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Memorandum

M8141-SLF-05-138

To: S. J. Trent A0-21 Date: March 18, 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	H. S. Rich	S3-28
	J. E. Trechter	S3-30	L. C. Swanson	E6-35
			File/LB	

Subject: REVISED NARRATIVE & FINAL RESULTS FOR 200-LW-1/LW-2 CHARACTERIZATION - SOIL – SAMPLE DELIVERY GROUP WSCF20041462 - SAF NUMBER F03-025

Reference:
(1) Memo, SL Fitzgerald to SJ Trent, dated October 1, 2004 (M8141-SLF-04-270), same subject

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

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

This letter contains a revised narrative (Attachment 1) for sample delivery group WSCF20041462 formerly transmitted in Reference 1. The Analytical Methodology for Requested Analyses section was changed; Neptunium-237 is not a WDOE accredited WSCF procedure. The Comment section was modified to include Radiochemical Isotopic Results for Uranium and Plutonium and Neptunium-237 spike recoveries.

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Attachment 1

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ATTACHMENT 1

NARRATIVE

Consisting of 7 pages
Not including cover page

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Sample Delivery Group	**WSCF20041462, Rev. 3**
Sample Matrix	**Soil**
Sample Visual	**N/A**
SAF Number	**F03-025**
Data Deliverable	**Summary Report**

Introduction

One (1) 100-LW-1/LW-2 Characterization – Soil, 32.5' to 35', sample (B191F3) was received at the WSCF Laboratory on August 24, 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 8015. 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.
- PCB by 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.
- TPH Diesel Range by WDOE Method NWTPH-Dx. Analytical work was performed with no deviations to the approved method.

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- TPH Gas Range by WDOE Method NWTHPH-Gx. 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.

- Cyanide by EPA Method 335.2. Analytical work was performed with no deviations to the approved method.

- pH by EPA Method 150.1. 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.

- All RadChem analyses (AEA (Americium, Uranium and Plutonium), GEA) except Neptunium-237 were run by internal WDOE accredited WSCF procedures. Analytical work was performed with no deviations to the approved method.

Comments

General Comments – The sample was sampled on 8/18/04, 11:25 and received by WSCF laboratory on 8/24/04 9:42. All holding times were met.

ICP-MS Metals – 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 2-15 through 2-20 for QC details. Analytical Note:

- A matrix/matrix spike duplicate samples were not analyzed on B191F3. B191F0 (SDG# 20041392), B191F2 (SDG# 20041748) and B190V5 (SDG#20041417) GRP samples were spiked. Cadmium matrix spike and matrix spike duplicate recoveries were below established laboratory limits. Sample result was not flagged.

All other QC controls are within the established limits.

Alcohols/Glycols- The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 2-35 for QC details. Analytical Notes:

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

- 2-Bromoethanol (surrogate) – duplicate relative percent difference exceeded established laboratory limits. Both the matrix spike and matrix spike duplicate recoveries were within established laboratory limits. Sample result was not flagged.

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All other 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 2-28 for QC details. All QC controls are within the established limits.

Anions - The hold times for this analysis were met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See pages 2-23 through 2-24 for QC details. Analytical Notes:

- Nitrate - the result was less than the reportable detection limit, but greater than or equal to the method detection limit. The sample result was B flagged.
- Phosphate – the matrix spike recovery was below established laboratory limits. The matrix spike duplicate recovery was within limits. Sample result was less than the detection limit and not flagged.
- Sulfate Duplicate Relative Percent Difference exceeded established laboratory limits. The RPD criterion did not apply since the result was less than the reportable detection limit, but greater than or equal to the method detection limit. The sample result was B flagged.

All other 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 pages 2-26 through 2-27 for QC details. Analytical Notes:

- Decachlorobiphenyl (surrogate) spike relative percent difference exceeded established laboratory limits. Both the matrix spike and matrix spike duplicate were within established limits, the sample result was not flagged.
- Sample results are moisture corrected and reported on dry weight basis.

All other 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 pages 2-30 through 2-34 for QC details. Analytical Notes:

- Preparation Date: 30-august-2004.
- Pentachlorophenol laboratory control sample recovery was below established laboratory limits.
- Pentachlorophenol - matrix/matrix spike duplicate samples were not analyzed on B191F3. B17N67 (SDG# 20041457) and B191F5 (SDG#20041476) GRP samples were

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spiked and the Pentachlorophenol matrix spike and/or matrix spike duplicate recoveries were below established laboratory limits. B191F3 sample result was below the detection limit and not flagged.

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

All other QC controls are within the established limits.

TPH Diesel Range-WA - 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 2-25 for QC details. Analytical Note:

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

All QC controls are within the established limits.

TPH Gasoline Range-WA - 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 2-39 for QC details. Analytical Note:

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

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 2-36 through 2-38 for QC details. Analytical Note:

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

All QC controls are within the established limits.

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 2-21 for QC details. Analytical Note:

- Matrix spike and matrix spike duplicate recoveries were below established laboratory limits. Sample result was not flagged.

All other 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 2-22 for QC details. All QC controls are within the established limits.

Percent Solids – Analyzed for organic analyses moisture correction only.

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pH - The hold time for this analysis was met. All laboratory controls were within 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 page(s) 2-29, 2-40, 2-41, 2-42 and 2-43 for QC details.
Analytical Notes:

- Americium-241 – the duplicate relative percent difference exceeded established laboratory limits. All other QC controls were within limits; sample result was not flagged.
- Uranium-234, Urananium-235 and Plutonium-238 Additional Batch QC Data for Group 20042230:

Radiochemical Isotopic Results

Batch ID	Associated Samples (Customer ID)	Lab Sample ID	QC Sample	Isotope	Result
23338			Blank U ISO	U-234	4.95e-01 pCi/g
				U-235	1.93e-02 pCi/g
	B191F3	W040001537	Duplicate U ISO on W040001537	U-234	2.39e+02 pCi/g (6.1%)
				U-235	1.42e+01 pCi/g (13%)
23337			Blank Pu ISO	Pu-238	1.70e-01 pCi/g
	B191F3	W040001537	Duplicate Pu ISO on W040001537	Pu-238	3.43e+00 pCi/g (27%)

Radiochemical Tracer Recovery

Sample Number	Lab Sample ID	Isotope	Tracer Recovery (Percent)
BLANK		Pu-242	78.7
LCS		Pu-242	83.2
B191F3	W040001537	Pu-242	76.1
DUPLICATE	W040001537	Pu-242	81.2

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Radiochemical Tracer Recovery			
Sample Number	Lab Sample ID	Isotope	Tracer Recovery (Percent)
BLANK		Am-243	73.5
LCS		Am-243	78.1
B191F3	W040001537	Am-243	82.2
DUPLICATE	W040001537	Am-243	74.3
BLANK		U-232	82.1
LCS		U-232	75.4
B191F3	W040001537	U-232	34.2
DUPLICATE	W040001537	U-232	37.9

- Neptunium-237 – Spike (Np-237) recoveries for each sample are listed below. Laboratory control sample recovery was below established limits and may be attributed to a slight excess of ascorbic acid which occurs due to low iron levels in the matrix and causes retention of the Neptunium during separation. The solid matrix sample spike recoveries were within established laboratory limits. The duplicate relative percent difference exceeded established laboratory limits. Sample result was X (estimate) flagged.

Radiochemical Matrix Spike Recovery			
Sample Number	Lab Sample ID	Isotope	Matrix Spike Recovery (Percent)
LCS		Np-237	45.0
B191F3	W040001537	Np-237	93.5
DUPLICATE	W040001537	Np-237	104.0

All other QC controls are within the established limits.

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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

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WSCF
ANALYTICAL RESULTS REPORT

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

REVISED 10/13/04

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#: WSCF20041462
Report Date: 5-oct-2004

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WSCF
ANALYTICAL RESULTS REPORT

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

Group #: WSCF20041462

Sample #	Client ID		CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
Organic														
W040001537	B191F3	TRENT	107-21-1	Ethylene glycol	SOIL	Organics	U	< 5.00e+03	ug/kg	1.00	5.0e+03	08/30/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 2.50e+03	ug/kg	1.00	2.5e+03	08/31/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	12674-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	09/01/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02	09/01/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	09/01/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	09/01/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	12672-29-6	Aroclor-1248	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	09/01/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	09/01/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	09/01/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	09/01/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	09/01/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 690	ug/kg	1.00	6.9e+02	09/08/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 330	ug/kg	1.00	3.3e+02	09/08/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 110	ug/kg	1.00	1.1e+02	09/08/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 310	ug/kg	1.00	3.1e+02	09/08/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 71.0	ug/kg	1.00	71	09/08/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	< 71.0	ug/kg	1.00	71	09/08/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 71.0	ug/kg	1.00	71	09/08/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 71.0	ug/kg	1.00	71	09/08/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 71.0	ug/kg	1.00	71	09/08/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 320	ug/kg	1.00	3.2e+02	09/08/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	09/08/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-456	U	< 71.0	ug/kg	1.00	71	09/08/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	79-01-6	Trichloroethene	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	71-43-2	Benzene	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04

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

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

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REVISED 10/13/04

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WSCF
ANALYTICAL RESULTS REPORT

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

Group #: WSCF20041462

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W040001537	B191F3 TRENT	108-88-3	Toluene	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	100-42-5	Styrene	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	10061-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	10061-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	107-06-2	1,2-Dichloroethane	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	540-59-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	56-23-5	Carbon tetrachloride	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	591-78-6	2-Hexanone	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	67-64-1	Acetone	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	67-66-3	Chloroform	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	71-55-6	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	74-83-9	Bromomethane	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	74-87-3	Chloromethane	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	75-00-3	Chloroethane	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	75-25-2	Bromoform	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3 TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04

MDL = Minimum Detection Limit
RQ = Result Qualifier
DF = Dilution Factor

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.

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

Report WGPP/ver. 1
Groundwater Remediation Program

REVISED 10/13/04

Dayna 10/19/04

WSCF
ANALYTICAL RESULTS REPORT

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

Group #: WSCF20041462

Sample #	Client ID		CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W040001537	B191F3	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 11.0	ug/kg	1.00	11	08/30/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	71-36-3	1-Butanol	SOIL	LA-523-455	U	< 210	ug/kg	1.00	2.1e+02	08/30/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 4.00e+03	ug/kg	1.00	4.0e+03	09/07/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 4.00e+03	ug/kg	1.00	4.0e+03	09/07/04	08/18/04	08/24/04

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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 #: WSCF20041462

Sample #	Client ID		CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
Inorganic														
W040001537	B191F3	TRENT	57-12-5	Cyanide	SOIL	LA-695-402	U	< 0.200	mg/kg	1.00	0.20	09/01/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	NH4-N	Nitrogen in ammonium	SOIL	LA-503-401	U	< 0.200	mg/kg	50.00	0.20	08/30/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	TS	Total solids	SOIL	LA-519-412		93.7	%	1.00	0.0	09/01/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	PH	pH Measurement	SOIL	LA-212-411		9.35	pH	1.00	0.010	09/01/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	16984-48-8	Fluoride	SOIL	LA-533-410	U	< 1.15	mg/kg	50.00	1.2	09/03/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	16887-00-6	Chloride	SOIL	LA-533-410		15.7	mg/kg	50.00	2.6	09/03/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	NO2-N	Nitrogen in Nitrite	SOIL	LA-533-410	U	< 0.950	mg/kg	50.00	0.95	09/03/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	NO3-N	Nitrogen in Nitrate	SOIL	LA-533-410	B	3.48	mg/kg	50.00	0.65	09/03/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	14265-44-2	Phosphate	SOIL	LA-533-410	U	< 2.70	mg/kg	50.00	2.7	09/03/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	14808-79-8	Sulfate	SOIL	LA-533-410	B	10.2	mg/kg	50.00	5.0	09/03/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	7440-69-9	Bismuth	SOIL	LA-505-411	U	< 5.00	mg/kg	1.00	5.0	09/07/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	7440-02-0	Nickel	SOIL	LA-505-412		10.0	mg/kg	9.65	4.8	08/31/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	7440-22-4	Silver	SOIL	LA-505-412	U	< 1.93	mg/kg	9.65	1.9	08/31/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	7440-36-0	Antimony	SOIL	LA-505-412	U	< 4.82	mg/kg	9.65	4.8	08/31/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	7440-39-3	Barium	SOIL	LA-505-412		136	mg/kg	9.65	1.9	08/31/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	7440-41-7	Beryllium	SOIL	LA-505-412	U	< 2.90	mg/kg	9.65	2.9	08/31/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	7440-43-9	Cadmium	SOIL	LA-505-412	U	< 0.965	mg/kg	9.65	0.96	08/31/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	7440-47-3	Chromium	SOIL	LA-505-412		14.8	mg/kg	9.65	2.9	08/31/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	7440-50-8	Copper	SOIL	LA-505-412		29.1	mg/kg	9.65	4.8	08/31/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	7439-92-1	Lead	SOIL	LA-505-412	U	< 11.6	mg/kg	9.65	12	08/31/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	7439-97-6	Mercury	SOIL	LA-505-412		1.80	mg/kg	9.65	0.96	08/31/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	7440-61-1	Uranium	SOIL	LA-505-412		652	mg/kg	9.65	0.96	08/31/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	7440-38-2	Arsenic	SOIL	LA-505-412		5.65	mg/kg	9.65	2.9	08/31/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	7782-49-2	Selenium	SOIL	LA-505-412	U	< 2.90	mg/kg	9.65	2.9	08/31/04	08/18/04	08/24/04

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Report WGPP/ver. 1
Groundwater Remediation Program

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WSCF
ANALYTICAL RESULTS REPORT

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

Group #: WSCF20041462

Sample #	Client ID		CAS #	Test Performed	Matrix	WSCF Method	RQ		Result	Unit	DF	MDL	Analyze	Sample	Receive
Radiochemistry															
W040001537	B191F3	TRENT	14596-10-2	Americium-241	SOIL	LA-508-471			25.0	pCi/g	1.00	0.58	09/26/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	E,T,C	Am-241 by AEA Total Cntg Error	SOIL	LA-508-471		+-	6.5	pCi/g	1.00	0.0	09/26/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	10198-40-0	Cobalt-60	SOIL	LA-508-481			2.00	pCi/g	1.00	0.021	09/02/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	SOIL	LA-508-481		+-	0.18	pCi/g	1.00	0.0	09/02/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	10045-97-3	Cesium-137	SOIL	LA-508-481			813	pCi/g	1.00	0.14	09/02/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	E,T,C	Cs-137 Rel. Count Error (GEA)	SOIL	LA-508-481		+-	1.1e+02	pCi/g	1.00	0.0	09/02/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	14683-23-9	Europium-152	SOIL	LA-508-481	U		0.252	pCi/g	1.00	0.61	09/02/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	SOIL	LA-508-481		+-	0.49	pCi/g	1.00	0.0	09/02/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	15585-10-1	Europium-154	SOIL	LA-508-481			0.711	pCi/g	1.00	0.083	09/02/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	SOIL	LA-508-481		+-	0.11	pCi/g	1.00	0.0	09/02/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	14391-16-3	Europium-155	SOIL	LA-508-481	U		-2.42	pCi/g	1.00	0.96	09/02/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	E,T,C	Eu-155 Rel. Count Error (GEA)	SOIL	LA-508-481		+-	2.4	pCi/g	1.00	0.0	09/02/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	13994-20-2	Neptunium-237	SOIL	LA-508-471	X		0.0840	pCi/g	1.00	0.058	09/26/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	E,T,C	Np-237 by AEA Total Cntg Error	SOIL	LA-508-471		+-	0.063	pCi/g	1.00	0.0	09/26/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	13981-16-3	Plutonium-238	SOIL	LA-508-471			2.60	pCi/g	1.00	0.59	09/26/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	E,T,C	Pu-238 by AEA Total Cntg Error	SOIL	LA-508-471		+-	0.86	pCi/g	1.00	0.0	09/26/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	PU-239/240	Pu-239/240 by AEA	SOIL	LA-508-471			78.0	pCi/g	1.00	0.21	09/26/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err	SOIL	LA-508-471		+-	20	pCi/g	1.00	0.0	09/26/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	U-233/234	Uranium-233/234	SOIL	LA-508-471			250	pCi/g	1.00	0.38	09/26/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	E,T,C	U-233/234 AEA Total Cntg Error	SOIL	LA-508-471		+-	65	pCi/g	1.00	0.0	09/26/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	15117-96-1	Uranium-235	SOIL	LA-508-471			16.0	pCi/g	1.00	0.12	09/26/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	E,T,C	U-235 by AEA Total Cntg Error	SOIL	LA-508-471		+-	4.5	pCi/g	1.00	0.0	09/26/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	U-238	Uranium-238	SOIL	LA-508-471			270	pCi/g	1.00	0.30	09/26/04	08/18/04	08/24/04
W040001537	B191F3	TRENT	E,T,C	U-238 by AEA Total Cntg Error	SOIL	LA-508-471		+-	70	pCi/g	1.00	0.10	09/26/04	08/18/04	08/24/04

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WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F03-025

Group #: WSCF20041462

Sample #	Client ID		Lab Area	Test	Comment
			VALGROUP		Organics comments sent via email 9/23/04.gar
					Cyanide: Low spike recoveries possibly due to matrix effect. No cyanide detected in sample. -wb
W040001537	B191F3	TRENT	VALTEST	Anions by Ion Chromatography	Duplicate RPD but sample result has "B" data qualifier
					Phosphate matrix spikes are biased low due to probable matrix effect; no phosphate dectected in sample -wb

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 #: WSCF20041462

Sample #	Client ID		Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	AM-241 Count Error				11	%
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	TH-234 Count Error				12	%
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	SN-126 Count Error				13	%
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	U-235 Count Error				14	%
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	PB-212 Count Error				22	%
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	AC-228 Count Error				23	%
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	RA-228 Count Error				23	%
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	TL-208 Count Error				28	%
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	BI-214 Count Error				33	%
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	RA-226 Count Error				33	%
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	K-40 Count Error				9.2	%
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	TL-208				0.44	pCi/g
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	BI-214				0.71	pCi/g
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	RA-226				0.71	pCi/g
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	AC-228				0.80	pCi/g
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	RA-228				0.80	pCi/g
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	PB-212				1.4	pCi/g
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	U-235				12	pCi/g
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	K-40				14	pCi/g
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	TH-234				2.0e+02	pCi/g
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	AM-241				48	pCi/g
W040001537	B191F3	TRENT	Gamma Energy Analysis-grd H2O	SN-126				5.6	pCi/g
W040001537	B191F3	TRENT	SW-846 8270B Semi-Vols	SMP 11.182 Unknown Phthalate	Unknown	11.18285	J	2.4e+02	ug/kg

RQ=Result Qualifier J - Analyte is an estimate, has potentially larger errors

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Groundwater Remediation Program

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WSCF
METHOD REFERENCES REPORT

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-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.

Report Date: 5-oct-2004
Report#: WSCF20041462
Report WGPPM/0

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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.

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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.

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w13qlog v1 05-oct-2004 06:35:05

W13q Worklist/Batch/QC Report for Group# WSCF20041462

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
				SAMPLE	W040001537	Percent Solids
				SAMPLE	W040001537	pH Soil and Waste Measurement
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	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
23093	9	23459	26666	SAMPLE	W040001537	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
			26679	BLANK		Cyanide by Midi/Spectrophotom
			26679	BLNK-PREP		Cyanide by Midi/Spectrophotom
			26679	LCS		Cyanide by Midi/Spectrophotom
			26679	MS	W040001537	Cyanide by Midi/Spectrophotom
			26679	MSD	W040001537	Cyanide by Midi/Spectrophotom
			26679	SAMPLE	W040001537	Cyanide by Midi/Spectrophotom
			26679	SPK-RPD	W040001537	Cyanide by Midi/Spectrophotom
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	10	23472	26681	SAMPLE	W040001537	Ammonia (N) by IC
23144	2	23510	26727	BLANK		Anions by Ion Chromatography
23144	11	23510	26727	BLANK		Anions by Ion Chromatography
23144	3	23510	26727	LCS		Anions by Ion Chromatography
23144	5	23510	26727	DUP	W040001537	Anions by Ion Chromatography
23144	6	23510	26727	MS	W040001537	Anions by Ion Chromatography
23144	7	23510	26727	MSD	W040001537	Anions by Ion Chromatography
23144	4	23510	26727	SAMPLE	W040001537	Anions by Ion Chromatography
			26745	BLANK		WTPH-D TPH Diesel Range (Wa)
			26745	LCS		WTPH-D TPH Diesel Range (Wa)
			26745	SAMPLE	W040001537	WTPH-D TPH Diesel Range (Wa)
			26745	SURR	W040001537	WTPH-D TPH Diesel Range (Wa)
			26745	MS	W040001540	WTPH-D TPH Diesel Range (Wa)
			26745	MSD	W040001540	WTPH-D TPH Diesel Range (Wa)
			26745	SPK-RPD	W040001540	WTPH-D TPH Diesel Range (Wa)
			26751	BLANK		PCBs complete list
			26751	LCS		PCBs complete list
			26751	MS	W040001533	PCBs complete list

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			26751	MSD	W040001533	PCBs complete list
			26751	MS	W040001537	PCBs complete list
			26751	MSD	W040001537	PCBs complete list
			26751	SAMPLE	W040001537	PCBs complete list
			26751	SPK-RPD	W040001537	PCBs complete list
			26751	SURR	W040001537	PCBs complete list
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	10	23514	26752	MS	W040001537	ICP Metals Analysis, Grd H20 P
23148	11	23514	26752	MSD	W040001537	ICP Metals Analysis, Grd H20 P
23148	9	23514	26752	SAMPLE	W040001537	ICP Metals Analysis, Grd H20 P
23148	0	23514	26752	SPK-RPD	W040001537	ICP Metals Analysis, Grd H20 P
23069	1	23439	26778	BLANK		Gamma Energy Analysis-grd H2O
23069	2	23439	26778	LCS		Gamma Energy Analysis-grd H2O
23069	3	23439	26778	DUP	W040001537	Gamma Energy Analysis-grd H2O
23069	4	23439	26778	SAMPLE	W040001537	Gamma Energy Analysis-grd H2O
			26830	BLANK		SW-846 8270B Semi-Vols
			26830	LCS		SW-846 8270B Semi-Vols
			26830	MS	W040001533	SW-846 8270B Semi-Vols
			26830	MSD	W040001533	SW-846 8270B Semi-Vols
			26830	SAMPLE	W040001537	SW-846 8270B Semi-Vols
			26830	SURR	W040001537	SW-846 8270B Semi-Vols
			26830	MS	W040001540	SW-846 8270B Semi-Vols
			26830	MSD	W040001540	SW-846 8270B Semi-Vols
			26830	SPK-RPD	W040001540	SW-846 8270B Semi-Vols
23289	1	23657	26851	BLANK		Alcohols, Glycols - 8015
23289	2	23657	26851	LCS		Alcohols, Glycols - 8015
23289	5	23657	26851	DUP	W040001529	Alcohols, Glycols - 8015
23289	6	23657	26851	MS	W040001529	Alcohols, Glycols - 8015
23289	7	23657	26851	MSD	W040001529	Alcohols, Glycols - 8015
23289	7	23657	26851	SPK-RPD	W040001529	Alcohols, Glycols - 8015
23289	3	23657	26851	SAMPLE	W040001537	Alcohols, Glycols - 8015
			26898	BLANK		VOA Ground Water Protection
			26898	LCS		VOA Ground Water Protection
			26898	MS	W040001537	VOA Ground Water Protection
			26898	MSD	W040001537	VOA Ground Water Protection
			26898	SAMPLE	W040001537	VOA Ground Water Protection
			26898	SPK-RPD	W040001537	VOA Ground Water Protection
			26898	SURR	W040001537	VOA Ground Water Protection
23320	1	23688	26900	BLANK		NWTPH-GX TPH Gasoline Range
23320	2	23688	26900	LCS		NWTPH-GX TPH Gasoline Range
23320	3	23688	26900	SAMPLE	W040001537	NWTPH-GX TPH Gasoline Range
23320	5	23688	26900	DUP	W040001540	NWTPH-GX TPH Gasoline Range
23320	6	23688	26900	MS	W040001540	NWTPH-GX TPH Gasoline Range
23320	7	23688	26900	MSD	W040001540	NWTPH-GX TPH Gasoline Range
23320	7	23688	26900	SPK-RPD	W040001540	NWTPH-GX TPH Gasoline Range
23338	1	23711	26934	BLANK		Uranium Isotopics by AEA
23338	2	23711	26934	LCS		Uranium Isotopics by AEA
23338	3	23711	26934	DUP	W040001537	Uranium Isotopics by AEA
23338	4	23711	26934	SAMPLE	W040001537	Uranium Isotopics by AEA

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23339	1	23710	26938	BLANK		Americium by AEA
23339	2	23710	26938	LCS		Americium by AEA
23339	3	23710	26938	DUP	W040001537	Americium by AEA
23339	4	23710	26938	SAMPLE	W040001537	Americium by AEA
23340	1	23709	26940	BLANK		Plutonium Isotopics by AEA
23340	2	23709	26940	LCS		Plutonium Isotopics by AEA
23340	3	23709	26940	DUP	W040001537	Plutonium Isotopics by AEA
23340	4	23709	26940	SAMPLE	W040001537	Plutonium Isotopics by AEA
23337	1	23712	26962	BLANK		Neptunium by AEA
23337	2	23712	26962	LCS		Neptunium by AEA
23337	3	23712	26962	DUP	W040001537	Neptunium by AEA
23337	4	23712	26962	SAMPLE	W040001537	Neptunium by AEA

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
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	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
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	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
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	80.075	% 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	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
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	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
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	118.750	% 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	

REVISED 10/13/04
DAyres 10/19/04

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
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	108.770	% 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	

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Reyes 10/19/04

REVISED
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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
Matrix: SOLID
Test: Cyanide by Midi/Spectrophotom

SAF Number: F03-025
Sample Date: 08/18/04
Receive Date:08/24/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040001537									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Cyanide by Midi/Spectrophotom	57-12-5	67.2	67.200	% Recov	09/01/04	75.000	125.000	*
MSD	Cyanide by Midi/Spectrophotom	57-12-5	64.5	64.500	% Recov	09/01/04	75.000	125.000	*
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	64.500	4.100	RPD	09/01/04	0.000	20.000	
BATCH QC									
BLANK	Cyanide by Midi/Spectrophotom	57-12-5	1	1.000	ug/L	09/01/04	-4.000	4.000	
BLNK-PREP	Cyanide by Midi/Spectrophotom	57-12-5	1	1.000	ug/L	09/01/04	-4.000	4.000	
LCS	Cyanide by Midi/Spectrophotom	57-12-5	97.1	97.100	% Recov	09/01/04	85.000	115.000	

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Reviewed 10/19/04

REVISED 10/13/04

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
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	

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Daynes 10/19/04

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
Matrix: SOLID
Test: Anions by Ion Chromatography

SAF Number: F03-025
Sample Date: 08/18/04
Receive Date:08/24/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040001537									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Chloride	16887-00-6	1.66e+01	5.573	RPD	09/03/04	0.000	20.000	
DUP	Fluoride	16984-48-8	<1.15e0	n/a	RPD	09/03/04	0.000	20.000	U
DUP	Nitrogen in Nitrite	NO2-N	<9.50e-1	n/a	RPD	09/03/04	0.000	20.000	U
DUP	Nitrogen in Nitrate	NO3-N	3.44e+00	1.156	RPD	09/03/04	0.000	20.000	
DUP	Phosphate	14265-44-2	<2.70e0	n/a	RPD	09/03/04	0.000	20.000	U
DUP	Sulfate	14808-79-8	7.99e+00	24.299	RPD	09/03/04	0.000	20.000	
MS	Chloride	16887-00-6	8.54e-01	85.400	% Recov	09/03/04	75.000	125.000	
MS	Fluoride	16984-48-8	4.25e-01	86.032	% Recov	09/03/04	75.000	125.000	
MS	Nitrogen in Nitrite	NO2-N	4.41e-01	88.200	% Recov	09/03/04	75.000	125.000	
MS	Nitrogen in Nitrate	NO3-N	3.80e-01	84.257	% Recov	09/03/04	75.000	125.000	
MS	Phosphate	14265-44-2	8.50e-01	67.079	% Recov	09/03/04	75.000	125.000	
MS	Sulfate	14808-79-8	1.85e+00	92.500	% Recov	09/03/04	75.000	125.000	
MSD	Chloride	16887-00-6	9.95e-01	99.500	% Recov	09/03/04	75.000	125.000	
MSD	Fluoride	16984-48-8	4.51e-01	91.296	% Recov	09/03/04	75.000	125.000	
MSD	Nitrogen in Nitrite	NO2-N	4.87e-01	97.400	% Recov	09/03/04	75.000	125.000	
MSD	Nitrogen in Nitrate	NO3-N	4.11e-01	91.131	% Recov	09/03/04	75.000	125.000	
MSD	Phosphate	14265-44-2	7.34e-01	75.748	% Recov	09/03/04	75.000	125.000	
MSD	Sulfate	14808-79-8	2.08e+00	104.000	% Recov	09/03/04	75.000	125.000	
BATCH QC									
BLANK	Chloride	16887-00-6	<5.20e-2	n/a	mg/L	09/03/04	0.000	300.000	U
BLANK	Chloride	16887-00-6	<5.20e-2	n/a	mg/L	09/03/04	0.000	300.000	U
BLANK	Fluoride	16984-48-8	<2.30e-2	n/a	mg/L	09/03/04	0.000	300.000	U
BLANK	Fluoride	16984-48-8	<2.30e-2	n/a	mg/L	09/03/04	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<1.90e-2	n/a	mg/L	09/03/04	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<1.90e-2	n/a	mg/L	09/03/04	0.000	300.000	U

REVISED 10/13/04

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
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	09/03/04	0.000	300.000	U
BLANK	Nitrogen in Nitrate	NO3-N	<1.30e-2	n/a	mg/L	09/03/04	0.000	300.000	U
BLANK	Phosphate	14265-44-2	<5.40e-2	n/a	mg/L	09/03/04	0.000	300.000	U
BLANK	Phosphate	14265-44-2	<5.40e-2	n/a	mg/L	09/03/04	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<1.00e-1	n/a	mg/L	09/03/04	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<1.00e-1	n/a	mg/L	09/03/04	0.000	300.000	U
LCS	Chloride	16887-00-6	1.98e+02	99.000	% Recov	09/03/04	80.000	120.000	
LCS	Fluoride	16984-48-8	9.01e+01	91.287	% Recov	09/03/04	80.000	120.000	
LCS	Nitrogen in Nitrite	NO2-N	9.55e+01	95.500	% Recov	09/03/04	80.000	120.000	
LCS	Nitrogen in Nitrate	NO3-N	8.12e+01	90.122	% Recov	09/03/04	80.000	120.000	
LCS	Phosphate	14265-44-2	1.83e+02	94.427	% Recov	09/03/04	80.000	120.000	
LCS	Sulfate	14808-79-8	4.07e+02	102.005	% Recov	09/03/04	80.000	120.000	

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REVISED 10/13/04
DAyres 10/19/04

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
Matrix: SOLID
Test: WTPH-D TPH Diesel Range (Wa)

SAF Number: F03-025
Sample Date: 08/18/04
Receive Date:08/24/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040001537									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	ortho-Terphenyl Surr	84-15-1	23275	93.100	% Recov	09/07/04	70.000	130.000	
Lab ID: W040001540									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Kerosene	TPHKEROSENE	114780	87.900	% Recov	09/07/04	70.000	130.000	
MS	ortho-Terphenyl Surr	84-15-1	24318	93.100	% Recov	09/07/04	70.000	130.000	
MSD	Kerosene	TPHKEROSENE	118730	95.000	% Recov	09/07/04	70.000	130.000	
MSD	ortho-Terphenyl Surr	84-15-1	23008	92.000	% Recov	09/07/04	70.000	130.000	
SPK-RPD	ortho-Terphenyl Surr	84-15-1	92.000	1.189	RPD	09/07/04	0.000	20.000	
BATCH QC									
BLANK	Kerosene	TPHKEROSENE	< 3800	n/a	ug/Kg	09/07/04			U
BLANK	ortho-Terphenyl Surr	84-15-1	23563	94.300	% Recov	09/07/04	70.000	130.000	
BLANK	Total Pet. Hydrocarbons Diesel	TPHDIESEL	< 3800	n/a	ug/Kg	09/07/04			U
LCS	ortho-Terphenyl Surr	84-15-1	24928	99.700	% Recov	09/07/04	70.000	130.000	
LCS	Total Pet. Hydrocarbons Diesel	TPHDIESEL	108880	86.900	% Recov	09/07/04	80.000	120.000	

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REVISED 10/13/04
Daynes 10/19/04

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
Matrix: SOLID
Test: PCBs complete list

SAF Number: F03-025
Sample Date: 08/23/04
Receive Date:08/23/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040001533									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Aroclor-1254	11097-69-1	741.69	75.259	% Recov	09/01/04	75.000	125.000	
MS	Decachlorobiphenyl	2051-24-3	759.85	77.100	% Recov	09/01/04	50.000	150.000	
MS	Tetrachloro-m-xylene	877-09-8	889.74	90.300	% Recov	09/01/04	50.000	150.000	
MSD	Aroclor-1254	11097-69-1	784.86	77.500	% Recov	09/01/04	75.000	125.000	
MSD	Decachlorobiphenyl	2051-24-3	1027.0	101.000	% Recov	09/01/04	50.000	150.000	
MSD	Tetrachloro-m-xylene	877-09-8	851.91	84.200	% Recov	09/01/04	50.000	150.000	
Lab ID: W040001537									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Aroclor-1254	11097-69-1	496.22	102.000	% Recov	09/01/04	75.000	125.000	
MS	Decachlorobiphenyl	2051-24-3	706.30	72.700	% Recov	09/01/04	50.000	150.000	
MS	Tetrachloro-m-xylene	877-09-8*	828.85	85.300	% Recov	09/01/04	50.000	150.000	
MSD	Aroclor-1254	11097-69-1	518.07	108.000	% Recov	09/01/04	75.000	125.000	
MSD	Decachlorobiphenyl	2051-24-3	903.47	94.300	% Recov	09/01/04	50.000	150.000	
MSD	Tetrachloro-m-xylene	877-09-8	814.57	85.000	% Recov	09/01/04	50.000	150.000	
SPK-RPD	Aroclor-1254	11097-69-1	108.000	5.714	RPD	09/01/04	0.000	25.000	
SPK-RPD	Decachlorobiphenyl	2051-24-3	94.300	25.868	RPD	09/01/04	0.000	20.000	
SPK-RPD	Tetrachloro-m-xylene	877-09-8	85.000	0.352	RPD	09/01/04	0.000	20.000	
SURR	Decachlorobiphenyl	2051-24-3	784.79	79.900	% Recov	09/01/04	50.000	150.000	
SURR	Tetrachloro-m-xylene	877-09-8	862.77	87.900	% Recov	09/01/04	50.000	150.000	
BATCH QC									
BLANK	Aroclor-1016	12674-11-2	< 50	n/a	UGKG	09/01/04			U
BLANK	Aroclor-1221	11104-28-2	< 100	n/a	ug/Kg	09/01/04			U
BLANK	Aroclor-1232	11141-16-5	< 50	n/a	ug/Kg	09/01/04			U
BLANK	Aroclor-1242	53469-21-9	< 50	n/a	ug/Kg	09/01/04			U

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REVISED 10/13/04
Dayres 10/19/04

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
Matrix: SOLID
Test: PCBs complete list

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	Aroclor-1248	12672-29-6	< 50	n/a	ug/Kg	09/01/04			U
BLANK	Aroclor-1254	11097-69-1	< 50	n/a	ug/Kg	09/01/04			U
BLANK	Aroclor-1260	11096-82-5	< 50	n/a	ug/Kg	09/01/04			U
BLANK	Aroclor-1262	37324-23-5	< 50	n/a	ug/Kg	09/01/04			U
BLANK	Aroclor-1268	11100-14-4	< 50	n/a	ug/Kg	09/01/04			U
BLANK	Decachlorobiphenyl	2051-24-3	804.25	80.400	% Recov	09/01/04	50.000	150.000	
BLANK	Tetrachloro-m-xylene	877-09-8	921.74	92.200	% Recov	09/01/04	50.000	150.000	
LCS	Aroclor-1254	11097-69-1	902.61	90.300	% Recov	09/01/04	70.000	130.000	
LCS	Decachlorobiphenyl	2051-24-3	955.89	95.600	% Recov	09/01/04	50.000	150.000	
LCS	Tetrachloro-m-xylene	877-09-8	886.69	88.700	% Recov	09/01/04	50.000	150.000	

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10/13/04
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10/19/04

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
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	

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REVISED 10/13/04
Davies 10/19/04

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
Matrix: SOLID
Test: Gamma Energy Analysis-grd H2O

SAF Number: F03-025
Sample Date: 08/18/04
Receive Date:08/24/04

Lab ID: W040001537

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	1.96e+00	2.020	RPD	09/07/04	0.000	20.000	
DUP	Cesium-137	10045-97-3	8.13e+02	0.000	RPD	09/07/04	0.000	20.000	
DUP	Europium-152	14683-23-9	U-6.19e-1	n/a	RPD	09/07/04	0.000	20.000	
DUP	Europium-154	15585-10-1	6.64e-01	6.836	RPD	09/07/04	0.000	20.000	
DUP	Europium-155	14391-16-3	U-2.30e0	n/a	RPD	09/07/04	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	09/07/04	-10.000	1000.000	
BLANK	Cesium-137	10045-97-3	U1.81e-3	n/a	pCi/g	09/07/04	-10.000	1000.000	
BLANK	Europium-152	14683-23-9	U1.58e-3	n/a	pCi/g	09/07/04	-10.000	1000.000	
BLANK	Europium-154	15585-10-1	U-8.8e-3	n/a	pCi/g	09/07/04	-10.000	1000.000	
BLANK	Europium-155	14391-16-3	U2.44e-3	n/a	pCi/g	09/07/04	-10.000	1000.000	
LCS	Cobalt-60	10198-40-0	4.43e+03	105.728	% Recov	09/07/04	80.000	120.000	
LCS	Cesium-137	10045-97-3	3.76e+03	105.028	% Recov	09/07/04	80.000	120.000	

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REVISED 10/13/04
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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
Matrix: SOLID
Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
Sample Date: 08/23/04
Receive Date:08/23/04

Lab ID: W040001533
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	3033.8	88.500	% Recov	09/15/04	46.000	107.000	
MS	1,4-Dichlorobenzene	106-46-7	3132.8	91.400	% Recov	09/15/04	30.000	96.000	
MS	2,4-Dinitrotoluene	121-14-2	2792.7	81.500	% Recov	09/15/04	59.000	106.000	
MS	2-Fluorophenol	367-12-4	3163.6	92.300	% Recov	09/15/04	42.000	105.000	
MS	Acenaphthene	83-32-9	3030.5	88.400	% Recov	09/15/04	61.000	116.000	
MS	4-Chloro-3-methylphenol	59-50-7	4317.4	84.000	% Recov	09/15/04	61.000	106.000	
MS	2-Chlorophenol	95-57-8	5248.3	102.000	% Recov	09/15/04	66.000	106.000	
MS	N-Nitrosodi-n-dipropylamine	621-64-7	3082.7	89.900	% Recov	09/15/04	71.000	114.000	
MS	2-Fluorobiphenyl	321-60-8	3147.7	91.800	% Recov	09/15/04	56.000	122.000	
MS	Phenol	108-95-2	5037.4	98.000	% Recov	09/15/04	42.000	111.000	
MS	Nitrobenzene-d5	4165-60-0	3034.0	88.500	% Recov	09/15/04	64.000	111.000	
MS	4-Nitrophenol	100-02-7	3834.4	74.600	% Recov	09/15/04	32.000	118.000	
MS	Pentachlorophenol	87-86-5	4005.4	77.900	% Recov	09/15/04	62.000	114.000	
MS	Phenol-d5	4165-62-2	3300.2	96.300	% Recov	09/15/04	54.000	120.000	
MS	Pyrene	129-00-0	3341.9	97.500	% Recov	09/15/04	66.000	118.000	
MS	2,4,6-Tribromophenol	118-79-6	3194.2	93.200	% Recov	09/15/04	24.000	122.000	
MS	Terphenyl-d14 (7Cl)	98904-43-9	3400.0	99.200	% Recov	09/15/04	35.000	150.000	
MSD	1,2,4-Trichlorobenzene	120-82-1	5332.6	77.900	% Recov	09/09/04	46.000	107.000	
MSD	1,4-Dichlorobenzene	106-46-7	4834.2	70.600	% Recov	09/09/04	30.000	96.000	
MSD	2,4-Dinitrotoluene	121-14-2	4505.6	65.800	% Recov	09/09/04	59.000	106.000	
MSD	2-Fluorophenol	367-12-4	5504.0	80.400	% Recov	09/09/04	42.000	105.000	
MSD	Acenaphthene	83-32-9	4905.9	71.600	% Recov	09/09/04	61.000	116.000	
MSD	4-Chloro-3-methylphenol	59-50-7	7808.0	76.000	% Recov	09/09/04	61.000	106.000	
MSD	2-Chlorophenol	95-57-8	9036.2	88.000	% Recov	09/09/04	66.000	106.000	
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	4852.3	70.900	% Recov	09/09/04	71.000	114.000	
MSD	2-Fluorobiphenyl	321-60-8	5548.8	81.000	% Recov	09/09/04	56.000	122.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
Matrix: SOLID
Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
Sample Date: 08/23/04
Receive Date:08/23/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	Phenol	108-95-2	9533.6	92.800	% Recov	09/09/04	42.000	111.000	
MSD	Nitrobenzene-d5	4165-60-0	5330.8	77.800	% Recov	09/09/04	64.000	111.000	
MSD	4-Nitrophenol	100-02-7	6574.1	64.000	% Recov	09/09/04	32.000	118.000	
MSD	Pentachlorophenol	87-86-5	5861.6	57.100	% Recov	09/09/04	62.000	114.000	
MSD	Phenol-d5	4165-62-2	5705.8	83.300	% Recov	09/09/04	54.000	120.000	
MSD	Pyrene	129-00-0	5324.2	77.700	% Recov	09/09/04	66.000	118.000	
MSD	2,4,6-Tribromophenol	118-79-6	4161.0	60.800	% Recov	09/09/04	24.000	122.000	
MSD	Terphenyl-d14 (7Cl)	98904-43-9	5560.2	81.200	% Recov	09/09/04	35.000	150.000	

Lab ID: W040001537
BATCH QC ASSOCIATED WITH SAMPLE

SURR	2-Fluorophenol	367-12-4	2778.4	78.300	% Recov	09/08/04	42.000	105.000	
SURR	2-Fluorobiphenyl	321-60-8	2717.4	76.600	% Recov	09/08/04	56.000	122.000	
SURR	Nitrobenzene-d5	4165-60-0	2707.7	76.300	% Recov	09/08/04	64.000	111.000	
SURR	Phenol-d5	4165-62-2	2588.2	72.900	% Recov	09/08/04	54.000	120.000	
SURR	2,4,6-Tribromophenol	118-79-6	2183.7	61.500	% Recov	09/08/04	24.000	122.000	
SURR	Terphenyl-d14 (7Cl)	98904-43-9	3020.0	85.100	% Recov	09/08/04	35.000	150.000	

Lab ID: W040001540
BATCH QC ASSOCIATED WITH SAMPLE

MS	1,2,4-Trichlorobenzene	120-82-1	2581.2	74.000	% Recov	09/08/04	46.000	107.000	
MS	1,4-Dichlorobenzene	106-46-7	2335.5	67.000	% Recov	09/08/04	30.000	96.000	
MS	2,4-Dinitrotoluene	121-14-2	2343.7	67.200	% Recov	09/08/04	59.000	106.000	
MS	2-Fluorophenol	367-12-4	2633.4	75.500	% Recov	09/08/04	42.000	105.000	
MS	Acenaphthene	83-32-9	2363.8	67.800	% Recov	09/08/04	61.000	116.000	
MS	4-Chloro-3-methylphenol	59-50-7	3687.3	70.500	% Recov	09/08/04	61.000	106.000	
MS	2-Chlorophenol	95-57-8	3884.9	74.300	% Recov	09/08/04	66.000	106.000	
MS	N-Nitrosodi-n-dipropylamine	621-64-7	2525.8	72.400	% Recov	09/08/04	71.000	114.000	
MS	2-Fluorobiphenyl	321-60-8	2547.0	73.100	% Recov	09/08/04	56.000	122.000	
MS	Phenol	108-95-2	3954.4	75.600	% Recov	09/08/04	42.000	111.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
Matrix: SOLID
Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
Sample Date: 08/25/04
Receive Date:08/25/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MS	Nitrobenzene-d5	4165-60-0	2634.0	75.500	% Recov	09/08/04	64.000	111.000	
MS	4-Nitrophenol	100-02-7	3138.8	60.000	% Recov	09/08/04	32.000	118.000	
MS	Pentachlorophenol	87-86-5	2732.2	52.200	% Recov	09/08/04	62.000	114.000	*
MS	Phenol-d5	4165-62-2	2562.0	73.500	% Recov	09/08/04	54.000	120.000	
MS	Pyrene	129-00-0	2743.8	78.700	% Recov	09/08/04	66.000	118.000	
MS	2,4,6-Tribromophenol	118-79-6	2301.9	66.000	% Recov	09/08/04	24.000	122.000	
MS	Terphenyl-d14 (7Cl)	98904-43-9	2824.6	81.000	% Recov	09/08/04	35.000	150.000	
MSD	1,2,4-Trichlorobenzene	120-82-1	2648.6	76.200	% Recov	09/08/04	46.000	107.000	
MSD	1,4-Dichlorobenzene	106-46-7	2665.4	76.700	% Recov	09/08/04	30.000	96.000	
MSD	2,4-Dinitrotoluene	121-14-2	2328.7	67.000	% Recov	09/08/04	59.000	106.000	
MSD	2-Fluorophenol	367-12-4	2969.3	85.400	% Recov	09/08/04	42.000	105.000	
MSD	Acenaphthene	83-32-9	2386.4	68.700	% Recov	09/08/04	61.000	116.000	
MSD	4-Chloro-3-methylphenol	59-50-7	3765.8	72.200	% Recov	09/08/04	61.000	106.000	
MSD	2-Chlorophenol	95-57-8	4349.2	83.400	% Recov	09/08/04	66.000	106.000	
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	2752.3	79.200	% Recov	09/08/04	71.000	114.000	
MSD	2-Fluorobiphenyl	321-60-8	2629.8	75.700	% Recov	09/08/04	56.000	122.000	
MSD	Phenol	108-95-2	4219.3	80.900	% Recov	09/08/04	42.000	111.000	
MSD	Nitrobenzene-d5	4165-60-0	2672.2	76.900	% Recov	09/08/04	64.000	111.000	
MSD	4-Nitrophenol	100-02-7	3104.8	59.600	% Recov	09/08/04	32.000	118.000	
MSD	Pentachlorophenol	87-86-5	2805.6	53.800	% Recov	09/08/04	62.000	114.000	*
MSD	Phenol-d5	4165-62-2	2738.7	78.800	% Recov	09/08/04	54.000	120.000	
MSD	Pyrene	129-00-0	2797.9	80.500	% Recov	09/08/04	66.000	118.000	
MSD	2,4,6-Tribromophenol	118-79-6	2394.6	68.900	% Recov	09/08/04	24.000	122.000	
MSD	Terphenyl-d14 (7Cl)	98904-43-9	2889.7	83.100	% Recov	09/08/04	35.000	150.000	
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	76.200	2.929	RPD	09/08/04	0.000	20.000	
SPK-RPD	1,4-Dichlorobenzene	106-46-7	76.700	13.500	RPD	09/08/04	0.000	20.000	
SPK-RPD	2,4-Dinitrotoluene	121-14-2	67.000	0.298	RPD	09/08/04	0.000	20.000	
SPK-RPD	2-Fluorophenol	367-12-4	85.400	12.306	RPD	09/08/04	0.000	20.000	
SPK-RPD	Acenaphthene	83-32-9	68.700	1.319	RPD	09/08/04	0.000	20.000	
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	72.200	2.383	RPD	09/08/04	0.000	20.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
Matrix: SOLID
Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
Sample Date: 08/25/04
Receive Date:08/25/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SPK-RPD	2-Chlorophenol	95-57-8	83.400	11.541	RPD	09/08/04	0.000	20.000	
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	79.200	8.971	RPD	09/08/04	0.000	20.000	
SPK-RPD	2-Fluorobiphenyl	321-60-8	75.700	3.495	RPD	09/08/04	0.000	20.000	
SPK-RPD	Phenol	108-95-2	80.900	6.773	RPD	09/08/04	0.000	20.000	
SPK-RPD	Nitrobenzene-d5	4165-60-0	76.900	1.837	RPD	09/08/04	0.000	20.000	
SPK-RPD	4-Nitrophenol	100-02-7	59.600	0.669	RPD	09/08/04	0.000	20.000	
SPK-RPD	Pentachlorophenol	87-86-5	53.800	3.019	RPD	09/08/04	0.000	20.000	
SPK-RPD	Phenol-d5	4165-62-2	78.800	6.960	RPD	09/08/04	0.000	20.000	
SPK-RPD	Pyrene	129-00-0	80.500	2.261	RPD	09/08/04	0.000	20.000	
SPK-RPD	2,4,6-Tribromophenol	118-79-6	68.900	4.299	RPD	09/08/04	0.000	20.000	
SPK-RPD	Terphenyl-d14 (7Cl)	98904-43-9	83.100	2.559	RPD	09/08/04	0.000	20.000	

BATCH QC

BLANK	1,2,4-Trichlorobenzene	120-82-1	< 290	n/a	ug/Kg	09/08/04			U
BLANK	1,4-Dichlorobenzene	106-46-7	< 310	n/a	ug/Kg	09/08/04			U
BLANK	2,4-Dinitrotoluene	121-14-2	< 67	n/a	ug/Kg	09/08/04			U
BLANK	2-Fluorophenol	367-12-4	2818.5	84.600	% Recov	09/08/04	42.000	105.000	
BLANK	Acenaphthene	83-32-9	< 67	n/a	ug/Kg	09/08/04			U
BLANK	4-Chloro-3-methylphenol	59-50-7	< 67	n/a	ug/Kg	09/08/04			U
BLANK	2-Chlorophenol	95-57-8	< 150	n/a	ug/Kg	09/08/04			U
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 67	n/a	ug/Kg	09/08/04			U
BLANK	2-Fluorobiphenyl	321-60-8	2635.4	79.100	% Recov	09/08/04	56.000	122.000	
BLANK	Phenol	108-95-2	< 100	n/a	ug/Kg	09/08/04			U
BLANK	Nitrobenzene-d5	4165-60-0	2689.2	80.700	% Recov	09/08/04	64.000	111.000	
BLANK	4-Nitrophenol	100-02-7	< 650	n/a	ug/Kg	09/08/04			U
BLANK	Pentachlorophenol	87-86-5	< 300	n/a	ug/Kg	09/08/04			U
BLANK	Phenol-d5	4165-62-2	2555.9	76.700	% Recov	09/08/04	54.000	120.000	
BLANK	Pyrene	129-00-0	< 67	n/a	ug/Kg	09/08/04			U
BLANK	Tributyl phosphate	126-73-8	< 67	n/a	ug/Kg	09/08/04			U
BLANK	2,4,6-Tribromophenol	118-79-6	2374.3	71.200	% Recov	09/08/04	24.000	122.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
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
BLANK	Terphenyl-d14 (7Cl)	98904-43-9	2872.8	86.200	% Recov	09/08/04	35.000	150.000	
LCS	1,2,4-Trichlorobenzene	120-82-1	2380.8	71.400	% Recov	09/08/04	46.000	107.000	
LCS	1,4-Dichlorobenzene	106-46-7	2230.0	66.900	% Recov	09/08/04	42.000	111.000	
LCS	2,4-Dinitrotoluene	121-14-2	2123.6	63.700	% Recov	09/08/04	59.000	106.000	
LCS	2-Fluorophenol	367-12-4	2762.6	82.900	% Recov	09/08/04	50.000	110.000	
LCS	Acenaphthene	83-32-9	2158.8	64.800	% Recov	09/08/04	61.000	116.000	
LCS	4-Chloro-3-methylphenol	59-50-7	3398.8	68.000	% Recov	09/08/04	61.000	106.000	
LCS	2-Chlorophenol	95-57-8	3660.8	73.200	% Recov	09/08/04	66.000	106.000	
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	2386.5	71.600	% Recov	09/08/04	71.000	114.000	
LCS	2-Fluorobiphenyl	321-60-8	2381.1	71.400	% Recov	09/08/04	58.000	109.000	
LCS	Phenol	108-95-2	3623.8	72.500	% Recov	09/08/04	67.000	105.000	
LCS	Nitrobenzene-d5	4165-60-0	2573.5	77.200	% Recov	09/08/04	60.000	118.000	
LCS	4-Nitrophenol	100-02-7	3026.6	60.500	% Recov	09/08/04	32.000	118.000	
LCS	Pentachlorophenol	87-86-5	2535.5	50.700	% Recov	09/08/04	62.000	114.000	
LCS	Phenol-d5	4165-62-2	2531.8	76.000	% Recov	09/08/04	59.000	116.000	
LCS	Pyrene	129-00-0	2642.2	79.300	% Recov	09/08/04	66.000	118.000	
LCS	2,4,6-Tribromophenol	118-79-6	2170.8	65.100	% Recov	09/08/04	60.000	120.000	
LCS	Terphenyl-d14 (7Cl)	98904-43-9	2773.6	83.200	% Recov	09/08/04	60.000	120.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
Matrix: SOLID
Test: Alcohols, Glycols - 8015

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
DUP	2-Bromoethanol	540-51-2	15000	28.571	rpd	08/30/04	0.000	25.000	*
DUP	Ethylene glycol	107-21-1	<5000	n/a	RPD	08/30/04	0.000	25.000	U
MS	2-Bromoethanol	540-51-2	18000	90.000	% Recov	08/30/04	70.000	125.000	
MS	Ethylene glycol	107-21-1	11000	110.000	% Recov	08/30/04	75.000	125.000	
MSD	2-Bromoethanol	540-51-2	18000	90.000	% Recov	08/30/04	70.000	125.000	
MSD	Ethylene glycol	107-21-1	11000	110.000	% Recov	08/30/04	75.000	125.000	
SPK-RPD	2-Bromoethanol	540-51-2	90.000	0.000	RPD	08/30/04	0.000	20.000	
SPK-RPD	Ethylene glycol	107-21-1	110.000	0.000	RPD	08/30/04	0.000	20.000	

BATCH QC

BLANK	2-Bromoethanol	540-51-2	15000	0.750	ug/Kg	08/30/04	0.000	10.000	
BLANK	Ethylene glycol	107-21-1	<5000	n/a	ug/Kg	08/30/04	0.000	5.000	U
LCS	2-Bromoethanol	540-51-2	16000	80.000	% Recov	08/30/04	70.000	130.000	
LCS	Ethylene glycol	107-21-1	10000	100.000	% Recov	08/30/04	70.000	130.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
Matrix: SOLID
Test: VOA Ground Water Protection

SAF Number: F03-025
Sample Date: 08/18/04
Receive Date:08/24/04

Lab ID: W040001537
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	281.80	106.000	% Recov	08/30/04	63.000	117.000	
MS	Benzene	71-43-2	293.90	110.000	% Recov	08/30/04	75.000	129.000	
MS	4-Bromofluorobenzene	460-00-4	528.50	99.000	% Recov	08/30/04	84.000	116.000	
MS	Chlorobenzene	108-90-7	297.40	111.000	% Recov	08/30/04	79.000	119.000	
MS	1,2-Dichloroethane-d4	17060-07-0	631.60	118.000	% Recov	08/30/04	82.000	136.000	
MS	Toluene-d8	2037-26-5	598.70	112.000	% Recov	08/30/04	89.000	119.000	
MS	Toluene	108-88-3	302.60	113.000	% Recov	08/30/04	76.000	120.000	
MS	Trichloroethene	79-01-6	290.00	109.000	% Recov	08/30/04	73.000	123.000	
MSD	1,1-Dichloroethene	75-35-4	285.10	107.000	% Recov	08/30/04	63.000	117.000	
MSD	Benzene	71-43-2	296.60	111.000	% Recov	08/30/04	75.000	129.000	
MSD	4-Bromofluorobenzene	460-00-4	539.10	101.000	% Recov	08/30/04	84.000	116.000	
MSD	Chlorobenzene	108-90-7	302.90	114.000	% Recov	08/30/04	79.000	119.000	
MSD	1,2-Dichloroethane-d4	17060-07-0	614.80	115.000	% Recov	08/30/04	82.000	136.000	
MSD	Toluene-d8	2037-26-5	595.00	112.000	% Recov	08/30/04	89.000	119.000	
MSD	Toluene	108-88-3	299.20	112.000	% Recov	08/30/04	76.000	120.000	
MSD	Trichloroethene	79-01-6	294.80	110.000	% Recov	08/30/04	73.000	123.000	
SPK-RPD	1,1-Dichloroethene	75-35-4	107.000	0.939	RPD	08/30/04	0.000	25.000	
SPK-RPD	Benzene	71-43-2	111.000	0.905	RPD	08/30/04	0.000	25.000	
SPK-RPD	4-Bromofluorobenzene	460-00-4	101.000	2.000	RPD	08/30/04	0.000	25.000	
SPK-RPD	Chlorobenzene	108-90-7	114.000	2.667	RPD	08/30/04	0.000	25.000	
SPK-RPD	1,2-Dichloroethane-d4	17060-07-0	115.000	2.575	RPD	08/30/04	0.000	25.000	
SPK-RPD	Toluene-d8	2037-26-5	112.000	0.000	RPD	08/30/04	0.000	25.000	
SPK-RPD	Toluene	108-88-3	112.000	0.889	RPD	08/30/04	0.000	25.000	
SPK-RPD	Trichloroethene	79-01-6	110.000	0.913	RPD	08/30/04	0.000	25.000	
SURR	4-Bromofluorobenzene	460-00-4	438.80	82.200	% Recov	08/30/04	71.000	125.000	
SURR	1,2-Dichloroethane-d4	17060-07-0	546.10	102.000	% Recov	08/30/04	80.000	134.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
Matrix: SOLID
Test: VOA Ground Water Protection

SAF Number: F03-025
Sample Date: 08/18/04
Receive Date:08/24/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SURR	Toluene-d8	2037-26-5	576.50	108.000	% Recov	08/30/04	80.000	126.000	
BATCH QC									
BLANK	1,1-Dichloroethane	75-34-3	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	1,1,1-Trichloroethane	71-55-6	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	1,1,2-Trichloroethane	79-00-5	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	1,1-Dichloroethene	75-35-4	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	1,2-Dichloroethane	107-06-2	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	1,2-Dichloroethene(Total)	540-59-0	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	1-Butanol	71-36-3	< 40	n/a	ug/Kg	08/30/04			U
BLANK	2-Hexanone	591-78-6	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	4-Methyl-2-Pentanone	108-10-1	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	Acetone	67-64-1	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	Bromodichloromethane	75-27-4	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	Benzene	71-43-2	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	4-Bromofluorobenzene	460-00-4	49.080	98.200	% Recov	08/30/04	71.000	125.000	
BLANK	Bromoform	75-25-2	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	Carbon disulfide	75-15-0	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	Carbon tetrachloride	56-23-5	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	Dibromochloromethane	124-48-1	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	Chloroform	67-66-3	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	Chlorobenzene	108-90-7	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	cis-1,3-Dichloropropene	10061-01-5	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	Chloroethane	75-00-3	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	1,2-Dichloroethane-d4	17060-07-0	57.020	114.000	% Recov	08/30/04	80.000	134.000	
BLANK	1,2-Dichloropropane	78-87-5	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	Ethylbenzene	100-41-4	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	Bromomethane	74-83-9	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	Chloromethane	74-87-3	< 2.0	n/a	ug/Kg	08/30/04			U

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REVISED 10/13/04
Dayes 10/19/04

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
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	08/30/04			U
BLANK	Methylenechloride	75-09-2	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	Tetrachloroethene	127-18-4	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	Styrene	100-42-5	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	Xylenes (total)	1330-20-7	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	Toluene-d8	2037-26-5	54.290	109.000	% Recov	08/30/04	80.000	126.000	
BLANK	Toluene	108-88-3	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	trans-1,3-Dichloropropene	10061-02-6	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	Trichloroethene	79-01-6	< 2.0	n/a	ug/Kg	08/30/04			U
BLANK	Vinyl chloride	75-01-4	< 2.0	n/a	ug/Kg	08/30/04			U
LCS	1,1-Dichloroethene	75-35-4	25.550	102.000	% Recov	08/30/04	70.000	130.000	
LCS	Benzene	71-43-2	27.860	111.000	% Recov	08/30/04	70.000	130.000	
LCS	4-Bromofluorobenzene	460-00-4	50.010	100.000	% Recov	08/30/04	71.000	125.000	
LCS	Chlorobenzene	108-90-7	28.050	112.000	% Recov	08/30/04	70.000	130.000	
LCS	1,2-Dichloroethane-d4	17060-07-0	59.710	119.000	% Recov	08/30/04	80.000	134.000	
LCS	Toluene-d8	2037-26-5	56.150	112.000	% Recov	08/30/04	80.000	126.000	
LCS	Toluene	108-88-3	28.170	113.000	% Recov	08/30/04	70.000	130.000	
LCS	Trichloroethene	79-01-6	27.010	108.000	% Recov	08/30/04	70.000	130.000	

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REVISED
10/13/04
Daynes 10/19/04

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
Matrix: SOLID
Test: NWTPH-GX TPH Gasoline Range

SAF Number: F03-025
Sample Date: 08/25/04
Receive Date:08/25/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040001540									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Total Pet. Hydrocarbons Gas	TPHGASOLINE	<250	n/a	RPD	08/31/04	0.000	20.000	U
MS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	8100	112.500	% Recov	08/31/04	50.000	150.000	
MSD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	8200	113.889	% Recov	08/31/04	50.000	150.000	
SPK-RPD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	113.889	1.227	RPD	08/31/04	0.000	20.000	
BATCH QC									
BLANK	Total Pet. Hydrocarbons Gas	TPHGASOLINE	<250	n/a	mg/L	08/31/04	0.000	300.000	U
LCS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	7500	108.696	% Recov	08/31/04	85.000	115.000	

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REVISED
10/13/04
Dayles 10/19/04

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
Matrix: SOLID
Test: Uranium Isotopics by AEA

SAF Number: F03-025
Sample Date: 08/18/04
Receive Date:08/24/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040001537									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Uranium-238	U-238	2.5e+02	7.692	RPD	09/26/04	0.000	20.000	
BATCH QC									
BLANK	Uranium-238	24678-82-8	4.2e-01	0.420	pCi/g	09/26/04	-10.000	1000.000	
LCS	Uranium-238	24678-82-8	2.1e+01	110.789	% Recov	09/26/04	75.000	125.000	

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REVISED 10/13/04
DGeyles 10/19/04

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
Matrix: SOLID
Test: Americium by AEA

SAF Number: F03-025
Sample Date: 08/18/04
Receive Date:08/24/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040001537									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Americium-241	14596-10-2	3.1e+01	21.429	RPD	09/26/04	0.000	20.000	*
BATCH QC									
BLANK	Americium-241	14596-10-2	-1.1e-01	-0.110	pCi/g	09/26/04	-10.000	1000.000	
LCS	Americium-241	14596-10-2	12.63	98.046	% Recov	09/26/04	75.000	125.000	

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REVISED 10/13/04
Dayes 10/19/04

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
Matrix: SOLID
Test: Plutonium Isotopics by AEA

SAF Number: F03-025
Sample Date: 08/18/04
Receive Date:08/24/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040001537									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Pu-239/240 by AEA	PU-239/240	9.5e+01	19.653	RPD	09/26/04	0.000	20.000	
BATCH QC									
BLANK	Pu-239/240 by AEA	PU-239/240	2.3e-01	0.230	pCi/g	09/26/04	-10.000	1000.000	
LCS	Pu-239/240 by AEA	PU-239/240	11.31	91.951	% Recov	09/26/04	75.000	125.000	

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REVISED
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Daynes 10/19/04

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041462
Matrix: SOLID
Test: Neptunium by AEA

SAF Number: F03-025
Sample Date: 08/18/04
Receive Date:08/24/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040001537									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Neptunium-237	13994-20-2	3.1e-02	92.174	RPD	09/27/04	0.000	25.000	*
BATCH QC									
BLANK	Neptunium-237	13994-20-2	8.3e-03	0.008	pCi/g	09/26/04	-10.000	1000.000	
LCS	Neptunium-237	13994-20-2	4.5e+01	45.000	% Recov	09/26/04	75.000	125.000	*

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M8141-SLF-04-265

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

9/23/04

ACKNOWLEDGMENT OF SAMPLES RECEIVED

File KB

Groundwater Remediation Program

Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 119143/ES10
Group#: 20041462
Project#: F03-025
Proj Mgr: Steve Trent A0-21
Phone: 373-5869

The following samples were received from you on 08/24/04. 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
W040001537	B191F3	TRENT	Solid, or handle as if solid	08/18/04
		@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		

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

FLUOR Hanford Inc. 9/23	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F03-025-095	PAGE 1 OF 2
COLLECTOR Pope/Pfister/Wiberg/Tyra	COMPANY CONTACT TRENT, STEVE	TELEPHONE NO. 373-5689	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N AIR QUALITY ☐	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION 216-S-20; ~~36.00-37.5R~~ 32.5' 35'	PROJECT DESIGNATION 200-LW-1/LW-2 Characterization - Soil		SAF NO. F03-025		
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=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: N/A

20041462

SPECIAL HANDLING AND/OR STORAGE: N/A

B191H3

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										
B191F3	SOIL	8/18/04	1125	X	X	X	X	X	X	X			
W04000 1537													

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM R. PFISTER/[signature] S-20 8/18/04	DATE/TIME 1200	RECEIVED BY/STORED IN SITE FRIG S-20 8/18/04	DATE/TIME 1200
RELINQUISHED BY/REMOVED FROM SITE FRIG S-20 8/24/04	DATE/TIME 0920	RECEIVED BY/STORED IN R. PFISTER/[signature] 8/24/04	DATE/TIME 0920
RELINQUISHED BY/REMOVED FROM R. PFISTER/[signature] 8/24/04	DATE/TIME 0942	RECEIVED BY/STORED IN [signature] 8/24/04	DATE/TIME 0942
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

FLUOR Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F03-025-095	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 8-10-04 216-S-20; ~~[illegible]~~ 32.5' - 35'	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 119143E510	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) TMB 8-4-04
(4)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Gamma Spec - Add-on ~~(Antimony-125, Cesium-134)~~ 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)