug/L						09/05/07
BLANK	Mercury	7439-97-6	<5e-2	n/a	ug/L					U	09/05/07
BLANK	Lead	7439-92-1	<0.1	n/a	ug/L					U	09/05/07
BLANK	Selenium	7782-49-2	<0.3	n/a	ug/L					U	09/05/07
BLANK	Uranium	7440-61-1	<5e-2	n/a	ug/L					U	09/05/07
LCS	Silver	7440-22-4	109.5	108.416	% Recov	98.000	134.000				09/05/07
LCS	Arsenic	7440-38-2	145	90.062	% Recov	75.000	134.000				09/05/07
LCS	Barium	7440-39-3	328.8	103.072	% Recov	87.000	121.000				09/05/07
LCS	Cadmium	7440-43-9	68.75	103.383	% Recov	95.000	124.000				09/05/07
LCS	Chromium	7440-47-3	69.64	100.201	% Recov	77.000	125.000				09/05/07
LCS	Copper	7440-50-8	68.76	100.380	% Recov	84.000	122.000				09/05/07
LCS	Mercury	7439-97-6	7.87	95.048	% Recov	71.000	132.000				09/05/07
LCS	Lead	7439-92-1	136.9	96.408	% Recov	92.000	123.000				09/05/07
LCS	Selenium	7782-49-2	178.6	110.932	% Recov	52.000	157.000				09/05/07
LCS	Uranium	7440-61-1	407	101.750	% Recov	81.000	125.000				09/05/07

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F07-043
Sample # W07GR02243
Client ID: B1NRJ1 TRENT WSCF

Matrix: SOIL

Group #: WSCF20071507
Department: Organic
Sampled: 08/22/07
Received: 08/22/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
NWTPH-D TPH Diesel Range (Wa) Prep											**09/04/07**
NWTPH-D TPH Diesel Range (Wa)											
Total Pet. Hydrocarbons Diesel	TPHDIESEL	LA-523-493	U	< 3.30e+03	ug/kg			1.00	3.3e+03		09/05/07
Kerosene	TPHKEROSENE	LA-523-493	U	< 3.30e+03	ug/kg			1.00	3.3e+03		09/05/07
NWTPH-GX TPH Gasoline Range Prep											**08/29/07**
NWTPH-GX TPH Gasoline Range											
Total Pet. Hydrocarbons Gas	TPHGASOLINE	LA-523-443	U	< 250	ug/kg			1.00	2.5e+02		08/29/07
PCBs complete list Prep											**09/04/07**
PCBs complete list											
Aroclor-1016	12674-11-2	LA-523-427	U	< 10.0	ug/kg			1.00	10		09/10/07
Aroclor-1221	11104-28-2	LA-523-427	U	< 20.0	ug/kg			1.00	20		09/10/07
Aroclor-1232	11141-16-5	LA-523-427	U	< 10.0	ug/kg			1.00	10		09/10/07
Aroclor-1242	53469-21-9	LA-523-427	U	< 10.0	ug/kg			1.00	10		09/10/07
Aroclor-1248	12672-29-6	LA-523-427	U	< 10.0	ug/kg			1.00	10		09/10/07
Aroclor-1254	11097-69-1	LA-523-427	U	< 10.0	ug/kg			1.00	10		09/10/07
Aroclor-1260	11096-82-5	LA-523-427	U	< 10.0	ug/kg			1.00	10		09/10/07
Aroclor-1262	37324-23-5	LA-523-427	U	< 10.0	ug/kg			1.00	10		09/10/07
Aroclor-1268	11100-14-4	LA-523-427	U	< 10.0	ug/kg			1.00	10		09/10/07
SW-846 8270C Semi-Vols Prep											**09/04/07**
SW-846 8270C Semi-Vols											
4-Nitrophenol	100-02-7	LA-523-456	U	< 220	ug/kg			1.00	2.2e+02		09/10/07
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	< 260	ug/kg			1.00	2.6e+02		09/10/07
Phenol	108-95-2	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		09/10/07
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		09/10/07
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		09/10/07

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

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

D - Analyte was identified at a secondary dilution factor(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: F07-043
Sample # W07GR02243
Client ID: B1NRJ1 TRENT WSCF

Matrix: SOIL

Group #: WSCF20071507
Department: Organic
Sampled: 08/22/07
Received: 08/22/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Pyrene	129-00-0	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		09/10/07
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		09/10/07
N-Nitrosodi-n-dipropylamine	621-64-7	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		09/10/07
Acenaphthene	83-32-9	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		09/10/07
Pentachlorophenol	87-86-5	LA-523-456	U	< 220	ug/kg			1.00	2.2e+02		09/10/07
2-Chlorophenol	95-57-8	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		09/10/07
Tributyl phosphate	126-73-8	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		09/10/07

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DF=Dilution Factor

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F07-043
Sample # W07GR02244
Client ID: B1NRF8 TRENT WSCF

Matrix: SOIL

Group #: WSCF20071507
Department: Organic
Sampled: 08/22/07
Received: 08/22/07

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	< 1.30	ug/kg			1.00	1.3		09/05/07
Trichloroethene	79-01-6	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
Benzene	71-43-2	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
Toluene	108-88-3	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
Chlorobenzene	108-90-7	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
Ethylbenzene	100-41-4	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
Styrene	100-42-5	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
cis-1,3-Dichloropropene	10061-01-5	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
Dibromochloromethane	124-48-1	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
1,2-Dichloroethene(Total)	540-59-0	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
2-Hexanone	591-78-6	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
Acetone	67-64-1	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
Chloroform	67-66-3	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
Bromomethane	74-83-9	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
Chloromethane	74-87-3	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
Chloroethane	75-00-3	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07

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

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F07-043
Sample # W07GR02244
Client ID: B1NRF8 TRENT WSCF

Matrix: SOIL

Group #: WSCF20071507
Department: Organic
Sampled: 08/22/07
Received: 08/22/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Vinyl chloride	75-01-4	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
Methylenechloride	75-09-2	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
Carbon disulfide	75-15-0	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
Bromoform	75-25-2	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
Bromodichloromethane	75-27-4	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
1,2-Dichloropropane	78-87-5	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
2-Butanone	78-93-3	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
1-Butanol	71-36-3	LA-523-455	U	< 130	ug/kg			1.00	1.3e+02		09/05/07
n-Butylbenzene	104-51-8	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		09/05/07

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

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

D - Analyte was identified at a secondary dilution factor(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 F07-043

Group #: WSCF20071507
Department: Organic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-MS: Copper prep blank 0.230--above the MDL but less than 5% of the sample result. No flag Organics: All results are moisture corrected and reported on a dry weight basis. cgc PCB: CCVs high and MS/MSD biased high. Not a problem since no target hits in the samples for this batch. gar TPHG-WA: Possible poor purge of LCS, which is marked as low at 84.29 % recovery. gar Am241 batch dup is flagged for poor RPD but the sample activity is low level. RPD does not apply to low level samples. lmh VOA: One surrogate Toluene-d8 out high in the MS at 121.% Recovery. The Spike RPDs were high for Trichlorobenzene, Benzene, and Toluene-d8. gar Am-243 tracer recovery is slightly out of limits. Since all the other tracer recoveries came out fine, this batch has been approved. lmh

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

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071507
Matrix: SOLID
Test: PCBs complete list

Sample Date: 08/22/07
Receive Date:08/22/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02243											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Decachlorobiphenyl	2051-24-3	217.95	107.000	% Recov	50.000	150.000				09/10/07
SURR	Tetrachloro-m-xylene	877-09-8	245.38	121.000	% Recov	50.000	150.000				09/10/07
Lab ID: W07GR02294											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Aroclor-1260	11096-82-5	349.63	137.000	% Recov	75.000	125.000				09/10/07
MS	Decachlorobiphenyl	2051-24-3	303.27	119.000	% Recov	50.000	150.000				09/10/07
MS	Tetrachloro-m-xylene	877-09-8	308.74	121.000	% Recov	50.000	150.000				09/10/07
MSD	Aroclor-1260	11096-82-5	371.75	144.000	% Recov	75.000	125.000				09/10/07
MSD	Decachlorobiphenyl	2051-24-3	336.53	130.000	% Recov	50.000	150.000				09/10/07
MSD	Tetrachloro-m-xylene	877-09-8	323.31	125.000	% Recov	50.000	150.000				09/10/07
SPK-RPD	Aroclor-1260	11096-82-5	144.000		RPD			4.982	25.000		09/10/07
SPK-RPD	Decachlorobiphenyl	2051-24-3	130.000		RPD			8.835	20.000		09/10/07
SPK-RPD	Tetrachloro-m-xylene	877-09-8	125.000		RPD			3.252	20.000		09/10/07
BATCH QC											
BLANK	Aroclor-1016	12674-11-2	< 10	n/a	UGKG					U	09/10/07
BLANK	Aroclor-1221	11104-28-2	< 20	n/a	ug/Kg					U	09/10/07
BLANK	Aroclor-1232	11141-16-5	< 10	n/a	ug/Kg					U	09/10/07
BLANK	Aroclor-1242	53469-21-9	< 10	n/a	ug/Kg					U	09/10/07
BLANK	Aroclor-1248	12672-29-6	< 10	n/a	ug/Kg					U	09/10/07
BLANK	Aroclor-1254	11097-69-1	< 10	n/a	ug/Kg					U	09/10/07
BLANK	Aroclor-1260	11096-82-5	< 10	n/a	ug/Kg					U	09/10/07
BLANK	Aroclor-1262	37324-23-5	< 10	n/a	ug/Kg					U	09/10/07
BLANK	Aroclor-1268	11100-14-4	< 10	n/a	ug/Kg					U	09/10/07
BLANK	Decachlorobiphenyl	2051-24-3	224.96	112.000	% Recov	50.000	150.000				09/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Organic**

SDG Number: WSCF20071507
Matrix: SOLID
Test: PCBs complete list

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Tetrachloro-m-xylene	877-09-8	210.09	105.000	% Recov	50.000	150.000				09/10/07
LCS	Aroclor-1260	11096-82-5	418.95	105.000	% Recov	70.000	130.000				09/10/07
LCS	Decachlorobiphenyl	2051-24-3	457.64	114.000	% Recov	50.000	150.000				09/10/07
LCS	Tetrachloro-m-xylene	877-09-8	282.05	70.500	% Recov	50.000	150.000				09/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071507
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 08/22/07
Receive Date:08/22/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02243											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	2-Fluorophenol(Surr)	367-12-4	7508.5	78.600	% Recov	72.000	120.000				09/10/07
SURR	2-Fluorobiphenyl(Surr)	321-60-8	8870.3	92.800	% Recov	66.000	122.000				09/10/07
SURR	Nitrobenzene-d5(Surr)	4165-60-0	7377.3	77.200	% Recov	63.000	125.000				09/10/07
SURR	Phenol-d5(Surr)	4165-62-2	7400.8	77.400	% Recov	66.000	124.000				09/10/07
SURR	2,4,6-Tribromophenol(Surr)	118-79-6	9523.9	99.600	% Recov	49.000	120.000				09/10/07
SURR	Terphenyl-d14(Surr)	98904-43-9	8178.2	85.600	% Recov	58.000	128.000				09/10/07
Lab ID: W07GR02290											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	1,2,4-Trichlorobenzene	120-82-1	5536.7	79.400	% Recov	75.000	121.000				09/10/07
MS	1,4-Dichlorobenzene	106-46-7	5551.0	79.600	% Recov	68.000	121.000				09/10/07
MS	2,4-Dinitrotoluene	121-14-2	5317.1	76.300	% Recov	66.000	113.000				09/10/07
MS	2-Fluorophenol(Surr)	367-12-4	11386	81.700	% Recov	72.000	120.000				09/10/07
MS	Acenaphthene	83-32-9	5485.8	78.700	% Recov	69.000	125.000				09/10/07
MS	4-Chloro-3-methylphenol	59-50-7	7522.0	71.900	% Recov	68.000	116.000				09/10/07
MS	2-Chlorophenol	95-57-8	8309.7	79.500	% Recov	65.000	124.000				09/10/07
MS	N-Nitrosodi-n-dipropylamine	621-64-7	5107.2	73.300	% Recov	69.000	127.000				09/10/07
MS	2-Fluorobiphenyl(Surr)	321-60-8	13581	97.400	% Recov	66.000	122.000				09/10/07
MS	Phenol	108-95-2	8466.0	81.000	% Recov	71.000	122.000				09/10/07
MS	Nitrobenzene-d5(Surr)	4165-60-0	10077	72.300	% Recov	63.000	125.000				09/10/07
MS	4-Nitrophenol	100-02-7	6361.6	60.800	% Recov	55.000	113.000				09/10/07
MS	Pentachlorophenol	87-86-5	6551.3	62.600	% Recov	50.000	113.000				09/10/07
MS	Phenol-d5(Surr)	4165-62-2	11062	79.300	% Recov	66.000	124.000				09/10/07
MS	Pyrene	129-00-0	5739.5	82.300	% Recov	67.000	125.000				09/10/07
MS	2,4,6-Tribromophenol(Surr)	118-79-6	11418	81.900	% Recov	49.000	120.000				09/10/07
MS	Terphenyl-d14(Surr)	98904-43-9	12418	89.100	% Recov	58.000	128.000				09/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071507
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 08/28/07
Receive Date:08/28/07

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	5599.6	80.600	% Recov	75.000	121.000				09/10/07
MSD	1,4-Dichlorobenzene	106-46-7	5688.0	81.800	% Recov	68.000	121.000				09/10/07
MSD	2,4-Dinitrotoluene	121-14-2	5663.4	81.500	% Recov	66.000	113.000				09/10/07
MSD	2-Fluorophenol(Surr)	367-12-4	11274	81.100	% Recov	72.000	120.000				09/10/07
MSD	Acenaphthene	83-32-9	5696.4	81.900	% Recov	69.000	125.000				09/10/07
MSD	4-Chloro-3-methylphenol	59-50-7	7619.1	73.100	% Recov	68.000	116.000				09/10/07
MSD	2-Chlorophenol	95-57-8	8650.9	83.000	% Recov	65.000	124.000				09/10/07
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	5171.5	74.400	% Recov	69.000	127.000				09/10/07
MSD	2-Fluorobiphenyl(Surr)	321-60-8	13710	98.600	% Recov	66.000	122.000				09/10/07
MSD	Phenol	108-95-2	8550.2	82.000	% Recov	71.000	122.000				09/10/07
MSD	Nitrobenzene-d5(Surr)	4165-60-0	10085	72.500	% Recov	63.000	125.000				09/10/07
MSD	4-Nitrophenol	100-02-7	6528.0	62.600	% Recov	55.000	113.000				09/10/07
MSD	Pentachlorophenol	87-86-5	6507.6	62.400	% Recov	50.000	113.000				09/10/07
MSD	Phenol-d5(Surr)	4165-62-2	11177	80.400	% Recov	66.000	124.000				09/10/07
MSD	Pyrene	129-00-0	6087.6	87.600	% Recov	67.000	125.000				09/10/07
MSD	2,4,6-Tribromophenol(Surr)	118-79-6	11801	84.900	% Recov	49.000	120.000				09/10/07
MSD	Terphenyl-d14(Surr)	98904-43-9	12659	91.100	% Recov	58.000	128.000				09/10/07
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	80.600		RPD			1.500	20.000		09/10/07
SPK-RPD	1,4-Dichlorobenzene	106-46-7	81.800		RPD			2.726	20.000		09/10/07
SPK-RPD	2,4-Dinitrotoluene	121-14-2	81.500		RPD			6.591	20.000		09/10/07
SPK-RPD	2-Fluorophenol(Surr)	367-12-4	81.100		RPD			0.737	20.000		09/10/07
SPK-RPD	Acenaphthene	83-32-9	81.900		RPD			3.985	20.000		09/10/07
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	73.100		RPD			1.655	20.000		09/10/07
SPK-RPD	2-Chlorophenol	95-57-8	83.000		RPD			4.308	20.000		09/10/07
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	74.400		RPD			1.490	20.000		09/10/07
SPK-RPD	2-Fluorobiphenyl(Surr)	321-60-8	98.600		RPD			1.224	20.000		09/10/07
SPK-RPD	Phenol	108-95-2	82.000		RPD			1.227	20.000		09/10/07
SPK-RPD	Nitrobenzene-d5(Surr)	4165-60-0	72.500		RPD			0.276	20.000		09/10/07
SPK-RPD	4-Nitrophenol	100-02-7	62.600		RPD			2.917	20.000		09/10/07
SPK-RPD	Pentachlorophenol	87-86-5	62.400		RPD			0.320	20.000		09/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071507
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 08/28/07
Receive Date:08/28/07

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	80.400		RPD			1.378	20.000		09/10/07
SPK-RPD	Pyrene	129-00-0	87.600		RPD			6.239	20.000		09/10/07
SPK-RPD	2,4,6-Tribromophenol(Surr)	118-79-6	84.900		RPD			3.597	20.000		09/10/07
SPK-RPD	Terphenyl-d14(Surr)	98904-43-9	91.100		RPD			2.220	20.000		09/10/07

BATCH QC

BLANK	1,2,4-Trichlorobenzene	120-82-1	< 140	n/a	ug/Kg					U	09/10/07
BLANK	1,4-Dichlorobenzene	106-46-7	< 240	n/a	ug/Kg					U	09/10/07
BLANK	2,4-Dinitrotoluene	121-14-2	< 140	n/a	ug/Kg					U	09/10/07
BLANK	2-Fluorophenol(Surr)	367-12-4	9410.3	84.000	% Recov	72.000	120.000				09/10/07
BLANK	Acenaphthene	83-32-9	< 140	n/a	ug/Kg					U	09/10/07
BLANK	4-Chloro-3-methylphenol	59-50-7	< 140	n/a	ug/Kg					U	09/10/07
BLANK	2-Chlorophenol	95-57-8	< 140	n/a	ug/Kg					U	09/10/07
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 140	n/a	ug/Kg					U	09/10/07
BLANK	2-Fluorobiphenyl(Surr)	321-60-8	12174	109.000	% Recov	66.000	122.000				09/10/07
BLANK	Phenol	108-95-2	< 140	n/a	ug/Kg					U	09/10/07
BLANK	Nitrobenzene-d5(Surr)	4165-60-0	9540.9	85.200	% Recov	63.000	125.000				09/10/07
BLANK	4-Nitrophenol	100-02-7	< 200	n/a	ug/Kg					U	09/10/07
BLANK	Pentachlorophenol	87-86-5	< 200	n/a	ug/Kg					U	09/10/07
BLANK	Phenol-d5(Surr)	4165-62-2	9006.7	80.400	% Recov	66.000	124.000				09/10/07
BLANK	Pyrene	129-00-0	< 140	n/a	ug/Kg					U	09/10/07
BLANK	Tributyl phosphate	126-73-8	< 140	n/a	ug/Kg					U	09/10/07
BLANK	2,4,6-Tribromophenol(Surr)	118-79-6	12759	114.000	% Recov	49.000	120.000				09/10/07
BLANK	Terphenyl-d14(Surr)	98904-43-9	11354	101.000	% Recov	58.000	128.000				09/10/07
LCS	1,2,4-Trichlorobenzene	120-82-1	4345.9	109.000	% Recov	76.000	118.000				09/10/07
LCS	1,4-Dichlorobenzene	106-46-7	4337.6	108.000	% Recov	68.000	121.000				09/10/07
LCS	2,4-Dinitrotoluene	121-14-2	4311.1	108.000	% Recov	68.000	112.000				09/10/07
LCS	2-Fluorophenol(Surr)	367-12-4	9030.9	94.100	% Recov	50.000	110.000				09/10/07
LCS	Acenaphthene	83-32-9	4459.9	111.000	% Recov	75.000	121.000				09/10/07
LCS	4-Chloro-3-methylphenol	59-50-7	5148.8	85.800	% Recov	68.000	117.000				09/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071507
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	2-Chlorophenol	95-57-8	6480.6	108.000	% Recov	84.000	114.000				09/10/07
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	4073.4	102.000	% Recov	76.000	119.000				09/10/07
LCS	2-Fluorobiphenyl(Surr)	321-60-8	10501	109.000	% Recov	58.000	109.000				09/10/07
LCS	Phenol	108-95-2	6082.7	101.000	% Recov	80.000	113.000				09/10/07
LCS	Nitrobenzene-d5(Surr)	4165-60-0	8816.1	91.800	% Recov	60.000	118.000				09/10/07
LCS	4-Nitrophenol	100-02-7	5989.1	99.800	% Recov	42.000	123.000				09/10/07
LCS	Pentachlorophenol	87-86-5	5930.0	98.800	% Recov	55.000	120.000				09/10/07
LCS	Phenol-d5(Surr)	4165-62-2	8407.3	87.600	% Recov	59.000	116.000				09/10/07
LCS	Pyrene	129-00-0	4389.5	110.000	% Recov	67.000	122.000				09/10/07
LCS	2,4,6-Tribromophenol(Surr)	118-79-6	9916.6	103.000	% Recov	60.000	120.000				09/10/07
LCS	Terphenyl-d14(Surr)	98904-43-9	9614.6	100.000	% Recov	60.000	120.000				09/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071507
Matrix: SOLID
Test: NWTPH-D TPH Diesel Range (Wa)

Sample Date: 08/22/07
Receive Date:08/22/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02243											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	ortho-Terphenyl Surr	84-15-1	20916	97.000	% Recov	70.000	130.000				09/05/07
MS	Total Pet. Hydrocarbons Diesel	TPHDIESEL	107800	100.000	% Recov	75.000	125.000				09/05/07
MSD	ortho-Terphenyl Surr	84-15-1	19453	88.800	% Recov	70.000	130.000				09/05/07
MSD	Total Pet. Hydrocarbons Diesel	TPHDIESEL	94707	86.500	% Recov	75.000	125.000				09/05/07
SPK-RPD	ortho-Terphenyl Surr	84-15-1	88.800		RPD			8.827	20.000		09/05/07
SPK-RPD	Total Pet. Hydrocarbons Diesel	TPHDIESEL	86.500		RPD			14.477	20.000		09/05/07
SURR	ortho-Terphenyl Surr	84-15-1	19492	89.600	% Recov	70.000	130.000				09/05/07
BATCH QC											
BLANK	Kerosene	TPHKEROSENE	< 3000	n/a	ug/Kg					U	09/05/07
BLANK	ortho-Terphenyl Surr	84-15-1	15950	79.800	% Recov	70.000	130.000				09/05/07
BLANK	Total Pet. Hydrocarbons Diesel	TPHDIESEL	< 3000	n/a	ug/Kg					U	09/05/07
LCS	ortho-Terphenyl Surr	84-15-1	17192	86.000	% Recov	70.000	130.000				09/05/07
LCS	Total Pet. Hydrocarbons Diesel	TPHDIESEL	86288	86.300	% Recov	80.000	120.000				09/05/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071507
Matrix: SOLID
Test: NWTPH-GX TPH Gasoline Range

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

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02213											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Total Pet. Hydrocarbons Gas	TPHGASOLINE	<250		RPD			n/a	20.000	U	08/29/07
MS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	4200	87.500	% Recov	50.000	150.000				08/29/07
MSD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	4500	90.000	% Recov	50.000	150.000				08/29/07
SPK-RPD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	90.000		RPD			2.817	20.000		08/29/07
BATCH QC											
BLANK	Total Pet. Hydrocarbons Gas	TPHGASOLINE	<250	n/a	mg/L	0.000	300.000			U	08/29/07
LCS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	4200	84.000	% Recov	85.000	115.000				08/29/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071507
Matrix: SOLID
Test: VOA Ground Water Protection

Sample Date: 08/22/07
Receive Date:08/22/07

Lab ID: W07GR02244
BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	1,1-Dichloroethene	75-35-4	20.280	87.700	% Recov	63.000	117.000				09/05/07
MS	Benzene	71-43-2	20.040	86.700	% Recov	75.000	129.000				09/05/07
MS	4-Bromofluorobenzene(Surr)	460-00-4	44.920	97.100	% Recov	84.000	116.000				09/05/07
MS	Chlorobenzene	108-90-7	22.380	96.800	% Recov	79.000	119.000				09/05/07
MS	1,2-Dichloroethane-d4(Surr)	17060-07-0	42.800	92.600	% Recov	82.000	136.000				09/05/07
MS	Toluene-d8(Surr)	2037-26-5	55.810	121.000	% Recov	89.000	119.000				09/05/07
MS	Toluene	108-88-3	23.910	103.000	% Recov	76.000	120.000				09/05/07
MS	Trichloroethene	79-01-6	20.790	89.900	% Recov	73.000	123.000				09/05/07
MSD	1,1-Dichloroethene	75-35-4	20.140	87.100	% Recov	63.000	117.000				09/05/07
MSD	Benzene	71-43-2	24.480	106.000	% Recov	75.000	129.000				09/05/07
MSD	4-Bromofluorobenzene(Surr)	460-00-4	39.610	85.700	% Recov	84.000	116.000				09/05/07
MSD	Chlorobenzene	108-90-7	25.710	111.000	% Recov	79.000	119.000				09/05/07
MSD	1,2-Dichloroethane-d4(Surr)	17060-07-0	40.080	86.700	% Recov	82.000	136.000				09/05/07
MSD	Toluene-d8(Surr)	2037-26-5	42.140	91.100	% Recov	89.000	119.000				09/05/07
MSD	Toluene	108-88-3	25.050	108.000	% Recov	76.000	120.000				09/05/07
MSD	Trichloroethene	79-01-6	25.410	110.000	% Recov	73.000	123.000				09/05/07
SPK-RPD	1,1-Dichloroethene	75-35-4	87.100		RPD			0.686	20.000		09/05/07
SPK-RPD	Benzene	71-43-2	106.000		RPD			20.031	20.000 *		09/05/07
SPK-RPD	4-Bromofluorobenzene(Surr)	460-00-4	85.700		RPD			12.473	20.000		09/05/07
SPK-RPD	Chlorobenzene	108-90-7	111.000		RPD			13.667	20.000		09/05/07
SPK-RPD	1,2-Dichloroethane-d4(Surr)	17060-07-0	86.700		RPD			6.581	20.000		09/05/07
SPK-RPD	Toluene-d8(Surr)	2037-26-5	91.100		RPD			28.194	20.000 *		09/05/07
SPK-RPD	Toluene	108-88-3	108.000		RPD			4.739	20.000		09/05/07
SPK-RPD	Trichloroethene	79-01-6	110.000		RPD			20.110	20.000 *		09/05/07
SURR	4-Bromofluorobenzene(Surr)	460-00-4	63.390	98.200	% Recov	71.000	125.000				09/05/07
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	53.640	83.100	% Recov	80.000	134.000				09/05/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071507
Matrix: SOLID
Test: VOA Ground Water Protection

Sample Date: 08/22/07
Receive Date:08/22/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SURR	Toluene-d8(Surr)	2037-26-5	69.460	108.000	% Recov	80.000	126.000				09/05/07
BATCH QC											
BLANK	1,1-Dichloroethane	75-34-3	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	1,1,1-Trichloroethane	71-55-6	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	1,1,2-Trichloroethane	79-00-5	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	1,1-Dichloroethene	75-35-4	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	1,2-Dichloroethane	107-06-2	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	1,2-Dichloroethene(Total)	540-59-0	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	1-Butanol	71-36-3	< 100	n/a	ug/Kg					U	09/05/07
BLANK	2-Hexanone	591-78-6	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	4-Methyl-2-Pentanone	108-10-1	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	Acetone	67-64-1	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	Bromodichloromethane	75-27-4	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	4-Bromofluorobenzene(Surr)	460-00-4	49.000	98.000	% Recov	71.000	125.000				09/05/07
BLANK	Bromoform	75-25-2	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	n-Butylbenzene	104-51-8	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	Carbon disulfide	75-15-0	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	Carbon tetrachloride	56-23-5	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	Dibromochloromethane	124-48-1	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	Chloroform	67-66-3	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	cis-1,2-Dichloroethylene	156-59-2	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	cis-1,3-Dichloropropene	10061-01-5	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	Chloroethane	75-00-3	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	1,2-Dichloroethane-d4(Surr)	17060-07-0	42.040	84.100	% Recov	80.000	134.000				09/05/07
BLANK	trans-1,2-Dichloroethylene	156-60-5	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	1,2-Dichloropropane	78-87-5	< 1.0	n/a	ug/Kg					U	09/05/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071507
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	Ethylbenzene	100-41-4	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	Bromomethane	74-83-9	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	Chloromethane	74-87-3	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	2-Butanone	78-93-3	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	Methylenechloride	75-09-2	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	Tetrachloroethene	127-18-4	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	Styrene	100-42-5	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	Xylenes (total)	1330-20-7	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	Toluene-d8(Surr)	2037-26-5	52.660	105.000	% Recov	80.000	126.000				09/05/07
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	trans-1,3-Dichloropropene	10061-02-6	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	Trichloroethene	79-01-6	< 1.0	n/a	ug/Kg					U	09/05/07
BLANK	Vinyl chloride	75-01-4	< 1.0	n/a	ug/Kg					U	09/05/07
LCS	1,1-Dichloroethene	75-35-4	20.420	81.700	% Recov	70.000	130.000				09/05/07
LCS	Benzene	71-43-2	19.190	76.800	% Recov	70.000	130.000				09/05/07
LCS	4-Bromofluorobenzene(Surr)	460-00-4	47.550	95.100	% Recov	71.000	125.000				09/05/07
LCS	Chlorobenzene	108-90-7	24.240	97.000	% Recov	70.000	130.000				09/05/07
LCS	1,2-Dichloroethane-d4(Surr)	17060-07-0	45.670	91.300	% Recov	80.000	134.000				09/05/07
LCS	Toluene-d8(Surr)	2037-26-5	54.360	109.000	% Recov	80.000	126.000				09/05/07
LCS	Toluene	108-88-3	24.610	98.400	% Recov	70.000	130.000				09/05/07
LCS	Trichloroethene	79-01-6	19.400	77.600	% Recov	70.000	130.000				09/05/07

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F07-043
Sample # W07GR02243
Client ID: B1NRJ1 TRENT WSCF

Matrix: SOIL

Group #: WSCF20071507
Department: Radiochemistry
Sampled: 08/22/07
Received: 08/22/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Americium by AEA											
Americium-241	14596-10-2	LA-508-471	U	0.0130	pCi/g	+-0.0120	pCi/g	1.00	0.017		09/12/07
Am-243 tracer by AEA	AM243	LA-508-471		3.50	pCi/g			1.00	9.3e-03		09/12/07
Gamma Energy Analysis-grd H2O											
Cobalt-60	10198-40-0	LA-508-481	U	2.37e-03	pCi/g	+-5.38e-03	pCi/g	1.00	9.2e-03		08/29/07
Cesium-137	10045-97-3	LA-508-481	U	-8.29e-03	pCi/g	+-8.29e-03	pCi/g	1.00	8.6e-03		08/29/07
Europium-152	14683-23-9	LA-508-481	U	0.0104	pCi/g	+-0.0198	pCi/g	1.00	0.026		08/29/07
Europium-154	15585-10-1	LA-508-481	U	5.18e-04	pCi/g	+-5.18e-03	pCi/g	1.00	0.028		08/29/07
Europium-155	14391-16-3	LA-508-481	U	0.0249	pCi/g	+-0.0256	pCi/g	1.00	0.043		08/29/07
Plutonium Isotopics by AEA											
Plutonium-238	13981-16-3	LA-508-471	U	-5.90e-03	pCi/g	+-0.0326	pCi/g	1.00	0.058		09/12/07
Pu-239/240 by AEA	PU-239/240	LA-508-471	U	-4.40e-03	pCi/g	+-6.64e-03	pCi/g	1.00	0.018		09/12/07
Pu-242 tracer by AEA	PU242	LA-508-471		5.50	pCi/g			1.00	4.0e-03		09/12/07
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415	U	0.140	pCi/g	+-0.752	pCi/g	1.00	0.33		09/04/07
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		97.1	Percent			1.00	0.0		09/04/07
Uranium Isotopics by AEA											
Uranium-233/234	U-233/234	LA-508-471		0.110	pCi/g	+-0.0385	pCi/g	1.00	4.3e-03		09/11/07
Uranium-235	15117-96-1	LA-508-471		0.0120	pCi/g	+-9.60e-03	pCi/g	1.00	4.6e-03		09/11/07
Uranium-238	U-238	LA-508-471		0.110	pCi/g	+-0.0385	pCi/g	1.00	4.3e-03		09/11/07
U-232 tracer by AEA	U232	LA-508-471		3.70	pCi/g			1.00	0.039		09/11/07

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

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

D - Analyte was identified at a secondary dilution factor(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 F07-043 :F07-043

Group #: WSCF20071507
Department: Radiochemistry

Sample #	Client ID		Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	AC-228				0.50	pCi/g
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	AC-228 Count Error				19	%
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	BI-212				0.31	pCi/g
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	BI-212 Count Error				27	%
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	BI-214				0.51	pCi/g
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	BI-214 Count Error				14	%
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	CS-134				0.025	pCi/g
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	CS-134 Count Error				40	%
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	K-40				13	pCi/g
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	K-40 Count Error				13	%
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	PB-212				0.49	pCi/g
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	PB-212 Count Error				10	%
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	PB-214				0.63	pCi/g
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	PB-214 Count Error				24	%
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	RA-226				0.38	pCi/g
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	RA-226 Count Error				18	%
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	RA-228				0.43	pCi/g
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	RA-228 Count Error				18	%
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	SN-126				0.098	pCi/g
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	SN-126 Count Error				25	%
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	TL-208				0.14	pCi/g
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	TL-208 Count Error				16	%
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	U-235				0.061	pCi/g
W07GR02243	B1NRJ1	TRENT	Gamma Energy Analysis-grd H2O	U-235 Count Error				33	%

RQ=Result Qualifier

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Radiochemistry**

SDG Number: WSCF20071507
Matrix: SOLID
Test: Gamma Energy Analysis-grd H2O

Sample Date: 08/22/07
Receive Date:08/22/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02243											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Cobalt-60	10198-40-0	U-4.463e-3		RPD			n/a	20.000		08/30/07
DUP	Cesium-137	10045-97-3	U-4.961e-3		RPD			n/a	20.000		08/30/07
DUP	Europium-152	14683-23-9	U-3.989e-2		RPD			n/a	20.000		08/30/07
DUP	Europium-154	15585-10-1	U-3.027e-2		RPD			n/a	20.000		08/30/07
DUP	Europium-155	14391-16-3	U3.123e-2		RPD			n/a	20.000		08/30/07
BATCH QC											
BLANK	Cobalt-60	10198-40-0	U7.82e-4	n/a	pCi/g	-10.000	1000.000				08/29/07
BLANK	Cesium-137	10045-97-3	U-6.059e-3	n/a	pCi/g	-10.000	1000.000				08/29/07
BLANK	Europium-152	14683-23-9	U5.117e-3	n/a	pCi/g	-10.000	1000.000				08/29/07
BLANK	Europium-154	15585-10-1	U7.758e-3	n/a	pCi/g	-10.000	1000.000				08/29/07
BLANK	Europium-155	14391-16-3	U-8.365e-3	n/a	pCi/g	-10.000	1000.000				08/29/07
LCS	Cobalt-60	10198-40-0	10430	104.930	% Recov	80.000	120.000				08/31/07
LCS	Cesium-137	10045-97-3	6328	104.768	% Recov	80.000	120.000				08/31/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Radiochemistry**

SDG Number: WSCF20071507
Matrix: SOLID
Test: Americium by AEA

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

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02087											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Americium-241	14596-10-2	1.4e-2		RPD			98.182	20.000	*	09/12/07
DUP	Am-243 tracer by AEA	AM243	3.842	96.790	% Recov	30.000	105.000				09/12/07
Lab ID: W07GR02243											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Am-243 tracer by AEA	AM243	3.523	105.940	% Recov	30.000	105.000			*	09/12/07
BATCH QC											
BLANK	Americium-241	14596-10-2	2.7e-2	0.027	pCi/g	-10.000	1000.000				09/12/07
BLANK	Am-243 tracer by AEA	AM243	3.995	86.960	% Recov	30.000	105.000				09/12/07
LCS	Americium-241	14596-10-2	11.64	98.228	% Recov	80.000	120.000				09/12/07
LCS	Am-243 tracer by AEA	AM243	11.09	92.620	% Recov	30.000	105.000				09/12/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Radiochemistry**

SDG Number: WSCF20071507
Matrix: SOLID
Test: Plutonium Isotopics by AEA

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

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02087											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Plutonium-238	13981-16-3	U-1.3e-2		RPD			n/a	20.000		09/12/07
DUP	Pu-239/240 by AEA	PU-239/240	U5e-3		RPD			n/a	20.000		09/12/07
DUP	Pu-242 tracer by AEA	PU242	5.998	97.780	% Recov	30.000	105.000				09/12/07
Lab ID: W07GR02243											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Pu-242 tracer by AEA	PU242	5.501	100.800	% Recov	30.000	105.000				09/12/07
BATCH QC											
BLANK	Plutonium-238	13981-16-3	U-8e-3	n/a	pCi/g	-10.000	1000.000				09/12/07
BLANK	Pu-239/240 by AEA	PU-239/240	U4.8e-3	n/a	pCi/g	-10.000	1000.000				09/12/07
BLANK	Pu-242 tracer by AEA	PU242	6.238	96.830	% Recov	30.000	105.000				09/12/07
LCS	Pu-239/240 by AEA	PU-239/240	12.32	95.913	% Recov	80.000	120.000				09/12/07
LCS	Pu-242 tracer by AEA	PU242	17.31	93.560	% Recov	30.000	105.000				09/12/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Radiochemistry**

SDG Number: WSCF20071507
Matrix: SOLID
Test: Strontium 89/90

Sample Date: 08/22/07
Receive Date:08/22/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02243											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Sr-85 Tracer by Beta Counting	SR85	99.3	99.300	% Recov	30.000	105.000				09/04/07
DUP	Strontium-89/90	SR-RAD	3.37e-01		RPD			n/a	20.000		09/04/07
SURR	Sr-85 Tracer by Beta Counting	SR85	97.1	97.100	% Recov	30.000	105.000				09/04/07
BATCH QC											
BLANK	Sr-85 Tracer by Beta Counting	SR85	96.6	96.600	% Recov	30.000	105.000				09/04/07
BLANK	Strontium-89/90	10098-97-2	U-1.7E-01	n/a	pCi/g	-10.000	300.000				09/04/07
LCS	Sr-85 Tracer by Beta Counting	SR85	92.9	92.900	% Recov	30.000	105.000				09/04/07
LCS	Strontium-89/90	10098-97-2	87.3	104.802	% Recov	80.000	120.000				09/04/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20071507
Matrix: SOLID
Test: Uranium Isotopics by AEA

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

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02087											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	U-232 tracer by AEA	U232	4.001	94.830	% Recov	30.000	105.000				09/11/07
DUP	Uranium-233/234	U-233/234	0.16		RPD			11.765	20.000		09/11/07
DUP	Uranium-235	15117-96-1	U1.3e-2		RPD			n/a	20.000		09/11/07
DUP	Uranium-238	U-238	0.18		RPD			5.714	20.000		09/11/07
Lab ID: W07GR02243											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	U-232 tracer by AEA	U232	3.67	94.220	% Recov	30.000	105.000				09/11/07
BATCH QC											
BLANK	U-232 tracer by AEA	U232	4.161	84.040	% Recov	30.000	105.000				09/11/07
BLANK	Uranium-233/234	13966-29-5	U7.3e-3	n/a	pCi/g	-10.000	1000.000				09/11/07
BLANK	Uranium-235	15117-96-1	U1.8e-03	n/a	pCi/g	-10.000	1000.000				09/11/07
BLANK	Uranium-238	24678-82-8	U9.2e-3	n/a	pCi/g	-10.000	1000.000				09/11/07
LCS	U-232 tracer by AEA	U232	11.55	86.320	% Recov	30.000	105.000				09/11/07
LCS	Uranium-233/234	13966-29-5	N/A	n/a	% Recov	75.000	125.000				09/11/07
LCS	Uranium-235	15117-96-1	N/A	n/a	% Recov	75.000	125.000				09/11/07
LCS	Uranium-238	24678-82-8	20.16	106.357	% Recov	80.000	120.000				09/11/07

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F07-043

Group #: WSCF20071507
Department: Radiochemistry

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-MS: Copper prep blank 0.230--above the MDL but less than 5% of the sample result. No flag Organics: All results are moisture corrected and reported on a dry weight basis. cgc PCB: CCVs high and MS/MSD biased high. Not a problem since no target hits in the samples for this batch. gar TPHG-WA: Possible poor purge of LCS, which is marked as low at 84.29 % recovery. gar Am241 batch dup is flagged for poor RPD but the sample activity is low level. RPD does not apply to low level samples. lmh VOA: One surrogate Toluene-d8 out high in the MS at 121.% Recovery. The Spike RPDs were high for Trichlorobenzene, Benzene, and Toluene-d8. gar Am-243 tracer recovery is slightly out of limits. Since all the other tracer recoveries came out fine, this batch has been approved. lmh

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

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M4W41-SLF-07-704

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 5 pages
Including cover page

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

File

10/04/07

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program

Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 122868/ES3
Group#: 20071507
Project#: F07-043
Proj Mgr: Steve Trent
Phone: 373-5869

The following samples were received from you on 08/22/07. 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
W07GR02243	B1NRJ1	TRENT @2008 @AEA-30 @AEA-31 @AEA-32 @GEA-GPP @IC-30 @PCBGPP @SR89_90 @SVOCGPP @TPHD-WA @TPHG CN-02 PERSOLID	Solid, or handle as if solid	08/22/07
W07GR02244	B1NRF8	TRENT @VOA-GPP	Solid, or handle as if solid	08/22/07
~~W07GR02245~~	~~B1NRF9~~	~~TRENT~~ ~~@VOA-GPP~~ PBG P.D. Mix 10/3/2007	~~Solid, or handle as if solid~~	~~08/22/07~~

Test Acronym Description

Test Acronym	Description
@2008	ICP-200.8 MS All possible meta
@AEA-30	Plutonium Isotopics by AEA
@AEA-31	Americium by AEA
@AEA-32	Uranium Isotopics by AEA
@GEA-GPP	Gamma Energy Analysis-grd H2O
@IC-30	Anions by Ion Chromatography
@PCBGPP	PCBs complete list
@SR89_90	Strontium 89/90
@SVOCGPP	SW-846 8270C Semi-Vols
@TPHD-WA	NWTPH-D TPH Diesel Range (Wa)
@TPHG-WA	NWTPH-GX TPH Gasoline Range
@VOA-GPP	VOA Ground Water Protection
CN-02	Cyanide by Midi/Spectrophotom
PERSOLID	Percent Solids

Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F07-043-063

COLLECTOR Pope/Pfister/Mokler	**COMPANY CONTACT** Trent, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8N	**DATA TURNAROUND** 45 Days / 45 Days		
SAMPLING LOCATION C5515, I-132 317'-319.5'	**PROJECT DESIGNATION** 216-A-2 and 216-A-21 Characterization Sampling and Analysis - Soil	**SAF NO.** F07-043	**AIR QUALITY** ☐
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**COA** 122868 ES3	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegitation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that 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	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None			
TYPE OF CONTAINER		aG	aG	G/P	aG	aG	aG	Square Bottle - Poly			
NO. OF CONTAINER(S)		1	1	1	1	1	1	1			
VOLUME		120mL	40mL	120mL	120mL	120mL	120mL	500mL			
SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	TPH-Gasoline Range - WTPH-G;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	PCBs - 8082;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	Cyanide (Total) - 335.2;	SEE ITEM (4) IN SPECIAL INSTRUCTIONS			
SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**								
B1NRJ1 W076R02243	SOIL	8.22.07	1310	X	X	X	X	X	X	X	
		LOT#		024875	6215060					575331	

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J Pope/ [signature] 8.22.07	1410	TA Frazier [signature] 8/22/07	1410

SPECIAL INSTRUCTIONS

(1)Semi-VOA - 8270B (Add-On) {Tributyl phosphate} TPH-Diesel Range - WTPH-D; (2)ICP/MS - 200.8 (TAL) {Barium, Cadmium, Chromium, Copper, Silver} ICP/MS - 200.8 (Add-on) {Arsenic, Lead, Selenium, Uranium} 200.8_HG - ICPMS; (3)IC Anions - 300.0 {Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorus in phosphate, Sulfate}
(4)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155} Americium-241; Isotopic Plutonium; Isotopic Uranium; Strontium-89,90 -- Total Sr;

ICED
Initial
Date

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

A-6003-618(01/06)

Fluor Hanford Inc. 10/04/07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F07-043-061 | PAGE 1 OF 1

COLLECTOR Pope/Pfister/Mokler 20071507	**COMPANY CONTACT** Trent, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION C5515, I-132 317' - 319.5'	**PROJECT DESIGNATION** 216-A-2 and 216-A-21 Characterization Sampling and Analysis - Soil		**SAF NO.** F07-043
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**COA** 122868 ES3	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N

AIR QUALITY ☐

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	Frozen	Cool 4C
TYPE OF CONTAINER	aGs*	aGs*
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		
B1NRF8 2244	SOIL	8-22-07	1310	X	X
			Lot #	6215060	

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J. Pope / [signature] 8-22-07	1410	TA Frazier, [signature] 8/22/07	1410

SPECIAL INSTRUCTIONS
(1)VOA - 5035/8260 (LOW LEVEL); VOA - 5035/8260 (LOW LEVEL) - (Add-On) {1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene}
(2)VOA - 5035/8260 (HIGH LEVEL); VOA - 5035/8260 (HIGH LEVEL) - (Add-On) {1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene}

ICED
Initial
Date

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 | F07-043-062 | PAGE 1 OF 1

COLLECTOR Pope/Pfister/Mokler	**COMPANY CONTACT** Trent, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION C5515, I-132 317' - 319.5'	**PROJECT DESIGNATION** 216-A-2 and 216-A-21 Characterization Sampling and Analysis - Soil		**SAF NO.** F07-043
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**COA** 122868 ES3	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N

AIR QUALITY ☐

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 4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B1NRF9 224S	SOIL	8-22-07	1310	X
			Lot #	6215060

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J.S. Pope / [signature] 8-22-07	1410	TA Frazier [signature] 8/22/07	1410

SPECIAL INSTRUCTIONS
(1)VOA - 5035/8260 (TCL); VOA - 5035/8260 - (Add-On) {1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene}

ICED
Initial
Date

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

A-6003-618(01/06)

M4W41-SLF-07-704

ATTACHMENT 5

SAMPLE RECORD SHEET

Consisting of 2 pages
Including cover page

A-2 borehole I-132 Depth 317.0' - 319.5'

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
B1NRF8	K	31.6	38.3	6.7	---	---	---
B1NRF8	L	31.5	35.8	4.3	---	---	---
B1NRF8	M	31.4	37.4	6.0	---	---	---
B1NRF8	N	31.2	37.2	6.0	---	---	---
B1NRF8	P	31.4	36.5	5.1	---	---	---
B1NRF9		30.0	30.0	0.0	4.1	5.0	34.1
B1NRF8	W	30.3	35.8	5.5	5.6	7.0	41.4
B1NRF8	X	30.2	35.3	5.1	5.6	7.0	40.9
B1NRF8	Y	30.3	37.2	6.9	6.4	8.0	43.6

[1]Sample suffix of L, K, M, N and P relate to low-level concentration samples and will not
[2]Empty weight is to include all labels, stickers, bags, and anything else that will be
[3]Ensure that everything weighed for the empty bottle and no additional items (besides the
[4]Sample weight is the vial with sample minus the vial empty