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WSCF Laboratory Analytical Services
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FLUOR

Memorandum

W1141-SLF-04-245

To: S. J. Trent A0-21

Date: September 22, 2004

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

cc:

w/Attachments		w/o Attachments	
T. F. Dale	S3-28	D. J. Hart	S3-30
H. K. Meznarich	S3-30	M. A. Neely	S3-30
P. D. Mix	S3-30	H. S. Rich	S3-28
J. E. Trechter	S3-30	L. C. Swanson	E6-35
		File/LB	

Subject: FINAL RESULTS FOR 200-LW-1/LW-2 CHARACTERIZATION - SOIL – SAMPLE DELIVERY GROUP WSCF20041392 – SAF NUMBER F03-025

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

(2) HNF-SD-CD-QAPP-017, Rev. 6, Waste Sampling & Characterization Facility Quality Assurance Plan

This letter contains a narrative (Attachment 1) for sample delivery group WSCF20041392, the analytical results (Attachment 2), and the sample receipt information (Attachment 3).

SLF/grf

Attachments 3

RECEIVED
MAY 07 2012
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SEP 28 2004

W1141-SLF-04-245

ATTACHMENT 1

NARRATIVE

Consisting of 5 pages
Not including cover page

Sample Delivery Group	**WSCF20041392**
Sample Matrix	**SOLID**
Sample Visual	**N/A**
SAF Number	**F03-025**
Data Deliverable	**Summary Report**

Introduction

One (1) 200-LW-1/LW-2 Characterization - Soil sample (B191F0) was received at the WSCF Laboratory on August 10, 2004. The sample was 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.

The narrative (Attachment 1) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 2) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information. Copies of the chain of custody and Request for Sample Analysis forms are included as Attachment 3.

Analytical Methodology for Requested Analyses

- ICP-MS Metals by EPA Method 200.8. Analytical work was performed with no deviations to the approved method.
- Alcohols/Glycols by EPA Method 8015B. Analytical work was performed with no deviations to the approved method.
- ICP-AES Metals by EPA Method 6010. Analytical work was performed with no deviations to the approved method.
- Anions by EPA Method 300. Analytical work was performed with no deviations to the approved method.
- VOA by EPA Method 8260A. Analytical work was performed with no deviations to the approved method.
- PCBs EPA Method 8082 . Analytical work was performed with no deviations to the approved method.
- Semi-VOA by EPA Method 8270. Analytical work was performed with no deviations to the approved method.

- Ammonia by EPA Method 300.7. Analytical work was performed with no deviations to the approved method.

- Percent Solids by EPA Method 160.3. Analytical work was performed with no deviations to the approved method.

- Cyanide by EPA Method 9014. Analytical work was performed with no deviations to the approved method.

- pH by SW 846 Method 150.1. Analytical work was performed with no deviations to the approved method.

- TPH Diesel Range by WDOE Method NWTPH-D. Analytical work was performed with no deviations to the approved method.

- TPH Gasoline Range by WDOE Method NWTPH Gx. Analytical work was performed with no deviations to the approved method.

- All RadChem analyses (AEA (Plutonium, Americium, Uranium Isotopic, Neptunium) and GEA) were run by internal WDOE accredited WSCF procedures. Analytical work was performed with no deviations to the approved method.

Comments

ICP-MS Metals – The hold time for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See page 2-25 through 2-30 for QC details. All sample group 20041392 QC controls are within the established limits.

Alcohols/Glycols- The hold time for this analysis were met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 2-38 for QC details. All QC controls are within the established limits

ICP-AES Metals (Bismuth only) – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 2-33 for QC details. All QC controls are within the established limits.

Anions - The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See pages 2-16 through 2-17 for QC details. Analytical Note:

- Chloride and Nitrate – Sample results flagged B (Analytes are less than the Reporting Detection Limit, but greater than or equal to the Method Detection Limit.)

All QC controls are within the established limits.

VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 2-34 through 2-36 for QC details. Analytical Note:

- Results were corrected for percent moisture and reported in dry weight basis.

All QC controls are within the established limits.

PCB– The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See page 2-18. Analytical Note:

- Results were corrected for percent moisture and reported in dry weight basis.

All QC controls are within the established limits.

Semi-VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See page 2-20 through 2-24 for QC details. Analytical Note:

- Results were corrected for percent moisture and reported in dry weight basis.

All QC controls are within the established limits.

Ammonia - The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See page 2-31. All QC controls are within the established limits.

Percent Solids – Run for organic correction only.

Cyanide - The hold time for this analysis was met. A Blank, Preparation Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See page 2-15 for QC details. All QC controls are within the established limits.

pH - The hold time for this analysis was met. All Laboratory Checks are within the established limits.

TPHD-WA- The hold time for this analysis were met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 2-19 for QC details. Analytical Note:

- Results were corrected for percent moisture and reported in dry weight basis.

All QC controls are within the established limits.

TPHG-WA- The hold time for this analysis were met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 2-37. Analytical Note:

- Results were corrected for percent moisture and reported in dry weight basis.

All QC controls are within the established limits.

RadChem – There are no hold times associated with these WDOE accredited methods. A Blank, Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 2-32, 2-39 through 2-42 for QC details. Analytical Note:

- Neptunium – Laboratory Control Sample recovery was below established limits. Data was X (estimate) flagged.

All other QC controls are within the established limits.

Radiochemical Tracer Percent Recovery

Sample Number	Lab Sample ID	Isotope	Tracer Recovery (Percent)
BLANK		Pu-242	70.6
LCS		Pu-242	78.4
B191F0	W0401442	Pu-242	66.9
DUPLICATE	W0401442	Pu-242	68.8
BLANK		Am-243	90.6
LCS		Am-243	92.1
B191F0	W0401442	Am-243	84.7
DUPLICATE	W0401442	Am-243	94.1
BLANK		U-232	94.8
LCS		U-232	80.6
B191F0	W0401442	U-232	86.7
DUPLICATE	W0401442	U-232	93.1

This Summary Report is in compliance with the SOW, both technically and for completeness. Release of the data contained in this hard copy report has been authorized by the WSCF Laboratory Analytical Manager and Client Services, as verified by the following signature.

Herlene S. Rich
WSCF Production Control

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

W1141-SLF-04-245

ATTACHMENT 2

ANALYTICAL RESULTS

Consisting of 42 pages
Not including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical: _____

Client Services: _____

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

Confidentiality Notice: The information contained in this report is privileged and confidential information intended only for the use of the addressee. If the reader of this report is not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone at (509) 373-7020.

Contract#: FH-EIS-2003-MEM-001
Report#: WSCF20041392
Report Date: 20-sep-2004

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F03-025: F03-025

Group #: WSCF20041392

Sample #	Client ID			CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
Organic															
W040001442	B191F0	GRP	TRENT	107-21-1	Ethylene glycol	SOIL	Organics	U	< 5.00e+03	ug/kg	1.00	5.0e+03	08/23/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	08/23/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	12674-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 0.0530	mg/kg	1.00	0.053	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 0.110	mg/kg	1.00	0.11	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 0.0530	mg/kg	1.00	0.053	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 0.0530	mg/kg	1.00	0.053	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	12672-29-6	Aroclor-1248	SOIL	LA-523-427	U	< 0.0530	mg/kg	1.00	0.053	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 0.0530	mg/kg	1.00	0.053	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 0.0530	mg/kg	1.00	0.053	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 0.0530	mg/kg	1.00	0.053	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 0.0530	mg/kg	1.00	0.053	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 700	ug/kg	1.00	7.0e+02	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 340	ug/kg	1.00	3.4e+02	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 110	ug/kg	1.00	1.1e+02	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 320	ug/kg	1.00	3.2e+02	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 72.0	ug/kg	1.00	72	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	< 72.0	ug/kg	1.00	72	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 72.0	ug/kg	1.00	72	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 72.0	ug/kg	1.00	72	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 72.0	ug/kg	1.00	72	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 320	ug/kg	1.00	3.2e+02	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-456	U	< 72.0	ug/kg	1.00	72	08/19/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	79-01-6	Trichloroethene	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04

MDL = Minimum Detection Limit
RQ = Result Qualifier

B - The analyte < the RDL but > = the IDL/MDL (inorganic)
X - Other flags and notes described in the comments/narrative.
U - Analyzed for but not detected above limiting criteria.

DF = Dilution Factor

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F03-025: F03-025

Group #: WSCF20041392

Sample #	Client ID			CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W040001442	B191F0	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	100-42-5	Styrene	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	10061-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	10061-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	107-06-2	1,2-Dichloroethane	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	540-59-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	56-23-5	Carbon tetrachloride	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	591-78-6	2-Hexanone	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	67-64-1	Acetone	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	67-66-3	Chloroform	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	71-55-6	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	74-83-9	Bromomethane	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	74-87-3	Chloromethane	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	75-00-3	Chloroethane	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	75-25-2	Bromoform	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04

MDL = Minimum Detection Limit
RQ = Result Qualifier

B - The analyte < the RDL but > = the IDL/MDL (inorganic)
X - Other flags and notes described in the comments/narrative.
U - Analyzed for but not detected above limiting criteria.

DF = Dilution Factor

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F03-025: F03-025

Group #: WSCF20041392

Sample #	Client ID			CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W040001442	B191F0	GRP	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 1.90	ug/kg	1.00	1.9	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	71-36-3	1-Butanol	SOIL	LA-523-455	U	< 39.0	ug/kg	1.00	39	08/24/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 4.00e+03	ug/kg	1.00	4.0e+03	08/25/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 4.00e+03	ug/kg	1.00	4.0e+03	08/25/04	08/10/04	08/10/04

MDL=Minimum Detection Limit
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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F03-025: F03-025

Group #: WSCF20041392

Sample #	Client ID			CAS #	Test Performed	Matrix	WSCF Method	RQ		Result	Unit	DF	MDL	Analyze	Sample	Receive
Inorganic																
W040001442	B191F0	GRP	TRENT	57-12-5	Cyanide	SOIL	LA-695-402	U	<	0.200	mg/kg	1.00	0.20	08/17/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	NH4-N	Nitrogen in ammonium	SOIL	LA-503-401	U	<	0.196	mg/kg	49.00	0.20	08/30/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	TS	Total solids	SOIL	LA-519-412			92.4	%	1.00	0.0	08/11/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	PH	pH Measurement	SOIL	LA-212-411			9.12	pH	1.00	0.010	08/11/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	16984-48-8	Fluoride	SOIL	LA-533-410	U	<	1.13	mg/kg	49.00	1.1	08/17/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	16887-00-6	Chloride	SOIL	LA-533-410	B		2.82	mg/kg	49.00	2.5	08/17/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	NO2-N	Nitrogen in Nitrite	SOIL	LA-533-410	U	<	0.931	mg/kg	49.00	0.93	08/17/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	NO3-N	Nitrogen in Nitrate	SOIL	LA-533-410	B		1.67	mg/kg	49.00	0.64	08/17/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	14265-44-2	Phosphate	SOIL	LA-533-410	U	<	2.65	mg/kg	49.00	2.6	08/17/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	14808-79-8	Sulfate	SOIL	LA-533-410	U	<	4.90	mg/kg	49.00	4.9	08/17/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	7440-69-9	Bismuth	SOIL	LA-505-411	U	<	5.00	mg/kg	1.00	5.0	09/07/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	7440-02-0	Nickel	SOIL	LA-505-412			10.4	mg/kg	9.78	4.9	08/31/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	7440-22-4	Silver	SOIL	LA-505-412	U	<	1.96	mg/kg	9.78	2.0	08/31/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	7440-36-0	Antimony	SOIL	LA-505-412	U	<	4.89	mg/kg	9.78	4.9	08/31/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	7440-39-3	Barium	SOIL	LA-505-412			112	mg/kg	9.78	2.0	08/31/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	7440-41-7	Beryllium	SOIL	LA-505-412	U	<	2.93	mg/kg	9.78	2.9	08/31/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	7440-43-9	Cadmium	SOIL	LA-505-412	U	<	0.978	mg/kg	9.78	0.98	08/31/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	7440-47-3	Chromium	SOIL	LA-505-412			5.84	mg/kg	9.78	2.9	08/31/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	7440-50-8	Copper	SOIL	LA-505-412			14.5	mg/kg	9.78	4.9	08/31/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	7439-92-1	Lead	SOIL	LA-505-412	U	<	11.7	mg/kg	9.78	12	08/31/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	7439-97-6	Mercury	SOIL	LA-505-412	U	<	0.978	mg/kg	9.78	0.98	08/31/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	7440-61-1	Uranium	SOIL	LA-505-412	U	<	0.978	mg/kg	9.78	0.98	08/31/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	7440-38-2	Arsenic	SOIL	LA-505-412			6.70	mg/kg	9.78	2.9	08/31/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	7782-49-2	Selenium	SOIL	LA-505-412	U	<	2.93	mg/kg	9.78	2.9	08/31/04	08/10/04	08/10/04

MDL=Minimum Detection Limit
RQ=Result Qualifier

B - The analyte < the RDL but > = the IDL/MDL (inorganic)
X - Other flags and notes described in the comments/narrative.
U - Analyzed for but not detected above limiting criteria.

DF=Dilution Factor

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F03-025: F03-025

Group #: WSCF20041392

Sample #	Client ID			CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
Radiochemistry															
W040001442	B191F0	GRP	TRENT	14596-10-2	Americium-241	SOIL	LA-508-471	U	0.0240	pCi/g	1.00	0.048	09/14/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	E,T,C	Am-241 by AEA Total Cntg Error	SOIL	LA-508-471		+- 0.029	pCi/g	1.00	0.0	09/14/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	10198-40-0	Cobalt-60	SOIL	LA-508-481	U	-3.54e-03	pCi/g	1.00	0.010	08/30/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 5.9e-03	pCi/g	1.00	0.0	08/30/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	10045-97-3	Cesium-137	SOIL	LA-508-481	U	0.0103	pCi/g	1.00	0.011	08/30/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	E,T,C	Cs-137 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 6.9e-03	pCi/g	1.00	0.0	08/30/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	14683-23-9	Europium-152	SOIL	LA-508-481	U	-0.0187	pCi/g	1.00	0.031	08/30/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 0.019	pCi/g	1.00	0.0	08/30/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	15585-10-1	Europium-154	SOIL	LA-508-481	U	8.18e-03	pCi/g	1.00	0.032	08/30/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 0.021	pCi/g	1.00	0.0	08/30/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	14391-16-3	Europium-155	SOIL	LA-508-481		0.0620	pCi/g	1.00	0.044	08/30/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	E,T,C	Eu-155 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 0.038	pCi/g	1.00	0.0	08/30/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	13994-20-2	Neptunium-237	SOIL	LA-508-471	UX	1.00e-03	pCi/g	1.00	9.4e-03	09/14/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	E,T,C	Np-237 by AEA Total Ctng Error	SOIL	LA-508-471		+- 0.010	pCi/g	1.00	0.0	09/14/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	13981-16-3	Plutonium-238	SOIL	LA-508-471	U	-0.0150	pCi/g	1.00	0.064	09/14/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	E,T,C	Pu-238 by AEA Total Cntg Error	SOIL	LA-508-471		+- 0.033	pCi/g	1.00	0.0	09/14/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	PU-239/240	Pu-239/240 by AEA	SOIL	LA-508-471	U	8.80e-03	pCi/g	1.00	0.024	09/14/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err	SOIL	LA-508-471		+- 0.014	pCi/g	1.00	0.0	09/14/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	U-233/234	Uranium-233/234	SOIL	LA-508-471		0.190	pCi/g	1.00	5.1e-03	09/13/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	E,T,C	U-233/234 AEA Total Cntg Error	SOIL	LA-508-471		+- 0.061	pCi/g	1.00	0.0	09/13/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	15117-96-1	Uranium-235	SOIL	LA-508-471		0.0200	pCi/g	1.00	5.5e-03	09/13/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	E,T,C	U-235 by AEA Total Cntg Error	SOIL	LA-508-471		+- 0.014	pCi/g	1.00	0.0	09/13/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	U-238	Uranium-238	SOIL	LA-508-471		0.220	pCi/g	1.00	5.1e-03	09/13/04	08/10/04	08/10/04
W040001442	B191F0	GRP	TRENT	E,T,C	U-238 by AEA Total Cntg Error	SOIL	LA-508-471		+- 0.070	pCi/g	1.00	0.10	09/13/04	08/10/04	08/10/04

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U - Analyzed for but not detected above limiting criteria.

DF = Dilution Factor

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

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F03-025

Group #: WSCF20041392

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		PCB: Results are moisture corrected and reported on a dry weight basis. cgc
				SVOA: Results are moisture corrected and reported on a dry weight basis. den

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
TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent
Project Number F03-025 :F03-025

Group #: WSCF20041392

Sample #	Client ID			Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	BI-214 Count Error				13	%
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	RA-226 Count Error				13	%
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	TL-208 Count Error				13	%
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	AC-228 Count Error				14	%
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	RA-228 Count Error				14	%
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	SN-126 Count Error				20	%
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	BI-212 Count Error				21	%
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	U-235 Count Error				26	%
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	CS-134 Count Error				35	%
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	PB-212 Count Error				9.0	%
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	K-40 Count Error				9.1	%
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	PB-214 Count Error				9.6	%
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	CS-134				0.031	pCi/g
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	U-235				0.077	pCi/g
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	SN-126				0.17	pCi/g
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	TL-208				0.21	pCi/g
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	BI-212				0.43	pCi/g
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	BI-214				0.59	pCi/g
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	RA-226				0.59	pCi/g
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	AC-228				0.64	pCi/g
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	RA-228				0.64	pCi/g
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	PB-214				0.65	pCi/g
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	PB-212				0.70	pCi/g
W040001442	B191F0	GRP	TRENT	Gamma Energy Analysis-grd H2O	K-40				14	pCi/g

RQ=Result Qualifier

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WSCF
METHOD REFERENCES REPORT

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LA-212-411	Determination of Soil pH Measurement	
	EPA SW-846 9045C	SOIL AND WASTE pH
LA-503-401	LA-503-401: ANALYSIS OF CATIONS BY ION CHROMATOGRAPHY	
	EPA-600/4-86-024 300.7	Dissolved Sodium, Ammonium, Potassium, and Calcium in Wet Deposition by Chemical
LA-505-411	LA-505-411: ELEMENTAL ANALYSIS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPE	
	EPA SW-846 6010B	INDUCTIVELY COUPLED PLASMA-ATOMIC EMISSION 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
LA-508-471	LA-508-471: ALPHA ENERGY ANALYZER DATA ACQUISITION AND SYSTEM CHECKOUT USING ALP	
	None	No reference to any industry method.
LA-508-481	LA-508-481: GAMMA ENERGY ANALYSIS USING PROCOUNT SOFTWARE	
	None	No reference to any industry method.
LA-519-412	LA-519-412: TOTAL RESIDUE/% SOLIDS DRIED AT 103 - 105 C	
	EPA-600/4-79-020 160.3	RESIDUE, TOTAL
	Standard Methods 2540B	Total Solids Dried at 103-105 C
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)

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at \\ap006\aspdocs\WSCF\Sample Mgmt\ProcedureMethodCrossReference.pdf. This document includes on-line links to full-text versions of the procedures and methods, where available.

WSCF
METHOD REFERENCES REPORT

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	EPA SW-846 3665A	SULFURIC ACID/PERMANGANATE CLEANUP
	EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
	EPA SW-846 8082	POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY
LA-523-443	LA-523-443: GAS CHROMATOGRAPH ANALYSIS OF GASOLINE RANGE TOTAL PETROLEUM HYDROCA	
	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)
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)
LA-533-410	LA-533-410: ANION ANALYSIS BY ION CHROMATOGRAPHY	
	EPA-600/R-94-111 300	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
NWTPH	NWTPH-Diesel and/or Gasoline	
	WDOE NWTPH-Dx/Gx	Total Petroleum Hydrocarbons - Diesel/Gasoline
Organics	Organics - Alcohols, Glycols	

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at \\ap006\aspdocs\WSCF\Sample Mgmt\ProcedureMethodCrossReference.pdf. This document includes on-line links to full-text versions of the procedures and methods, where available.

WSCF
METHOD REFERENCES REPORT

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EPA SW-846 8015B	Nonhalogenated Organics Using GC/FID

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at \\ap006\aspdocs\WSCF\Sample Mgmt\ProcedureMethodCrossReference.pdf. This document includes on-line links to full-text versions of the procedures and methods, where available.

w13qlog v1 22-sep-2004 10:05:45

W13q Worklist/Batch/QC Report for Group# WSCF20041392

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
				SAMPLE	W040001442	Percent Solids
				SAMPLE	W040001442	pH Soil and Waste Measurement
			26529	BLANK		Cyanide by Midi/Spectrophotom
			26529	BLNK-PREP		Cyanide by Midi/Spectrophotom
			26529	LCS		Cyanide by Midi/Spectrophotom
			26529	MS	W040001442	Cyanide by Midi/Spectrophotom
			26529	MSD	W040001442	Cyanide by Midi/Spectrophotom
			26529	SAMPLE	W040001442	Cyanide by Midi/Spectrophotom
			26529	SPK-RPD	W040001442	Cyanide by Midi/Spectrophotom
22974	2	23338	26532	BLANK		Anions by Ion Chromatography
22974	16	23338	26532	BLANK		Anions by Ion Chromatography
22974	3	23338	26532	LCS		Anions by Ion Chromatography
22974	5	23338	26532	DUP	W040001442	Anions by Ion Chromatography
22974	6	23338	26532	MS	W040001442	Anions by Ion Chromatography
22974	7	23338	26532	MSD	W040001442	Anions by Ion Chromatography
22974	4	23338	26532	SAMPLE	W040001442	Anions by Ion Chromatography
			26615	MS	W040001442	PCBs complete list
			26615	MSD	W040001442	PCBs complete list
			26615	SAMPLE	W040001442	PCBs complete list
			26615	SPK-RPD	W040001442	PCBs complete list
			26615	SURR	W040001442	PCBs complete list
			26629	BLANK		WTPH-D TPH Diesel Range (Wa)
			26629	LCS		WTPH-D TPH Diesel Range (Wa)
			26629	SAMPLE	W040001442	WTPH-D TPH Diesel Range (Wa)
			26629	SURR	W040001442	WTPH-D TPH Diesel Range (Wa)
			26629	MS	W040001462	WTPH-D TPH Diesel Range (Wa)
			26629	MSD	W040001462	WTPH-D TPH Diesel Range (Wa)
			26629	SPK-RPD	W040001462	WTPH-D TPH Diesel Range (Wa)
			26636	BLANK		SW-846 8270B Semi-Vols
			26636	LCS		SW-846 8270B Semi-Vols
			26636	MS	W040001442	SW-846 8270B Semi-Vols
			26636	MSD	W040001442	SW-846 8270B Semi-Vols
			26636	SAMPLE	W040001442	SW-846 8270B Semi-Vols
			26636	SURR	W040001442	SW-846 8270B Semi-Vols
			26636	MS	W040001462	SW-846 8270B Semi-Vols
			26636	MSD	W040001462	SW-846 8270B Semi-Vols
			26636	SPK-RPD	W040001462	SW-846 8270B Semi-Vols
23093	1	23459	26666	BLANK		ICP-2008 MS All possible metal
23093	2	23459	26666	LCS		ICP-2008 MS All possible metal
23093	7	23459	26666	MS	W040001442	ICP-2008 MS All possible metal
23093	8	23459	26666	MSD	W040001442	ICP-2008 MS All possible metal
23093	6	23459	26666	SAMPLE	W040001442	ICP-2008 MS All possible metal
23093	4	23459	26666	MS	W040001462	ICP-2008 MS All possible metal
23093	5	23459	26666	MSD	W040001462	ICP-2008 MS All possible metal
23093	12	23459	26666	MS	W040001529	ICP-2008 MS All possible metal
23093	13	23459	26666	MSD	W040001529	ICP-2008 MS All possible metal
23093	0	23459	26666	SPK-RPD	W040001529	ICP-2008 MS All possible metal
23093	19	23459	26666	MS	W040001533	ICP-2008 MS All possible metal

23093	20	23459	26666	MSD	W040001533	ICP-2008 MS All possible metal
23093	0	23459	26666	SPK-RPD	W040001533	ICP-2008 MS All possible metal
		23459	26666	MS	W04DC00147	ICP-2008 MS All possible metal
		23459	26666	MSD	W04DC00147	ICP-2008 MS All possible metal
23106	2	23472	26681	BLANK		Ammonia (N) by IC
23106	12	23472	26681	BLANK		Ammonia (N) by IC
23106	3	23472	26681	LCS		Ammonia (N) by IC
23106	5	23472	26681	DUP	W040001442	Ammonia (N) by IC
23106	6	23472	26681	MS	W040001442	Ammonia (N) by IC
23106	7	23472	26681	MSD	W040001442	Ammonia (N) by IC
23106	4	23472	26681	SAMPLE	W040001442	Ammonia (N) by IC
23073	1	23435	26684	BLANK		Gamma Energy Analysis-grd H2O
23073	2	23435	26684	LCS		Gamma Energy Analysis-grd H2O
23073	3	23435	26684	DUP	W040001442	Gamma Energy Analysis-grd H2O
23073	4	23435	26684	SAMPLE	W040001442	Gamma Energy Analysis-grd H2O
23148	1	23514	26752	BLANK		ICP Metals Analysis, Grd H20 P
23148	2	23514	26752	LCS		ICP Metals Analysis, Grd H20 P
23148	4	23514	26752	MS	W040001421	ICP Metals Analysis, Grd H20 P
23148	5	23514	26752	MSD	W040001421	ICP Metals Analysis, Grd H20 P
23148	6	23514	26752	SAMPLE	W040001442	ICP Metals Analysis, Grd H20 P
23148	10	23514	26752	MS	W040001537	ICP Metals Analysis, Grd H20 P
23148	11	23514	26752	MSD	W040001537	ICP Metals Analysis, Grd H20 P
23148	0	23514	26752	SPK-RPD	W040001537	ICP Metals Analysis, Grd H20 P
			26783	BLANK		VOA Ground Water Protection
			26783	LCS		VOA Ground Water Protection
			26783	MS	W040001442	VOA Ground Water Protection
			26783	MSD	W040001442	VOA Ground Water Protection
			26783	SAMPLE	W040001442	VOA Ground Water Protection
			26783	SPK-RPD	W040001442	VOA Ground Water Protection
			26783	SURR	W040001442	VOA Ground Water Protection
23191	1	23559	26785	BLANK		NWTPH-GX TPH Gasoline Range
23191	2	23559	26785	LCS		NWTPH-GX TPH Gasoline Range
23191	4	23559	26785	DUP	W040001442	NWTPH-GX TPH Gasoline Range
23191	5	23559	26785	MS	W040001442	NWTPH-GX TPH Gasoline Range
23191	6	23559	26785	MSD	W040001442	NWTPH-GX TPH Gasoline Range
23191	3	23559	26785	SAMPLE	W040001442	NWTPH-GX TPH Gasoline Range
23191	6	23559	26785	SPK-RPD	W040001442	NWTPH-GX TPH Gasoline Range
23222	1	23589	26790	BLANK		Alcohols, Glycols - 8015
23222	2	23589	26790	LCS		Alcohols, Glycols - 8015
23222	4	23589	26790	DUP	W040001442	Alcohols, Glycols - 8015
23222	5	23589	26790	MS	W040001442	Alcohols, Glycols - 8015
23222	6	23589	26790	MSD	W040001442	Alcohols, Glycols - 8015
23222	3	23589	26790	SAMPLE	W040001442	Alcohols, Glycols - 8015
23222	6	23589	26790	SPK-RPD	W040001442	Alcohols, Glycols - 8015
23190	1	23558	26805	BLANK		Uranium Isotopics by AEA
23190	2	23558	26805	LCS		Uranium Isotopics by AEA
23190	3	23558	26805	DUP	W040001442	Uranium Isotopics by AEA
23190	4	23558	26805	SAMPLE	W040001442	Uranium Isotopics by AEA
23189	1	23612	26815	BLANK		Neptunium by AEA
23189	2	23612	26815	LCS		Neptunium by AEA
23189	3	23612	26815	DUP	W040001442	Neptunium by AEA
23189	4	23612	26815	SAMPLE	W040001442	Neptunium by AEA

0000021

23208	1	23584	26820	BLANK		Americium by AEA
23208	2	23584	26820	LCS		Americium by AEA
23208	3	23584	26820	DUP	W040001442	Americium by AEA
23208	4	23584	26820	SAMPLE	W040001442	Americium by AEA
23209	1	23583	26821	BLANK		Plutonium Isotopics by AEA
23209	2	23583	26821	LCS		Plutonium Isotopics by AEA
23209	3	23583	26821	DUP	W040001442	Plutonium Isotopics by AEA
23209	4	23583	26821	SAMPLE	W040001442	Plutonium Isotopics by AEA

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: Cyanide by Midi/Spectrophotom

SAF Number: F03-025
Sample Date: 08/10/04
Receive Date:08/10/04

Lab ID: W040001442

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MS	Cyanide by Midi/Spectrophotom	57-12-5	93.8	93.800	% Recov	08/17/04	75.000	125.000	
MSD	Cyanide by Midi/Spectrophotom	57-12-5	91.1	91.100	% Recov	08/17/04	75.000	125.000	
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	91.100	2.920	RPD	08/17/04	0.000	20.000	

BATCH QC

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Cyanide by Midi/Spectrophotom	57-12-5	1	1.000	ug/L	08/17/04	-4.000	4.000	
BLNK-PREP	Cyanide by Midi/Spectrophotom	57-12-5	1	1.000	ug/L	08/17/04	-4.000	4.000	
LCS	Cyanide by Midi/Spectrophotom	57-12-5	96.5	96.500	% Recov	08/17/04	85.000	115.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: Anions by Ion Chromatography

SAF Number: F03-025
Sample Date: 08/10/04
Receive Date:08/10/04

Lab ID: W040001442

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
DUP	Chloride	16887-00-6	<2.55e0	n/a	RPD	08/17/04	0.000	20.000	U
DUP	Fluoride	16984-48-8	<1.13e0	n/a	RPD	08/17/04	0.000	20.000	U
DUP	Nitrogen in Nitrite	NO2-N	<9.31e-1	n/a	RPD	08/17/04	0.000	20.000	U
DUP	Nitrogen in Nitrate	NO3-N	1.75e+00	4.678	RPD	08/17/04	0.000	20.000	
DUP	Phosphate	14265-44-2	<2.65e0	n/a	RPD	08/17/04	0.000	20.000	U
DUP	Sulfate	14808-79-8	<4.90e0	n/a	RPD	08/17/04	0.000	20.000	U
MS	Chloride	16887-00-6	9.38e-01	93.800	% Recov	08/17/04	75.000	125.000	
MS	Fluoride	16984-48-8	4.45e-01	90.081	% Recov	08/17/04	75.000	125.000	
MS	Nitrogen in Nitrite	NO2-N	4.63e-01	92.600	% Recov	08/17/04	75.000	125.000	
MS	Nitrogen in Nitrate	NO3-N	4.20e-01	93.126	% Recov	08/17/04	75.000	125.000	
MS	Phosphate	14265-44-2	8.27e-01	85.346	% Recov	08/17/04	75.000	125.000	
MS	Sulfate	14808-79-8	1.87e+00	93.500	% Recov	08/17/04	75.000	125.000	
MSD	Chloride	16887-00-6	1.00e+00	100.000	% Recov	08/17/04	75.000	125.000	
MSD	Fluoride	16984-48-8	4.61e-01	93.320	% Recov	08/17/04	75.000	125.000	
MSD	Nitrogen in Nitrite	NO2-N	4.93e-01	98.600	% Recov	08/17/04	75.000	125.000	
MSD	Nitrogen in Nitrate	NO3-N	4.30e-01	95.344	% Recov	08/17/04	75.000	125.000	
MSD	Phosphate	14265-44-2	8.47e-01	87.410	% Recov	08/17/04	75.000	125.000	
MSD	Sulfate	14808-79-8	1.97e+00	98.500	% Recov	08/17/04	75.000	125.000	

BATCH QC

BLANK	Chloride	16887-00-6	<5.20e-2	n/a	mg/L	08/17/04	0.000	300.000	U
BLANK	Chloride	16887-00-6	<5.20e-2	n/a	mg/L	08/17/04	0.000	300.000	U
BLANK	Fluoride	16984-48-8	<2.30e-2	n/a	mg/L	08/17/04	0.000	300.000	U
BLANK	Fluoride	16984-48-8	<2.30e-2	n/a	mg/L	08/17/04	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<1.90e-2	n/a	mg/L	08/17/04	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<1.90e-2	n/a	mg/L	08/17/04	0.000	300.000	U

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: Anions by Ion Chromatography

SAF Number: F03-025
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Nitrogen in Nitrate	NO3-N	<1.30e-2	n/a	mg/L	08/17/04	0.000	300.000	U
BLANK	Nitrogen in Nitrate	NO3-N	<1.30e-2	n/a	mg/L	08/17/04	0.000	300.000	U
BLANK	Phosphate	14265-44-2	<5.40e-2	n/a	mg/L	08/17/04	0.000	300.000	U
BLANK	Phosphate	14265-44-2	<5.40e-2	n/a	mg/L	08/17/04	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<1.00e-1	n/a	mg/L	08/17/04	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<1.00e-1	n/a	mg/L	08/17/04	0.000	300.000	U
LCS	Chloride	16887-00-6	2.00e+02	100.000	% Recov	08/17/04	80.000	120.000	
LCS	Fluoride	16984-48-8	9.02e+01	91.388	% Recov	08/17/04	80.000	120.000	
LCS	Nitrogen in Nitrite	NO2-N	9.35e+01	93.500	% Recov	08/17/04	80.000	120.000	
LCS	Nitrogen in Nitrate	NO3-N	8.37e+01	92.897	% Recov	08/17/04	80.000	120.000	
LCS	Phosphate	14265-44-2	1.77e+02	91.331	% Recov	08/17/04	80.000	120.000	
LCS	Sulfate	14808-79-8	3.65e+02	91.479	% Recov	08/17/04	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: PCBs complete list

SAF Number: F03-025
Sample Date: 08/10/04
Receive Date:08/10/04

Lab ID: W040001442

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MS	Decachlorobiphenyl	2051-24-3	0.99684	93.000	% Recov	08/19/04	50.000	150.000	
MS	Tetrachloro-m-xylene	877-09-8	0.95333	89.000	% Recov	08/19/04	50.000	150.000	
MSD	Decachlorobiphenyl	2051-24-3	1.0196	97.200	% Recov	08/19/04	50.000	150.000	
MSD	Tetrachloro-m-xylene	877-09-8	0.96477	92.000	% Recov	08/19/04	50.000	150.000	
SPK-RPD	Decachlorobiphenyl	2051-24-3	97.200	4.416	RPD	08/19/04	0.000	20.000	
SPK-RPD	Tetrachloro-m-xylene	877-09-8	92.000	3.315	RPD	08/19/04	0.000	20.000	
SURR	Decachlorobiphenyl	2051-24-3	0.97220	91.500	% Recov	08/19/04	50.000	150.000	
SURR	Tetrachloro-m-xylene	877-09-8	0.92337	86.900	% Recov	08/19/04	50.000	150.000	

BATCH QC

BLANK	Decachlorobiphenyl	2051-24-3	1.0818	108.000	% Recov	08/19/04	50.000	150.000	
BLANK	Tetrachloro-m-xylene	877-09-8	0.99088	99.100	% Recov	08/19/04	50.000	150.000	
LCS	Decachlorobiphenyl	2051-24-3	0.86502	86.500	% Recov	08/19/04	50.000	150.000	
LCS	Tetrachloro-m-xylene	877-09-8	0.87042	87.000	% Recov	08/19/04	50.000	150.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: WTPH-D TPH Diesel Range (Wa)

SAF Number: F03-025
Sample Date: 08/10/04
Receive Date:08/10/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040001442									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	ortho-Terphenyl Surr	84-15-1	24970	92.600	% Recov	08/25/04	70.000	130.000	
Lab ID: W040001462									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Kerosene	TPHKEROSENE	211330	85.300	% Recov	08/25/04	70.000	130.000	
MS	ortho-Terphenyl Surr	84-15-1	45067	90.900	% Recov	08/25/04	70.000	130.000	
MSD	Kerosene	TPHKEROSENE	250220	100.000	% Recov	08/25/04	70.000	130.000	
MSD	ortho-Terphenyl Surr	84-15-1	53509	107.000	% Recov	08/25/04	70.000	130.000	
SPK-RPD	ortho-Terphenyl Surr	84-15-1	107.000	16.271	RPD	08/25/04	0.000	20.000	
BATCH QC									
BLANK	Kerosene	TPHKEROSENE	< 3800	n/a	ug/Kg	08/25/04			U
BLANK	ortho-Terphenyl Surr	84-15-1	19186	76.700	% Recov	08/25/04	70.000	130.000	
BLANK	Total Pet. Hydrocarbons Diesel	TPHDIESEL	< 3800	n/a	ug/Kg	08/25/04			U
LCS	ortho-Terphenyl Surr	84-15-1	23621	94.500	% Recov	08/25/04	70.000	130.000	
LCS	Total Pet. Hydrocarbons Diesel	TPHDIESEL	106060	84.800	% Recov	08/25/04	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
Sample Date: 08/10/04
Receive Date:08/10/04

Lab ID: W040001442
BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MS	1,2,4-Trichlorobenzene	120-82-1	3190.2	88.700	% Recov	08/19/04	46.000	107.000	
MS	1,4-Dichlorobenzene	106-46-7	2976.0	82.700	% Recov	08/19/04	30.000	96.000	
MS	2,4-Dinitrotoluene	121-14-2	2928.6	81.400	% Recov	08/19/04	59.000	106.000	
MS	2-Fluorophenol	367-12-4	3329.9	92.600	% Recov	08/19/04	42.000	105.000	
MS	Acenaphthene	83-32-9	3255.2	90.500	% Recov	08/19/04	61.000	116.000	
MS	4-Chloro-3-methylphenol	59-50-7	5085.6	94.200	% Recov	08/19/04	61.000	106.000	
MS	2-Chlorophenol	95-57-8	4601.2	85.300	% Recov	08/19/04	66.000	106.000	
MS	N-Nitrosodi-n-dipropylamine	621-64-7	2982.4	82.900	% Recov	08/19/04	71.000	114.000	
MS	2-Fluorobiphenyl	321-60-8	3276.8	91.100	% Recov	08/19/04	56.000	122.000	
MS	Phenol	108-95-2	5018.2	93.000	% Recov	08/19/04	42.000	111.000	
MS	Nitrobenzene-d5	4165-60-0	3079.2	85.600	% Recov	08/19/04	64.000	111.000	
MS	4-Nitrophenol	100-02-7	4232.9	78.400	% Recov	08/19/04	32.000	118.000	
MS	Pentachlorophenol	87-86-5	4093.6	75.900	% Recov	08/19/04	62.000	114.000	
MS	Phenol-d5	4165-62-2	2588.3	71.900	% Recov	08/19/04	54.000	120.000	
MS	Pyrene	129-00-0	2677.9	74.400	% Recov	08/19/04	66.000	118.000	
MS	2,4,6-Tribromophenol	118-79-6	3257.8	90.500	% Recov	08/19/04	24.000	122.000	
MS	Terphenyl-d14 (7Cl)	98904-43-9	2853.5	79.300	% Recov	08/19/04	35.000	150.000	
MSD	1,2,4-Trichlorobenzene	120-82-1	3144.1	87.200	% Recov	08/19/04	46.000	107.000	
MSD	1,4-Dichlorobenzene	106-46-7	2670.8	74.000	% Recov	08/19/04	30.000	96.000	
MSD	2,4-Dinitrotoluene	121-14-2	2932.4	81.300	% Recov	08/19/04	59.000	106.000	
MSD	2-Fluorophenol	367-12-4	3177.9	88.100	% Recov	08/19/04	42.000	105.000	
MSD	Acenaphthene	83-32-9	3324.8	92.200	% Recov	08/19/04	61.000	116.000	
MSD	4-Chloro-3-methylphenol	59-50-7	4990.1	92.200	% Recov	08/19/04	61.000	106.000	
MSD	2-Chlorophenol	95-57-8	4344.7	80.300	% Recov	08/19/04	66.000	106.000	
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	2857.7	79.200	% Recov	08/19/04	71.000	114.000	
MSD	2-Fluorobiphenyl	321-60-8	3213.5	89.100	% Recov	08/19/04	56.000	122.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
Sample Date: 08/10/04
Receive Date:08/10/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	Phenol	108-95-2	4476.0	82.700	% Recov	08/19/04	42.000	111.000	
MSD	Nitrobenzene-d5	4165-60-0	3128.7	86.700	% Recov	08/19/04	64.000	111.000	
MSD	4-Nitrophenol	100-02-7	4105.2	75.900	% Recov	08/19/04	32.000	118.000	
MSD	Pentachlorophenol	87-86-5	3917.1	72.400	% Recov	08/19/04	62.000	114.000	
MSD	Phenol-d5	4165-62-2	2885.4	80.000	% Recov	08/19/04	54.000	120.000	
MSD	Pyrene	129-00-0	2666.5	73.900	% Recov	08/19/04	66.000	118.000	
MSD	2,4,6-Tribromophenol	118-79-6	3201.4	88.700	% Recov	08/19/04	24.000	122.000	
MSD	Terphenyl-d14 (7Cl)	98904-43-9	2919.6	80.900	% Recov	08/19/04	35.000	150.000	
SURR	2-Fluorophenol	367-12-4	3091.5	85.700	% Recov	08/19/04	42.000	105.000	
SURR	2-Fluorobiphenyl	321-60-8	3586.0	99.500	% Recov	08/19/04	56.000	122.000	
SURR	Nitrobenzene-d5	4165-60-0	2744.2	76.100	% Recov	08/19/04	64.000	111.000	
SURR	Phenol-d5	4165-62-2	2920.8	81.000	% Recov	08/19/04	54.000	120.000	
SURR	2,4,6-Tribromophenol	118-79-6	2995.3	83.100	% Recov	08/19/04	24.000	122.000	
SURR	Terphenyl-d14 (7Cl)	98904-43-9	2892.7	80.200	% Recov	08/19/04	35.000	150.000	

Lab ID: W040001462
BATCH QC ASSOCIATED WITH SAMPLE

MS	1,2,4-Trichlorobenzene	120-82-1	4641.5	77.200	% Recov	08/25/04	46.000	107.000	
MS	1,4-Dichlorobenzene	106-46-7	4568.2	76.000	% Recov	08/25/04	30.000	96.000	
MS	2,4-Dinitrotoluene	121-14-2	4762.4	79.200	% Recov	08/25/04	59.000	106.000	
MS	2-Fluorophenol	367-12-4	4818.8	80.200	% Recov	08/25/04	42.000	105.000	
MS	Acenaphthene	83-32-9	5079.8	84.500	% Recov	08/25/04	61.000	116.000	
MS	4-Chloro-3-methylphenol	59-50-7	7321.7	81.200	% Recov	08/25/04	61.000	106.000	
MS	2-Chlorophenol	95-57-8	6825.4	75.700	% Recov	08/25/04	66.000	106.000	
MS	N-Nitrosodi-n-dipropylamine	621-64-7	5763.9	95.900	% Recov	08/25/04	71.000	114.000	
MS	2-Fluorobiphenyl	321-60-8	5315.2	88.400	% Recov	08/25/04	56.000	122.000	
MS	Phenol	108-95-2	6930.1	76.900	% Recov	08/25/04	42.000	111.000	
MS	Nitrobenzene-d5	4165-60-0	4357.6	72.500	% Recov	08/25/04	64.000	111.000	
MS	4-Nitrophenol	100-02-7	6888.5	76.400	% Recov	08/25/04	32.000	118.000	
MS	Pentachlorophenol	87-86-5	6160.6	68.300	% Recov	08/25/04	62.000	114.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
Sample Date: 08/16/04
Receive Date:08/16/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MS	Phenol-d5	4165-62-2	5076.4	84.500	% Recov	08/25/04	54.000	120.000	
MS	Pyrene	129-00-0	4350.9	72.400	% Recov	08/25/04	66.000	118.000	
MS	2,4,6-Tribromophenol	118-79-6	5063.6	84.200	% Recov	08/25/04	24.000	122.000	
MS	Terphenyl-d14 (7Cl)	98904-43-9	4899.9	81.500	% Recov	08/25/04	35.000	150.000	
MSD	1,2,4-Trichlorobenzene	120-82-1	4435.9	73.900	% Recov	08/25/04	46.000	107.000	
MSD	1,4-Dichlorobenzene	106-46-7	4197.3	69.900	% Recov	08/25/04	30.000	96.000	
MSD	2,4-Dinitrotoluene	121-14-2	4201.0	69.900	% Recov	08/25/04	59.000	106.000	
MSD	2-Fluorophenol	367-12-4	4324.0	72.000	% Recov	08/25/04	42.000	105.000	
MSD	Acenaphthene	83-32-9	4732.5	78.800	% Recov	08/25/04	61.000	116.000	
MSD	4-Chloro-3-methylphenol	59-50-7	6694.7	74.300	% Recov	08/25/04	61.000	106.000	
MSD	2-Chlorophenol	95-57-8	6283.6	69.700	% Recov	08/25/04	66.000	106.000	
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	5590.0	93.100	% Recov	08/25/04	71.000	114.000	
MSD	2-Fluorobiphenyl	321-60-8	4967.0	82.700	% Recov	08/25/04	56.000	122.000	
MSD	Phenol	108-95-2	5976.2	66.300	% Recov	08/25/04	42.000	111.000	
MSD	Nitrobenzene-d5	4165-60-0	4061.9	67.600	% Recov	08/25/04	64.000	111.000	
MSD	4-Nitrophenol	100-02-7	6279.3	69.700	% Recov	08/25/04	32.000	118.000	
MSD	Pentachlorophenol	87-86-5	5611.4	62.300	% Recov	08/25/04	62.000	114.000	
MSD	Phenol-d5	4165-62-2	4906.6	81.700	% Recov	08/25/04	54.000	120.000	
MSD	Pyrene	129-00-0	4081.9	68.000	% Recov	08/25/04	66.000	118.000	
MSD	2,4,6-Tribromophenol	118-79-6	4438.4	73.900	% Recov	08/25/04	24.000	122.000	
MSD	Terphenyl-d14 (7Cl)	98904-43-9	4303.2	71.600	% Recov	08/25/04	35.000	150.000	
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	73.900	4.368	RPD	08/19/04	0.000	20.000	
SPK-RPD	1,4-Dichlorobenzene	106-46-7	69.900	8.362	RPD	08/19/04	0.000	20.000	
SPK-RPD	2,4-Dinitrotoluene	121-14-2	69.900	12.475	RPD	08/19/04	0.000	20.000	
SPK-RPD	2-Fluorophenol	367-12-4	72.000	10.775	RPD	08/19/04	0.000	20.000	
SPK-RPD	Acenaphthene	83-32-9	78.800	6.981	RPD	08/19/04	0.000	20.000	
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	74.300	8.875	RPD	08/19/04	0.000	20.000	
SPK-RPD	2-Chlorophenol	95-57-8	69.700	8.253	RPD	08/19/04	0.000	20.000	
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	93.100	2.963	RPD	08/19/04	0.000	20.000	
SPK-RPD	2-Fluorobiphenyl	321-60-8	82.700	6.663	RPD	08/19/04	0.000	20.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
Sample Date: 08/16/04
Receive Date:08/16/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SPK-RPD	Phenol	108-95-2	66.300	14.804	RPD	08/19/04	0.000	20.000	
SPK-RPD	Nitrobenzene-d5	4165-60-0	67.600	6.995	RPD	08/19/04	0.000	20.000	
SPK-RPD	4-Nitrophenol	100-02-7	69.700	9.172	RPD	08/19/04	0.000	20.000	
SPK-RPD	Pentachlorophenol	87-86-5	62.300	9.188	RPD	08/19/04	0.000	20.000	
SPK-RPD	Phenol-d5	4165-62-2	81.700	3.369	RPD	08/19/04	0.000	20.000	
SPK-RPD	Pyrene	129-00-0	68.000	6.268	RPD	08/19/04	0.000	20.000	
SPK-RPD	2,4,6-Tribromophenol	118-79-6	73.900	13.030	RPD	08/19/04	0.000	20.000	
SPK-RPD	Terphenyl-d14 (7Cl)	98904-43-9	71.600	12.933	RPD	08/19/04	0.000	20.000	

BATCH QC

BLANK	1,2,4-Trichlorobenzene	120-82-1	< 290	n/a	ug/Kg	08/19/04			U
BLANK	1,4-Dichlorobenzene	106-46-7	< 310	n/a	ug/Kg	08/19/04			U
BLANK	2,4-Dinitrotoluene	121-14-2	< 67	n/a	ug/Kg	08/19/04			U
BLANK	2-Fluorophenol	367-12-4	2836.7	85.100	% Recov	08/19/04	42.000	105.000	
BLANK	Acenaphthene	83-32-9	< 67	n/a	ug/Kg	08/19/04			U
BLANK	4-Chloro-3-methylphenol	59-50-7	< 67	n/a	ug/Kg	08/19/04			U
BLANK	2-Chlorophenol	95-57-8	< 150	n/a	ug/Kg	08/19/04			U
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 67	n/a	ug/Kg	08/19/04			U
BLANK	2-Fluorobiphenyl	321-60-8	3261.6	97.800	% Recov	08/19/04	56.000	122.000	
BLANK	Phenol	108-95-2	< 100	n/a	ug/Kg	08/19/04			U
BLANK	Nitrobenzene-d5	4165-60-0	2414.8	72.400	% Recov	08/19/04	64.000	111.000	
BLANK	4-Nitrophenol	100-02-7	< 650	n/a	ug/Kg	08/19/04			U
BLANK	Pentachlorophenol	87-86-5	< 300	n/a	ug/Kg	08/19/04			U
BLANK	Phenol-d5	4165-62-2	2697.9	80.900	% Recov	08/19/04	54.000	120.000	
BLANK	Pyrene	129-00-0	< 67	n/a	ug/Kg	08/19/04			U
BLANK	Tributyl phosphate	126-73-8	< 67	n/a	ug/Kg	08/19/04			U
BLANK	2,4,6-Tribromophenol	118-79-6	2373.9	71.200	% Recov	08/19/04	24.000	122.000	
BLANK	Terphenyl-d14 (7Cl)	98904-43-9	2672.5	80.200	% Recov	08/19/04	35.000	150.000	
LCS	1,2,4-Trichlorobenzene	120-82-1	2854.1	85.600	% Recov	08/19/04	46.000	107.000	
LCS	1,4-Dichlorobenzene	106-46-7	2659.4	79.800	% Recov	08/19/04	42.000	111.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
LCS	2,4-Dinitrotoluene	121-14-2	2664.6	79.900	% Recov	08/19/04	59.000	106.000	
LCS	2-Fluorophenol	367-12-4	2863.2	85.900	% Recov	08/19/04	50.000	110.000	
LCS	Acenaphthene	83-32-9	3002.2	90.100	% Recov	08/19/04	61.000	116.000	
LCS	4-Chloro-3-methylphenol	59-50-7	4197.0	83.900	% Recov	08/19/04	61.000	106.000	
LCS	2-Chlorophenol	95-57-8	3956.2	79.100	% Recov	08/19/04	66.000	106.000	
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	2923.3	87.700	% Recov	08/19/04	71.000	114.000	
LCS	2-Fluorobiphenyl	321-60-8	3123.3	93.700	% Recov	08/19/04	58.000	109.000	
LCS	Phenol	108-95-2	4306.6	86.100	% Recov	08/19/04	67.000	105.000	
LCS	Nitrobenzene-d5	4165-60-0	2656.7	79.700	% Recov	08/19/04	60.000	118.000	
LCS	4-Nitrophenol	100-02-7	4077.2	81.500	% Recov	08/19/04	32.000	118.000	
LCS	Pentachlorophenol	87-86-5	3194.1	63.900	% Recov	08/19/04	62.000	114.000	
LCS	Phenol-d5	4165-62-2	2596.8	77.900	% Recov	08/19/04	59.000	116.000	
LCS	Pyrene	129-00-0	2457.7	73.700	% Recov	08/19/04	66.000	118.000	
LCS	2,4,6-Tribromophenol	118-79-6	2856.0	85.700	% Recov	08/19/04	60.000	120.000	
LCS	Terphenyl-d14 (7Cl)	98904-43-9	2674.2	80.200	% Recov	08/19/04	60.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: ICP-2008 MS All possible metal

SAF Number: F03-025
Sample Date: 08/10/04
Receive Date:08/10/04

Lab ID: W040001442
BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MS	Silver	7440-22-4	351.9	87.975	% Recov	08/31/04	70.000	130.000	
MS	Arsenic	7440-38-2	397.7	99.425	% Recov	08/31/04	70.000	130.000	
MS	Barium	7440-39-3	359.5	89.875	% Recov	08/31/04	70.000	130.000	
MS	Beryllium	7440-41-7	418.3	104.575	% Recov	08/31/04	70.000	130.000	
MS	Cadmium	7440-43-9	405.6	101.400	% Recov	08/31/04	70.000	130.000	
MS	Chromium	7440-47-3	398.16	99.540	% Recov	08/31/04	70.000	130.000	
MS	Copper	7440-50-8	405.1	101.275	% Recov	08/31/04	70.000	130.000	
MS	Mercury	7439-97-6	22.06	110.300	% Recov	08/31/04	70.000	130.000	
MS	Nickel	7440-02-0	402.84	100.710	% Recov	08/31/04	70.000	130.000	
MS	Lead	7439-92-1	399.9	99.975	% Recov	08/31/04	70.000	130.000	
MS	Antimony	7440-36-0	398.4	99.600	% Recov	08/31/04	70.000	130.000	
MS	Selenium	7782-49-2	426.7	106.675	% Recov	08/31/04	70.000	130.000	
MS	Uranium	7440-61-1	394.1	98.525	% Recov	08/31/04	70.000	130.000	
MSD	Silver	7440-22-4	363.6	90.900	% Recov	08/31/04	70.000	130.000	
MSD	Arsenic	7440-38-2	402.3	100.575	% Recov	08/31/04	70.000	130.000	
MSD	Barium	7440-39-3	366.1	91.525	% Recov	08/31/04	70.000	130.000	
MSD	Beryllium	7440-41-7	438.5	109.625	% Recov	08/31/04	70.000	130.000	
MSD	Cadmium	7440-43-9	426.3	106.575	% Recov	08/31/04	70.000	130.000	
MSD	Chromium	7440-47-3	393.56	98.390	% Recov	08/31/04	70.000	130.000	
MSD	Copper	7440-50-8	410.6	102.650	% Recov	08/31/04	70.000	130.000	
MSD	Mercury	7439-97-6	22.91	114.550	% Recov	08/31/04	70.000	130.000	
MSD	Nickel	7440-02-0	393.64	98.410	% Recov	08/31/04	70.000	130.000	
MSD	Lead	7439-92-1	414.1	103.525	% Recov	08/31/04	70.000	130.000	
MSD	Antimony	7440-36-0	411	102.750	% Recov	08/31/04	70.000	130.000	
MSD	Selenium	7782-49-2	427.5	106.875	% Recov	08/31/04	70.000	130.000	
MSD	Uranium	7440-61-1	408	102.000	% Recov	08/31/04	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: ICP-2008 MS All possible metal

SAF Number: F03-025
Sample Date: 08/10/04
Receive Date:08/10/04

Lab ID: W040001462
BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MS	Silver	7440-22-4	365.3	91.325	% Recov	08/31/04	70.000	130.000	
MS	Arsenic	7440-38-2	434.8	108.700	% Recov	08/31/04	70.000	130.000	
MS	Barium	7440-39-3	414.74	103.685	% Recov	08/31/04	70.000	130.000	
MS	Beryllium	7440-41-7	434.6	108.650	% Recov	08/31/04	70.000	130.000	
MS	Cadmium	7440-43-9	423.8	105.950	% Recov	08/31/04	70.000	130.000	
MS	Chromium	7440-47-3	274.6	68.650	% Recov	08/31/04	70.000	130.000	*
MS	Copper	7440-50-8	432.13	108.032	% Recov	08/31/04	70.000	130.000	
MS	Mercury	7439-97-6	22.74	113.700	% Recov	08/31/04	70.000	130.000	
MS	Nickel	7440-02-0	353.8	88.450	% Recov	08/31/04	70.000	130.000	
MS	Lead	7439-92-1	411.1	102.775	% Recov	08/31/04	70.000	130.000	
MS	Antimony	7440-36-0	427.8	106.950	% Recov	08/31/04	70.000	130.000	
MS	Selenium	7782-49-2	444.1	111.025	% Recov	08/31/04	70.000	130.000	
MS	Uranium	7440-61-1	408.9	102.225	% Recov	08/31/04	70.000	130.000	
MSD	Silver	7440-22-4	355.2	88.800	% Recov	08/31/04	70.000	130.000	
MSD	Arsenic	7440-38-2	420.6	105.150	% Recov	08/31/04	70.000	130.000	
MSD	Barium	7440-39-3	407.04	101.760	% Recov	08/31/04	70.000	130.000	
MSD	Beryllium	7440-41-7	441.7	110.425	% Recov	08/31/04	70.000	130.000	
MSD	Cadmium	7440-43-9	419.6	104.900	% Recov	08/31/04	70.000	130.000	
MSD	Chromium	7440-47-3	273.4	68.350	% Recov	08/31/04	70.000	130.000	*
MSD	Copper	7440-50-8	423.73	105.933	% Recov	08/31/04	70.000	130.000	
MSD	Mercury	7439-97-6	23.19	115.950	% Recov	08/31/04	70.000	130.000	
MSD	Nickel	7440-02-0	341.6	85.400	% Recov	08/31/04	70.000	130.000	
MSD	Lead	7439-92-1	407.5	101.875	% Recov	08/31/04	70.000	130.000	
MSD	Antimony	7440-36-0	422.6	105.650	% Recov	08/31/04	70.000	130.000	
MSD	Selenium	7782-49-2	448.1	112.025	% Recov	08/31/04	70.000	130.000	
MSD	Uranium	7440-61-1	402.1	100.525	% Recov	08/31/04	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: ICP-2008 MS All possible metal

SAF Number: F03-025
Sample Date: 08/19/04
Receive Date:08/20/04

Lab ID: W040001529
BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MS	Silver	7440-22-4	358.1	89.525	% Recov	08/31/04	70.000	130.000	
MS	Arsenic	7440-38-2	428.3	107.075	% Recov	08/31/04	70.000	130.000	
MS	Barium	7440-39-3	413.93	103.483	% Recov	08/31/04	70.000	130.000	
MS	Beryllium	7440-41-7	442.5	110.625	% Recov	08/31/04	70.000	130.000	
MS	Cadmium	7440-43-9	431.5	107.875	% Recov	08/31/04	70.000	130.000	
MS	Chromium	7440-47-3	401.22	100.305	% Recov	08/31/04	70.000	130.000	
MS	Copper	7440-50-8	420.5	105.125	% Recov	08/31/04	70.000	130.000	
MS	Mercury	7439-97-6	22.67	113.350	% Recov	08/31/04	70.000	130.000	
MS	Nickel	7440-02-0	412.4	103.100	% Recov	08/31/04	70.000	130.000	
MS	Lead	7439-92-1	420.3	105.075	% Recov	08/31/04	70.000	130.000	
MS	Antimony	7440-36-0	407.3	101.825	% Recov	08/31/04	70.000	130.000	
MS	Selenium	7782-49-2	457.9	114.475	% Recov	08/31/04	70.000	130.000	
MS	Uranium	7440-61-1	416.04	104.010	% Recov	08/31/04	70.000	130.000	
MSD	Silver	7440-22-4	360.3	90.075	% Recov	08/31/04	70.000	130.000	
MSD	Arsenic	7440-38-2	441.7	110.425	% Recov	08/31/04	70.000	130.000	
MSD	Barium	7440-39-3	428.23	107.058	% Recov	08/31/04	70.000	130.000	
MSD	Beryllium	7440-41-7	458.9	114.725	% Recov	08/31/04	70.000	130.000	
MSD	Cadmium	7440-43-9	430.5	107.625	% Recov	08/31/04	70.000	130.000	
MSD	Chromium	7440-47-3	408.62	102.155	% Recov	08/31/04	70.000	130.000	
MSD	Copper	7440-50-8	432.9	108.225	% Recov	08/31/04	70.000	130.000	
MSD	Mercury	7439-97-6	23.43	117.150	% Recov	08/31/04	70.000	130.000	
MSD	Nickel	7440-02-0	424.8	106.200	% Recov	08/31/04	70.000	130.000	
MSD	Lead	7439-92-1	423.5	105.875	% Recov	08/31/04	70.000	130.000	
MSD	Antimony	7440-36-0	399.7	99.925	% Recov	08/31/04	70.000	130.000	
MSD	Selenium	7782-49-2	456	114.000	% Recov	08/31/04	70.000	130.000	
MSD	Uranium	7440-61-1	419.24	104.810	% Recov	08/31/04	70.000	130.000	
SPK-RPD	Silver	7440-22-4	90.075	0.612	RPD	08/31/04	0.000	20.000	
SPK-RPD	Arsenic	7440-38-2	110.425	3.080	RPD	08/31/04	0.000	20.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: ICP-2008 MS All possible metal

SAF Number: F03-025
Sample Date: 08/19/04
Receive Date:08/20/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SPK-RPD	Barium	7440-39-3	107.058	3.396	RPD	08/31/04	0.000	20.000	
SPK-RPD	Beryllium	7440-41-7	114.725	3.639	RPD	08/31/04	0.000	20.000	
SPK-RPD	Cadmium	7440-43-9	107.625	0.232	RPD	08/31/04	0.000	20.000	
SPK-RPD	Chromium	7440-47-3	102.155	1.828	RPD	08/31/04	0.000	20.000	
SPK-RPD	Copper	7440-50-8	108.225	2.906	RPD	08/31/04	0.000	20.000	
SPK-RPD	Nickel	7440-02-0	106.200	2.962	RPD	08/31/04	0.000	20.000	
SPK-RPD	Lead	7439-92-1	105.875	0.758	RPD	08/31/04	0.000	20.000	
SPK-RPD	Antimony	7440-36-0	99.925	1.884	RPD	08/31/04	0.000	20.000	
SPK-RPD	Selenium	7782-49-2	114.000	0.416	RPD	08/31/04	0.000	20.000	

Lab ID: W040001533
BATCH QC ASSOCIATED WITH SAMPLE

MS	Mercury	7439-97-6	22.17	110.850	% Recov	08/31/04	70.000	130.000	
MS	Uranium	7440-61-1	414.5	103.625	% Recov	08/31/04	70.000	130.000	
MSD	Mercury	7439-97-6	22.32	111.600	% Recov	08/31/04	70.000	130.000	
MSD	Uranium	7440-61-1	409.7	102.425	% Recov	08/31/04	70.000	130.000	
SPK-RPD	Mercury	7439-97-6	111.600	0.674	RPD	08/31/04	0.000	20.000	
SPK-RPD	Uranium	7440-61-1	102.425	1.165	RPD	08/31/04	0.000	20.000	

Lab ID: W04DC00147
BATCH QC ASSOCIATED WITH SAMPLE

MS	Silver	7440-22-4	320.2	80.050	% Recov	08/31/04	70.000	130.000	
MS	Arsenic	7440-38-2	430.01	107.502	% Recov	08/31/04	75.000	125.000	
MS	Barium	7440-39-3	458.67	114.668	% Recov	08/31/04	70.000	130.000	
MS	Cadmium	7440-43-9	424.58	106.145	% Recov	08/31/04	75.000	125.000	
MS	Chromium	7440-47-3	NA	n/a	% Recov	08/31/04	75.000	125.000	
MS	Mercury	7439-97-6	29.78	148.900	% Recov	08/31/04	70.000	130.000	*
MS	Lead	7439-92-1	701.6	175.400	% Recov	08/31/04	75.000	125.000	*
MS	Selenium	7782-49-2	454.4	113.600	% Recov	08/31/04	75.000	125.000	
MSD	Silver	7440-22-4	303.1	75.775	% Recov	08/31/04	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: ICP-2008 MS All possible metal

SAF Number: F03-025
Sample Date: 08/24/04
Receive Date:08/24/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	Arsenic	7440-38-2	407.81	101.953	% Recov	08/31/04	75.000	125.000	
MSD	Barium	7440-39-3	367.87	91.968	% Recov	08/31/04	70.000	130.000	
MSD	Cadmium	7440-43-9	406.88	101.720	% Recov	08/31/04	75.000	125.000	
MSD	Chromium	7440-47-3	NA	n/a	% Recov	08/31/04	75.000	125.000	
MSD	Mercury	7439-97-6	23.35	116.750	% Recov	08/31/04	70.000	130.000	
MSD	Lead	7439-92-1	346.1	86.525	% Recov	08/31/04	75.000	125.000	
MSD	Selenium	7782-49-2	442.8	110.700	% Recov	08/31/04	75.000	125.000	

BATCH QC

BLANK	Silver	7440-22-4	<0.2	n/a	ug/L	08/31/04	-0.440	0.440	U
BLANK	Arsenic	7440-38-2	<0.3	n/a	ug/L	08/31/04	-0.660	0.660	U
BLANK	Barium	7440-39-3	<0.2	n/a	ug/L	08/31/04	-0.440	0.440	U
BLANK	Beryllium	7440-41-7	<0.3	n/a	ug/L	08/31/04	-0.660	0.660	U
BLANK	Cadmium	7440-43-9	<0.1	n/a	ug/L	08/31/04	-0.220	0.220	U
BLANK	Chromium	7440-47-3	<0.3	n/a	ug/L	08/31/04	-0.660	0.660	U
BLANK	Copper	7440-50-8	<0.5	n/a	ug/L	08/31/04	-1.100	1.100	U
BLANK	Mercury	7439-97-6	0.12	0.120	ug/L	08/31/04	-0.220	0.220	
BLANK	Nickel	7440-02-0	<0.5	n/a	ug/L	08/31/04	-1.100	1.100	U
BLANK	Lead	7439-92-1	<1.2	n/a	ug/L	08/31/04	-2.640	2.640	U
BLANK	Antimony	7440-36-0	0.53	0.530	ug/L	08/31/04	-1.100	1.100	
BLANK	Selenium	7782-49-2	<0.3	n/a	ug/L	08/31/04	-0.660	0.660	U
BLANK	Uranium	7440-61-1	<0.1	n/a	ug/L	08/31/04	-0.220	0.220	U
LCS	Silver	7440-22-4	166.4	139.832	% Recov	08/31/04	110.000	170.000	
LCS	Arsenic	7440-38-2	203.2	104.205	% Recov	08/31/04	82.000	142.000	
LCS	Barium	7440-39-3	396.2	101.071	% Recov	08/31/04	79.000	123.000	
LCS	Beryllium	7440-41-7	83.95	111.487	% Recov	08/31/04	82.000	128.000	
LCS	Cadmium	7440-43-9	75.36	109.854	% Recov	08/31/04	88.000	127.000	
LCS	Chromium	7440-47-3	83.85	96.936	% Recov	08/31/04	50.000	126.000	
LCS	Copper	7440-50-8	131.5	103.543	% Recov	08/31/04	61.000	134.000	
LCS	Mercury	7439-97-6	10.37	110.202	% Recov	08/31/04	75.000	114.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: ICP-2008 MS All possible metal

SAF Number: F03-025
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
LCS	Nickel	7440-02-0	89.26	106.770	% Recov	08/31/04	84.000	125.000	
LCS	Lead	7439-92-1	96.29	101.894	% Recov	08/31/04	87.000	120.000	
LCS	Antimony	7440-36-0	129.3	93.696	% Recov	08/31/04	61.000	135.000	
LCS	Selenium	7782-49-2	128.8	112.982	% Recov	08/31/04	83.000	145.000	
LCS	Uranium	7440-61-1	399.5	99.875	% Recov	08/31/04	89.000	107.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: Ammonia (N) by IC

SAF Number: F03-025
Sample Date: 08/10/04
Receive Date:08/10/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040001442									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Ammonia (N) by IC	7664-41-7	<2.00e-1	n/a	RPD	08/30/04	0.000	20.000	U
MS	Ammonia (N) by IC	7664-41-7	3.72e-01	90.291	% Recov	08/30/04	75.000	125.000	
MSD	Ammonia (N) by IC	7664-41-7	3.65e-01	88.592	% Recov	08/30/04	75.000	125.000	
BATCH QC									
BLANK	Ammonia (N) by IC	7664-41-7	<4.00e-3	n/a	mg/L	08/30/04	0.000	30.000	U
BLANK	Ammonia (N) by IC	7664-41-7	<4.00e-3	n/a	mg/L	08/30/04	0.000	30.000	U
LCS	Ammonia (N) by IC	7664-41-7	8.73e+01	106.204	% Recov	08/30/04	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: Gamma Energy Analysis-grd H2O

SAF Number: F03-025
Sample Date: 08/10/04
Receive Date:08/10/04

Lab ID: W040001442

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
DUP	Cobalt-60	10198-40-0	U-2.17e-3	n/a	RPD	08/31/04	0.000	20.000	
DUP	Cesium-137	10045-97-3	U6.35e-03	n/a	RPD	08/31/04	0.000	20.000	
DUP	Europium-152	14683-23-9	U-9.97e-3	n/a	RPD	08/31/04	0.000	20.000	
DUP	Europium-154	15585-10-1	U-4.54e-3	n/a	RPD	08/31/04	0.000	20.000	
DUP	Europium-155	14391-16-3	U3.89e-2	n/a	RPD	08/31/04	0.000	20.000	

BATCH QC

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Cobalt-60	10198-40-0	U-2.6e-3	n/a	pCi/g	08/30/04	-10.000	1000.000	
BLANK	Cesium-137	10045-97-3	U1.81e-3	n/a	pCi/g	08/30/04	-10.000	1000.000	
BLANK	Europium-152	14683-23-9	U1.58e-3	n/a	pCi/g	08/30/04	-10.000	1000.000	
BLANK	Europium-154	15585-10-1	U-8.8e-3	n/a	pCi/g	08/30/04	-10.000	1000.000	
BLANK	Europium-155	14391-16-3	U2.44e-3	n/a	pCi/g	08/30/04	-10.000	1000.000	
LCS	Cobalt-60	10198-40-0	4.43e+03	105.728	% Recov	08/31/04	80.000	120.000	
LCS	Cesium-137	10045-97-3	3.76e+03	105.028	% Recov	08/31/04	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: ICP Metals Analysis, Grd H20 P

SAF Number: F03-025
Sample Date: 08/06/04
Receive Date:08/06/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040001421									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Bismuth	7440-69-9	475	100.423	% Recov	09/07/04	75.000	125.000	
MSD	Bismuth	7440-69-9	492	102.075	% Recov	09/07/04	75.000	125.000	
Lab ID: W040001537									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Bismuth	7440-69-9	485	97.980	% Recov	09/07/04	75.000	125.000	
MSD	Bismuth	7440-69-9	490	99.391	% Recov	09/07/04	75.000	125.000	
SPK-RPD	Bismuth	7440-69-9	99.391	1.430	RPD	09/07/04	0.000	20.000	
BATCH QC									
BLANK	Bismuth	7440-69-9	<5	n/a	ug/L	09/07/04	-1.000	0.068	U
LCS	Bismuth	7440-69-9	505	101.000	% Recov	09/07/04	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: VOA Ground Water Protection

SAF Number: F03-025
Sample Date: 08/10/04
Receive Date:08/10/04

Lab ID: W040001442
BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MS	1,1-Dichloroethene	75-35-4	42.880	89.200	% Recov	08/24/04	63.000	117.000	
MS	Benzene	71-43-2	49.750	103.000	% Recov	08/24/04	75.000	129.000	
MS	4-Bromofluorobenzene	460-00-4	95.490	99.300	% Recov	08/24/04	84.000	116.000	
MS	Chlorobenzene	108-90-7	52.170	109.000	% Recov	08/24/04	79.000	119.000	
MS	1,2-Dichloroethane-d4	17060-07-0	113.40	118.000	% Recov	08/24/04	82.000	136.000	
MS	Toluene-d8	2037-26-5	107.60	112.000	% Recov	08/24/04	89.000	119.000	
MS	Toluene	108-88-3	50.570	105.000	% Recov	08/24/04	76.000	120.000	
MS	Trichloroethene	79-01-6	49.060	102.000	% Recov	08/24/04	73.000	123.000	
MSD	1,1-Dichloroethene	75-35-4	48.580	97.200	% Recov	08/24/04	63.000	117.000	
MSD	Benzene	71-43-2	53.910	108.000	% Recov	08/24/04	75.000	129.000	
MSD	4-Bromofluorobenzene	460-00-4	102.00	102.000	% Recov	08/24/04	84.000	116.000	
MSD	Chlorobenzene	108-90-7	57.010	114.000	% Recov	08/24/04	79.000	119.000	
MSD	1,2-Dichloroethane-d4	17060-07-0	115.30	115.000	% Recov	08/24/04	82.000	136.000	
MSD	Toluene-d8	2037-26-5	113.70	114.000	% Recov	08/24/04	89.000	119.000	
MSD	Toluene	108-88-3	56.340	113.000	% Recov	08/24/04	76.000	120.000	
MSD	Trichloroethene	79-01-6	52.430	105.000	% Recov	08/24/04	73.000	123.000	
SPK-RPD	1,1-Dichloroethene	75-35-4	97.200	8.584	RPD	08/24/04	0.000	25.000	
SPK-RPD	Benzene	71-43-2	108.000	4.739	RPD	08/24/04	0.000	25.000	
SPK-RPD	4-Bromofluorobenzene	460-00-4	102.000	2.683	RPD	08/24/04	0.000	25.000	
SPK-RPD	Chlorobenzene	108-90-7	114.000	4.484	RPD	08/24/04	0.000	25.000	
SPK-RPD	1,2-Dichloroethane-d4	17060-07-0	115.000	2.575	RPD	08/24/04	0.000	25.000	
SPK-RPD	Toluene-d8	2037-26-5	114.000	1.770	RPD	08/24/04	0.000	25.000	
SPK-RPD	Toluene	108-88-3	113.000	7.339	RPD	08/24/04	0.000	25.000	
SPK-RPD	Trichloroethene	79-01-6	105.000	2.899	RPD	08/24/04	0.000	25.000	
SURR	4-Bromofluorobenzene	460-00-4	88.820	99.500	% Recov	08/24/04	71.000	125.000	
SURR	1,2-Dichloroethane-d4	17060-07-0	103.10	115.000	% Recov	08/24/04	80.000	134.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: VOA Ground Water Protection

SAF Number: F03-025
Sample Date: 08/10/04
Receive Date:08/10/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SURR	Toluene-d8	2037-26-5	97.090	109.000	% Recov	08/24/04	80.000	126.000	

BATCH QC

BLANK	1,1-Dichloroethane	75-34-3	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	1,1,1-Trichloroethane	71-55-6	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	1,1,2-Trichloroethane	79-00-5	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	1,1-Dichloroethene	75-35-4	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	1,2-Dichloroethane	107-06-2	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	1,2-Dichloroethene(Total)	540-59-0	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	1-Butanol	71-36-3	< 40	n/a	ug/Kg	08/24/04			U
BLANK	2-Hexanone	591-78-6	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	4-Methyl-2-Pentanone	108-10-1	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	Acetone	67-64-1	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	Bromodichloromethane	75-27-4	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	Benzene	71-43-2	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	4-Bromofluorobenzene	460-00-4	49.320	98.600	% Recov	08/24/04	71.000	125.000	
BLANK	Bromoform	75-25-2	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	Carbon disulfide	75-15-0	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	Carbon tetrachloride	56-23-5	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	Dibromochloromethane	124-48-1	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	Chloroform	67-66-3	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	Chlorobenzene	108-90-7	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	cis-1,3-Dichloropropene	10061-01-5	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	Chloroethane	75-00-3	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	1,2-Dichloroethane-d4	17060-07-0	56.190	112.000	% Recov	08/24/04	80.000	134.000	
BLANK	1,2-Dichloropropane	78-87-5	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	Ethylbenzene	100-41-4	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	Bromomethane	74-83-9	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	Chloromethane	74-87-3	< 2.0	n/a	ug/Kg	08/24/04			U

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: VOA Ground Water Protection

SAF Number: F03-025
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	2-Butanone	78-93-3	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	Methylenechloride	75-09-2	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	Tetrachloroethene	127-18-4	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	Styrene	100-42-5	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	Xylenes (total)	1330-20-7	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	Toluene-d8	2037-26-5	55.040	110.000	% Recov	08/24/04	80.000	126.000	
BLANK	Toluene	108-88-3	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	trans-1,3-Dichloropropene	10061-02-6	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	Trichloroethene	79-01-6	< 2.0	n/a	ug/Kg	08/24/04			U
BLANK	Vinyl chloride	75-01-4	< 2.0	n/a	ug/Kg	08/24/04			U
LCS	1,1-Dichloroethene	75-35-4	45.020	90.000	% Recov	08/24/04	70.000	130.000	
LCS	Benzene	71-43-2	56.150	112.000	% Recov	08/24/04	70.000	130.000	
LCS	4-Bromofluorobenzene	460-00-4	101.80	102.000	% Recov	08/24/04	71.000	125.000	
LCS	Chlorobenzene	108-90-7	55.030	110.000	% Recov	08/24/04	70.000	130.000	
LCS	1,2-Dichloroethane-d4	17060-07-0	118.80	119.000	% Recov	08/24/04	80.000	134.000	
LCS	Toluene-d8	2037-26-5	114.50	114.000	% Recov	08/24/04	80.000	126.000	
LCS	Toluene	108-88-3	56.210	112.000	% Recov	08/24/04	70.000	130.000	
LCS	Trichloroethene	79-01-6	55.920	112.000	% Recov	08/24/04	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: NWTPH-GX TPH Gasoline Range

SAF Number: F03-025
Sample Date: 08/10/04
Receive Date:08/10/04

Lab ID: W040001442

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
DUP	Total Pet. Hydrocarbons Gas	TPHGASOLINE	<50	n/a	RPD	08/23/04	0.000	20.000	U
MS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	3430	99.420	% Recov	08/23/04	50.000	150.000	
MSD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	3870	112.174	% Recov	08/23/04	50.000	150.000	
SPK-RPD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	112.174	12.055	RPD	08/23/04	0.000	20.000	

BATCH QC

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Total Pet. Hydrocarbons Gas	TPHGASOLINE	<50	n/a	mg/L	08/23/04	0.000	300.000	U
LCS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	3890	112.754	% Recov	08/23/04	85.000	115.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: Alcohols, Glycols - 8015

SAF Number: F03-025
Sample Date: 08/10/04
Receive Date:08/10/04

Lab ID: W040001442

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
DUP	2-Bromoethanol	540-51-2	8400	17.391	rpd	08/23/04	0.000	25.000	
DUP	Ethylene glycol	107-21-1	<5000	n/a	RPD	08/23/04	0.000	25.000	U
MS	2-Bromoethanol	540-51-2	7200	72.000	% Recov	08/23/04	70.000	125.000	
MS	Ethylene glycol	107-21-1	21000	105.000	% Recov	08/23/04	75.000	125.000	
MSD	2-Bromoethanol	540-51-2	7300	73.000	% Recov	08/23/04	70.000	125.000	
MSD	Ethylene glycol	107-21-1	21000	105.000	% Recov	08/23/04	75.000	125.000	
SPK-RPD	2-Bromoethanol	540-51-2	73.000	1.379	RPD	08/23/04	0.000	20.000	
SPK-RPD	Ethylene glycol	107-21-1	105.000	0.000	RPD	08/23/04	0.000	20.000	

BATCH QC

BLANK	2-Bromoethanol	540-51-2	7100	0.710	ug/Kg	08/23/04	0.000	10.000	
BLANK	Ethylene glycol	107-21-1	<5000	n/a	ug/Kg	08/23/04	0.000	5.000	U
LCS	2-Bromoethanol	540-51-2	7400	74.000	% Recov	08/23/04	70.000	130.000	
LCS	Ethylene glycol	107-21-1	21000	105.000	% Recov	08/23/04	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: Uranium Isotopics by AEA

SAF Number: F03-025
Sample Date: 08/10/04
Receive Date:08/10/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040001442									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Uranium-238	U-238	1.9e-01	14.634	RPD	09/13/04	0.000	20.000	
BATCH QC									
BLANK	Uranium-238	24678-82-8	3.1e-02	0.031	pCi/g	09/13/04	-10.000	1000.000	
LCS	Uranium-238	24678-82-8	7.9e+01	104.194	% Recov	09/13/04	75.000	125.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: Neptunium by AEA

SAF Number: F03-025
Sample Date: 08/10/04
Receive Date:08/10/04

Lab ID: W040001442

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
DUP	Neptunium-237	13994-20-2	5.5e-03	138.462	RPD	09/14/04	0.000	25.000	*

BATCH QC

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Neptunium-237	13994-20-2	1.5e-03	0.002	pCi/g	09/14/04	-10.000	1000.000	
LCS	Neptunium-237	13994-20-2	2.414	38.317	% Recov	09/14/04	75.000	125.000	*

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: Americium by AEA

SAF Number: F03-025
Sample Date: 08/10/04
Receive Date:08/10/04

Lab ID: W040001442

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
DUP	Americium-241	14596-10-2	2.8e-02	15.385	RPD	09/14/04	0.000	20.000	

BATCH QC

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Americium-241	14596-10-2	1.8e-02	0.018	pCi/g	09/14/04	-10.000	1000.000	
LCS	Americium-241	14596-10-2	5.2e+01	98.859	% Recov	09/14/04	75.000	125.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041392
Matrix: SOLID
Test: Plutonium Isotopics by AEA

SAF Number: F03-025
Sample Date: 08/10/04
Receive Date:08/10/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040001442									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Pu-239/240 by AEA	PU-239/240	9.9e-03	11.765	RPD	09/14/04	0.000	20.000	
BATCH QC									
BLANK	Pu-239/240 by AEA	PU-239/240	9.2e-03	0.009	pCi/g	09/14/04	-10.000	1000.000	
LCS	Pu-239/240 by AEA	PU-239/240	6.0e+01	121.951	% Recov	09/14/04	75.000	125.000	

W1141-SLF-04-245

ATTACHMENT 3

SAMPLE RECEIPT INFORMATION

Consisting of 3 pages
Not 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
9/9/04

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program
Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 119143/ES20
Group#: 20041392
Project#: F03-025
Proj Mgr: Steve Trent A0-21
Phone: 373-5869

The following samples were received from you on 08/10/04. 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
W040001442	B191F0	GRP @2008 @8015GPP @AEA-30 @AEA-31 @AEA-32 @AEA-33 @GEA-GPP @GPP6010 @IC-30 @PCBGPP @SVOC @TPHD-WA @TPHG-WA @VOA-GPP CN-02 NH4-IC PERSO PH-30	TRENT Solid, or handle as if solid	08/10/04

Test Acronym Description

Test Acronym	Description
@2008	ICP-2008 MS All possible metal
@8015GPP	Alcohols, Glycols - 8015
@AEA-30	Plutonium Isotopics by AEA
@AEA-31	Americium by AEA
@AEA-32	Uranium Isotopics by AEA
@AEA-33	Neptunium by AEA
@GEA-GPP	Gamma Energy Analysis-grd H2O
@GPP6010	ICP Metals Analysis, Grd H20 P
@IC-30	Anions by Ion Chromatography
@PCBGPP	PCBs complete list
@SVOCGPP	SW-846 8270B Semi-Vols
@TPHD-WA	WTPH-D TPH Diesel Range (Wa)
@TPHG-WA	NWTPH-GX TPH Gasoline Range
@VOA-GPP	VOA Ground Water Protection
CN-02	Cyanide by Midi/Spectrophotom
NH4-IC	Ammonia (N) by IC
PERSOLID	Percent Solids
PH-30	pH Soil and Waste Measurement

0000052

7/9/04

FLUOR Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F03-025-093	PAGE 1 OF 1

COLLECTOR Pope/Pfister/Wiberg/Tyra	**COMPANY CONTACT** TRENT, STEVE	**TELEPHONE NO.** 373-5689	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION 216-S-20; ~~42ft-13ft~~ 12.5'-15' AM 8-10-04	**PROJECT DESIGNATION** 200-LW-1/LW-2 Characterization - Soil		**SAF NO.** F03-025	**AIR QUALITY**	**45 Days / 45 Days**
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-356 1	**COA** 119143ES10	**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 N/A

SPECIAL HANDLING AND/OR STORAGE N/A

20041392

PRESERVATION			Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	None	None			
TYPE OF CONTAINER			Gs*	aG	aG	Gs*	P	aG	aG			
NO. OF CONTAINER(S)			3	1	1	3	1	1	1			
VOLUME			40mL	120mL	120mL	40mL	500mL	250mL	120mL			
SAMPLE ANALYSIS			SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	PCBs - 8082;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	SEE ITEM (6) IN SPECIAL INSTRUCTIONS			
SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**									
B191F0 W0400514 2	SOIL	8-10-04	1245	X	X	X	X	X	X	X		

CHAIN OF POSSESSION		**SIGN/ PRINT NAMES**	
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BYT/STORED IN**	**DATE/TIME**
[signature] 8-10-04	1350	Victor Bins [signature]	8/10/04 13:50
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BYT/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BYT/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BYT/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BYT/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BYT/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BYT/STORED IN**	**DATE/TIME**

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

053

FLUOR Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F03-025-093	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Wiberg/Tyra	**COMPANY CONTACT** TRENT, STEVE	**TELEPHONE NO.** 373-5689	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION 216-S-20; ~~12R-15R~~ 12.5' -15' 8-10-04	**PROJECT DESIGNATION** 200-LW-1/LW-2 Characterization - Soil		**SAF NO.** F03-025	**AIR QUALITY** ☐	**45 Days**
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-356 1	**COA** 119143ES10	**METHOD OF SHIPMENT** Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

The lab is to analyze pH within 24 hours of sample receipt. The lab is to report kerosene range organics from the WTPH-D analysis. FH acknowledges that the analytical holding time for Nitrate, Nitrite and Phosphate by EPA Method 300.0 will not be met.

(1)VOA - 8260A (TCL); VOA - 8260A (Add-On) {1-Butanol}
(2)Semi-VOA - 8270A (TCL) {Phenol} Semi-VOA -- 8270A (Add-On) {Tributyl phosphate} TPH-Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range} TPH-Gasoline Range - WTPH-G;
(3)Alcohols, Glycols, & Ketones - 8015 {Ethylene glycol}
(4)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155} Gamma Spec - Add-on ~~{Antimony-125, Cesium-134}~~ TMJ 8-4-04 Isotopic Plutonium; Isotopic Uranium; Neptunium-237; Americium-241;
(5)ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Copper, Nickel, Silver} ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Mercury, Selenium, Uranium} ICP Metals - 6010A (Add-on) {Bismuth}
(6)IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphate, Sulfate} Cations (IC) - 300.7 {Nitrogen in ammonium} Cyanide (Total) - 335.2; pH (Soil) - 9045;

A-6003-618(03/03)

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

FLUOR

Memorandum

M8141-SLF-05-146

To: S. J. Trent A0-21 Date: March 24, 2005

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

cc:

w/Attachments		w/o Attachments	
T. F. Dale	S3-28	D. J. Hart	S3-30
H. K. Meznarich	S3-30	M. A. Neely	S3-30
P. D. Mix	S3-30	L. C. Swanson	E6-35
J. E. Trechter	S3-30	File/LB	

Subject: GRP Request for N-Butylbenzene Data

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

(2) HNF-SD-CD-QAPP-017, Rev. 6, Waste Sampling & Characterization Facility Quality Assurance Plan

Attached for your review and information is the requested n-butylbenzene data. As you will see, all of the n-butylbenzene results were less than the minimum detection limit. Don't hesitate to give Pauline Mix a call (telephone 372-1488) if you need any additional information.

SLF/grf

Attachment 1

MAR 2005
RECEIVED

WSCF
Groundwater Remediation Project (GRP)
VOA Request - n-butylbenzene

CY 2004

SDG	WSCF #	Analysis Dt	Customer #	Matrix	n-butylbenzene (ug/kg)
20041392	W040001442	08/24/2004	B191F0	Solid	<1.9 U
20041448	W040001529	08/25/2004	B191F2	Solid	<2.0 U
	W040001530	08/25/2004	B191F4	Solid	<2.0 U
20041462	W040001537	08/30/2004	B191F3	Solid	<11 U
20041476	W040001540	09/07/2004	B191F5	Solid	<2.1 U
20041511	W040001547	09/14/2004	B191F6	Solid	<2.0 U
20041518	W040001552	09/14/2004	B191F7	Solid	<2.1 U
20041555	W040001570	09/16/2004	B191F8	Solid	<2.4 U
20041585	W040001608	09/16/2004	B191F9	Solid	<2.1 U
20041599	W040001618	09/23/2004	B191H0	Solid	<2.1 U
20042022	W040002092	11/09/2004	B19187	Solid	<5.2 U
	W040002093	11/09/2004	B19190	Solid	<5.2 U
	W040002094	11/09/2004	B19191	Solid	<2.0 U
	W040002095	11/09/2004	B19192	Solid	<2.1 U
20042054	*Rad Chem (AEA & GEA) Only - Requested on Chain of Custody*				
20042123	W040002206	11/18/2004	B19193	Solid	<2.1 U
20042146	W040002212	11/18/2004	B19194	Solid	<2.4 U

CY 2005

SDG	WSCF #	Analysis Dt	Customer #	Matrix	n-butylbenzene (ug/kg)
20050329	W050000473	02/18/2005	B19402	Solid	<2.1 U
20050388	W050000556	02/18/2005	B19407	Solid	<2.1 U