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Memorandum

W1141-SLF-04-196

To: S. J. Trent A0-21 Date: June 17, 2004

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

cc:

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

Subject: Revised Dayes 7/6/04
FINAL RESULTS FOR 216-Z-9/C3426 TRENCH CHARACTERIZATION BOREHOLE – SAMPLE DELIVERY GROUP WSCF20040719 – SAF NUMBER F03-018

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

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

This letter contains the revised VOA analytical results for sample delivery group WSCF20040719. Please replace the following pages: 2-6, 2-7 and 2-9. The original report VOA analysis was not reported in dry weight concentration.

SLF/grf

Attachment

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W1141-SLF-04-187

ATTACHMENT 1

NARRATIVE

Consisting of 5 pages
Not including cover page

Sample Delivery Group	**WSCF20040719**
Sample Matrix	**SOIL**
Sample Visual	**N/A**
SAF Number	**F03-018**
Data Deliverable	**Summary Report**

Introduction

Two (2) samples (B18XT1 and B17N63) from 216-Z-9/C3426 were received at the WSCF Laboratory on May 3, 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 (Mercury and Uranium only). 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/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 600/R-94-111 300. 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.

- pH by EPA SW-846 9045C. Analytical work was performed with no deviations to the approved method.

- All RadChem analyses (AEA; GEA, Gross Alpha/Beta) were run by internal WDOE accredited WSCF procedures. Analytical work was performed with no deviations to the approved method.

Comments

ICP-MS Metals – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See page 2-18 for QC details. All QC controls are within the established limits.

ICP-AES Metals –The hold time for this analysis was met. A Blank and Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 2-38 through 2-42 for QC details. Analytical Notes:

- The laboratory control sample Silver and Antimony recovery were slightly outside WSCF's established limits, but within the Manufactures acceptance limits.

- Silver, Antimony and Bismuth results were flagged E (estimated) due to low Matrix Spike and Matrix Spike Duplicate recoveries.

- Aluminum, Calcium, Iron, Magnesium, and Sodium Spike recoveries are reported as n/a due to insufficient spike concentration.

- The RPD slightly exceeded established limits between the Matrix Spike and Matrix Spike Duplicate for Chromium.

All other QC controls are within the established limits.

PCBs- The hold time for this analysis were met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 2-30 and 2-31 for QC details. Analytical Notes: Aroclor-1260 Matrix spike and Matrix Spike Duplicate recoveries were below established limits. The sample was re-prepped and analyzed. The MS and MSD recoveries still were below limits, determined to be a matrix effect. All other QC controls are within the established limits.

Anions –The hold time(s) for this analysis was met. A beginning and ending Blank and Laboratory Control Sample were analyzed with each delivery group per GRP Letter of Instruction. See pages 2-20 through 2-21 for QC details. Analytical Note: The Phosphate result was flagged U (under detection limit) and E (estimate) due to the low Matrix Spike and Matrix Spike Duplicate recovery indicating a matrix effect on the sample. 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 2-22 through 2-27 for QC details. All other QC controls are within the established limits.

TPHD-WA- The hold time for this analysis were met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 2-28 for QC details. Analytical Note:

- The Matrix Spike recovery for Diesel was slightly below established limits.
- The ortho-Terphenyl surrogate and Diesel Matrix Spike relative percent difference also slightly exceed the establish limits. The sample results were below detection limits and not flagged.

All other QC controls are within the established limits.

VOA – The hold time for this analysis were met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 2-43 through 2-45 for QC details. Analytical Notes: J-flag of a target compounds indicates that it was found at a concentration below the lowest calibration standard, but above the method detection limit concentration. All QC controls are within the established limits.

CN – The hold time for this analysis was met. A beginning and ending Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See page 2-29 for QC details. All QC controls are within the established limits.

Ammonia - The hold time for this analysis was met. A beginning and ending Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See page 2-37 for QC details. Analytical Notes: The ammonium result was flagged E (estimate) due to the low Matrix Spike and Matrix Spike Duplicate recovery indicating a matrix effect on the sample. All other QC controls are within the established limits.

Percent Solids – No hold time exists for this analysis. Organic Analyses; sample concentrations were corrected for moisture.

pH – The analysis was performed ASAP; 28.5 hours after sampling. Analytical Note: Group related quality control samples are not performed on pH samples.

RadChem – There are no hold times associated with these WDOE accredited methods. A Blank, Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 2-19 and 2-32 through 2-36 for QC details. Analytical Notes:

- The sample was batched with GRP Sample Delivery Group 20040704. Duplicate samples were run on Client sample #B17N60.
- The Neptunium-237 result was J (estimate) flagged due to low Laboratory Control Sample recovery.
- Plutonium-239/240: The duplicate is flagged but the sample is below Minimum Detectable Activity and was not flagged.
- Tentatively Identified Compounds: - Americium-241 was detected in both the Sample and Duplicate.
- Gross Alpha/Beta: The Duplicate exceeds established limits which could be attributed to a non-homogeneous sample aliquot.

All other quality controls are within the established limits.

Sample Number	Lab Sample ID	Isotope	Tracer Recovery (Percent)
BLANK		Am-243	74.92
LCS		Am-243	72.08
B17N63	W040000471	Am-243	72.43
DUPLICATE B17N60	W040000464	Am-243	77.89
BLANK		Pu-242	75.56
LCS		Pu-242	82.02
B17N63	W040000471	Pu-242	78.42
DUPLICATE B17N60	W040000464	Pu-242	100.03

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

Herlene S. Rich
WSCF Production Control

Abbreviations

Hg – mercury
IC – ion chromatography
ICP – inductively coupled plasma
ICP/AES – ICP/atomic emission spectroscopy
ICP/MS – ICP/mass spectrometry
Total U – total uranium
AT/TB – total alpha/total beta
AEA – Alpha Energy Analysis
WTPH-G – Total Hydrocarbons-Gasoline
Am – americium
Cm - curium
Pu – plutonium
Np – neptunium
GEA – gamma energy analysis
H3 – Tritium
Sr – Strontium 89, 90
WTPH-D – Total Hydrocarbons-Diesel
TSS – Total Suspended Solids

WSCF
ANALYTICAL RESULTS REPORT

for

Groundwater Remediation Program

Richland, WA 99352

Attention: Steve Trent

Analytical: _____

Client Services: _____

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

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

Contract#: FH-EIS-2003-MEM-001
Report#: WSCF20040719
Report Date: 1-jun-2004
Report WGPP/ver. 1
Groundwater Remediation Program

000008 2-1

W1141-SLF-04-187

ATTACHMENT 2

ANALYTICAL RESULTS

Consisting of 45 pages
Not including cover page

WSCF
ANALYTICAL RESULTS REPORT

2-2

Attention: Steve Trent
Project: F03-018: F03-018

Group #: WSCF20040719

Sample #	Client ID			CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
Organic															
W040000471	B17N63	GRP	TRENT	12674-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	12672-29-6	Aroclor-1248	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 680	ug/kg	1.00	6.8e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 330	ug/kg	1.00	3.3e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 100	ug/kg	1.00	1.0e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 310	ug/kg	1.00	3.1e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 310	ug/kg	1.00	3.1e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	100-01-6	4-Nitroaniline	SOIL	LA-523-456	U	< 260	ug/kg	1.00	2.6e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	101-55-3	4-Bromophenylphenyl ether	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	105-67-9	2,4-Dimethylphenol	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	106-47-8	4-Chloroaniline	SOIL	LA-523-456	U	< 98.0	ug/kg	1.00	98	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	108-60-1	Bis(2-chloro-1-methylethyl)eth	SOIL	LA-523-456	U	< 270	ug/kg	1.00	2.7e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	111-44-4	Bis(2-chloroethyl) ether	SOIL	LA-523-456	U	< 260	ug/kg	1.00	2.6e+02	05/12/04	05/03/04	05/03/04

MDL=Minimum Detection Limit
RQ=Result Qualifier

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

DF=Dilution Factor

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

WSCF
ANALYTICAL RESULTS REPORT

2-3

Attention: Steve Trent
Project: F03-018: F03-018

Group #: WSCF2040719

Sample #	Client ID			CAS #	Test Performed	Matrix	WSCF Method	RQ		Result	Unit	DF	MDL	Analyze	Sample	Receive
W040000471	B17N63	GRP	TRENT	111-91-1	Bis(2-Chloroethoxy)methane	SOIL	LA-523-456	U	<	120	ug/kg	1.00	1.2e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	117-81-7	Bis(2-ethylhexyl) phthalate	SOIL	LA-523-456	U	<	590	ug/kg	1.00	5.9e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	117-84-0	Di-n-octylphthalate	SOIL	LA-523-456	U	<	70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	118-74-1	Hexachlorobenzene	SOIL	LA-523-456	U	<	70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	120-12-7	Anthracene	SOIL	LA-523-456	U	<	70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	120-83-2	2,4-Dichlorophenol	SOIL	LA-523-456	U	<	84.0	ug/kg	1.00	84	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	131-11-3	Dimethyl phthalate	SOIL	LA-523-456	U	<	70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	132-64-9	Dibenzofuran	SOIL	LA-523-456	U	<	70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	191-24-2	Benzo(ghi)perylene	SOIL	LA-523-456	U	<	70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	193-39-5	Indeno(1,2,3-cd)pyrene	SOIL	LA-523-456	U	<	70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	205-99-2	Benzo(b)fluoranthene	SOIL	LA-523-456	U	<	70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	206-44-0	Fluoranthene	SOIL	LA-523-456	U	<	70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	207-08-9	Benzo(k)fluoranthene	SOIL	LA-523-456	U	<	70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	208-96-8	Acenaphthylene	SOIL	LA-523-456	U	<	84.0	ug/kg	1.00	84	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	218-01-9	Chrysene	SOIL	LA-523-456	U	<	70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	50-32-8	Benzo(a)pyrene	SOIL	LA-523-456	U	<	70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	51-28-5	2,4-Dinitrophenol	SOIL	LA-523-456	U	<	700	ug/kg	1.00	7.0e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	53-70-3	Dibenz[a,h]anthracene	SOIL	LA-523-456	U	<	70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	534-52-1	4,6-Dinitro-2-methylphenol	SOIL	LA-523-456	U	<	700	ug/kg	1.00	7.0e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	541-73-1	1,3-Dichlorobenzene	SOIL	LA-523-456	U	<	340	ug/kg	1.00	3.4e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	56-55-3	Benzo(a)anthracene	SOIL	LA-523-456	U	<	70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	606-20-2	2,6-Dinitrotoluene	SOIL	LA-523-456	U	<	70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7005-72-3	4-Chlorophenylphenyl ether	SOIL	LA-523-456	U	<	70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	77-47-4	Hexachlorocyclopentadiene	SOIL	LA-523-456	U	<	330	ug/kg	1.00	3.3e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	78-59-1	Isophorone	SOIL	LA-523-456	U	<	70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	84-66-2	Diethylphthalate	SOIL	LA-523-456	U	<	200	ug/kg	1.00	2.0e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	84-74-2	Di-n-butylphthalate	SOIL	LA-523-456	U	<	91.0	ug/kg	1.00	91	05/12/04	05/03/04	05/03/04

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U - Analyzed for but not detected above limiting criteria.
J - Analyte is an estimate, has potentially larger errors

DF=Dilution Factor

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

WSCF
ANALYTICAL RESULTS REPORT

2-4

Attention: Steve Trent
Project: F03-018: F03-018

Group #: WSCF20040719

Sample #	Client ID			CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W040000471	B17N63	GRP	TRENT	85-01-8	Phenanthrene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	85-68-7	Butylbenzylphthalate	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	86-30-6	N-Nitrosodiphenylamine	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	86-73-7	Fluorene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	86-74-8	Carbazole	SOIL	LA-523-456	U	< 84.0	ug/kg	1.00	84	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	87-68-3	Hexachlorobutadiene	SOIL	LA-523-456	U	< 380	ug/kg	1.00	3.8e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	88-74-4	2-Nitroaniline	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	88-75-5	2-Nitrophenol	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.8e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	91-20-3	Naphthalene	SOIL	LA-523-456	U	< 300	ug/kg	1.00	3.0e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	91-57-6	2-Methylnaphthalene	SOIL	LA-523-456	U	< 190	ug/kg	1.00	1.9e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	91-58-7	2-Chloronaphthalene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	91-94-1	3,3'-Dichlorobenzidine	SOIL	LA-523-456	U	< 84.0	ug/kg	1.00	84	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	95-48-7	2-Methylphenol (cresol, o-)	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	95-50-1	1,2-Dichlorobenzene	SOIL	LA-523-456	U	< 380	ug/kg	1.00	3.8e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	95-95-4	2,4,5-Trichlorophenol	SOIL	LA-523-456	U	< 77.0	ug/kg	1.00	77	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	98-95-3	Nitrobenzene	SOIL	LA-523-456	U	< 270	ug/kg	1.00	2.7e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	99-09-2	3-Nitroaniline	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	65794-96-9	3 & 4 Methylphenol Total	SOIL	LA-523-456	U	< 120	ug/kg	1.00	1.2e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	67-72-1	Hexachloroethane	SOIL	LA-523-456	U	< 490	ug/kg	1.00	4.9e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	88-06-2	2,4,6-Trichlorophenol	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	108-94-1	Cyclohexanone	SOIL	LA-523-456	U	< 350	ug/kg	1.00	3.5e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	95-63-6	1,2,4-Trimethylbenzene	SOIL	LA-523-456	U	< 130	ug/kg	1.00	1.3e+02	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	79-01-6	Trichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04

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WSCF
ANALYTICAL RESULTS REPORT

2-5

Attention: Steve Trent
Project: F03-018: F03-018

Group #: WSCF20040719

Sample #	Client ID			CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W040000471	B17N63	GRP	TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	100-42-5	Styrene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	10061-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	10061-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	107-06-2	1,2-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	540-59-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	56-23-5	Carbon tetrachloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	591-78-6	2-Hexanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	67-64-1	Acetone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	67-66-3	Chloroform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	71-55-6	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	74-83-9	Bromomethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	74-87-3	Chloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	75-00-3	Chloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	75-25-2	Bromoform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04

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WSCF
ANALYTICAL RESULTS REPORT

2-6

Attention: Steve Trent
Project: F03-018: F03-018

Group #: WSCF20040719

Sample #	Client ID			CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W040000471	B17N63	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	71-36-3	1-Butanol	SOIL	LA-523-455	U	< 42.0	ug/kg	1.00	42	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	110-54-3	Hexane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	104-51-8	n-Butylbenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	156-60-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	75-05-8	Acetonitrile	SOIL	LA-523-455	U	< 4.20	ug/kg	1.00	4.2	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	156-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	79-01-6	Trichloroethene	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	100-42-5	Styrene	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	10061-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	10061-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	107-06-2	1,2-Dichloroethane	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	540-59-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	56-23-5	Carbon tetrachloride	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F03-018: F03-018

Group #: WSCF20040719

Sample #	Client ID			CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W040000473	B18XT1	GRP	TRENT	591-78-6	2-Hexanone	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	67-64-1	Acetone	SOIL	LA-523-455		250	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	67-66-3	Chloroform	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	71-55-6	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	74-83-9	Bromomethane	SOIL	LA-523-455	J	14.0	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	74-87-3	Chloromethane	SOIL	LA-523-455		51.0	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	75-00-3	Chloroethane	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455	J	9.40	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	75-25-2	Bromoform	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	110-54-3	Hexane	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	104-51-8	n-Butylbenzene	SOIL	LA-523-455	U	< 5.00	ug/kg	1.00	5.0	05/13/04	05/03/04	05/03/04
W040000473	B18XT1	GRP	TRENT	75-05-8	Acetonitrile	SOIL	LA-523-455	U	< 10.0	ug/kg	1.00	10	05/13/04	05/03/04	05/03/04

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WSCF
ANALYTICAL RESULTS REPORT

2-8

Attention: Steve Trent
Project: F03-018: F03-018

Group #: WSCF20040719

Sample #	Client ID			CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
Inorganic															
W040000471	B17N63	GRP	TRENT	57-12-5	Cyanide	SOIL	LA-695-402	U	< 0.200	mg/kg	1.00	0.20	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	NH4-N	Nitrogen in ammonium	SOIL	LA-503-401	E	7.91	mg/kg	49.00	0.20	05/14/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	TS	Total solids	SOIL	LA-519-412		95.0	%	1.00	0.0	05/05/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	PH	pH Measurement	SOIL	LA-212-411		8.32	pH	1.00	0.010	05/04/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	16984-48-8	Fluoride	SOIL	LA-533-410		5.42	mg/kg	51.00	1.2	05/10/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	16887-00-6	Chloride	SOIL	LA-533-410		19.3	mg/kg	51.00	2.7	05/10/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	NO2-N	Nitrogen in Nitrite	SOIL	LA-533-410	U	< 0.969	mg/kg	51.00	0.97	05/10/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	NO3-N	Nitrogen in Nitrate	SOIL	LA-533-410		32.3	mg/kg	1.01e+002	1.3	05/11/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	14265-44-2	Phosphate	SOIL	LA-533-410	EU	< 2.75	mg/kg	51.00	2.8	05/10/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	14808-79-8	Sulfate	SOIL	LA-533-410		34.2	mg/kg	51.00	5.1	05/10/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7429-90-5	Aluminum	SOIL	LA-505-411		1.31e+04	mg/kg	1.00e+002	2.5e+02	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7439-89-6	Iron	SOIL	LA-505-411		3.70e+04	mg/kg	1.00e+002	1.5e+02	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7439-95-4	Magnesium	SOIL	LA-505-411		6.93e+03	mg/kg	1.00e+002	1.8e+02	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7439-96-5	Manganese	SOIL	LA-505-411		373	mg/kg	1.00	0.043	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7440-02-0	Nickel	SOIL	LA-505-411		72.9	mg/kg	1.00	0.16	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7440-09-7	Potassium	SOIL	LA-505-411		833	mg/kg	10.00	89	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7440-22-4	Silver	SOIL	LA-505-411	E	1.71	mg/kg	1.00	0.12	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7440-23-5	Sodium	SOIL	LA-505-411		2.66e+03	mg/kg	10.00	1.5e+02	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7440-36-0	Antimony	SOIL	LA-505-411	E	1.52	mg/kg	1.00	0.54	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7440-39-3	Barium	SOIL	LA-505-411		96.3	mg/kg	1.00	0.013	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7440-43-9	Cadmium	SOIL	LA-505-411	U	< 0.0750	mg/kg	1.00	0.075	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7440-47-3	Chromium	SOIL	LA-505-411		162	mg/kg	1.00	0.20	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7440-48-4	Cobalt	SOIL	LA-505-411		17.1	mg/kg	1.00	0.092	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7440-50-8	Copper	SOIL	LA-505-411		15.2	mg/kg	1.00	0.070	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7440-62-2	Vanadium	SOIL	LA-505-411		105	mg/kg	1.00	0.18	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7440-66-6	Zinc	SOIL	LA-505-411		54.2	mg/kg	1.00	0.26	05/27/04	05/03/04	05/03/04

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F03-018: F03-018

Group #: WSCF20040719

Sample #	Client ID			CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W040000471	B17N63	GRP	TRENT	7440-70-2	Calcium	SOIL	LA-505-411		2.90e+04	mg/kg	1.00e+002	1.2e+02	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7439-92-1	Lead	SOIL	LA-505-411		11.8	mg/kg	1.00	0.063	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7439-93-2	Lithium	SOIL	LA-505-411		6.14	mg/kg	1.00	0.10	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7440-24-6	Strontium	SOIL	LA-505-411		83.2	mg/kg	1.00	0.10	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7440-38-2	Arsenic	SOIL	LA-505-411		2.66	mg/kg	1.00	1.2	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7440-41-7	Beryllium	SOIL	LA-505-411		0.395	mg/kg	1.00	5.0e-03	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7440-69-9	Bismuth	SOIL	LA-505-411	EU	< 5.00	mg/kg	1.00	5.0	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7723-14-0	Phosphorus	SOIL	LA-505-411		973	mg/kg	10.00	3.0	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7782-49-2	Selenium	SOIL	LA-505-411		3.76	mg/kg	1.00	1.0	05/27/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7439-97-6	Mercury	SOIL	LA-505-412	U	< 9.86e-03	mg/kg	9.86	9.9e-03	05/10/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	7440-61-1	Uranium	SOIL	LA-505-412		0.667	mg/kg	9.86	0.16	05/10/04	05/03/04	05/03/04

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WSCF
ANALYTICAL RESULTS REPORT

2-10

Attention: Steve Trent
Project: F03-018: F03-018

Group #: WSCF20040719

Sample #	Client ID			CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
Radiochemistry															
W040000471	B17N63	GRP	TRENT	14596-10-2	Americium-241	SOIL	LA-508-471		190	pCi/g	1.00	1.2	05/19/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	E,T,C	Am-241 by AEA Total Cntg Error	SOIL	LA-508-471		+- 30	pCi/g	1.00	0.0	05/19/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	14234-35-6	Antimony-125	SOIL	LA-508-481	U	-0.0568	pCi/g	1.00	0.19	05/05/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	E,T,C	Sb-125 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 0.11	pCi/g	1.00	0.0	05/05/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	10198-40-0	Cobalt-60	SOIL	LA-508-481	U	-4.09e-04	pCi/g	1.00	0.091	05/05/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 4.1e-03	pCi/g	1.00	0.0	05/05/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	13967-70-9	Cesium-134	SOIL	LA-508-481	U	0.0252	pCi/g	1.00	0.098	05/05/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	E,T,C	Cs-134 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 0.053	pCi/g	1.00	0.0	05/05/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	10045-97-3	Cesium-137	SOIL	LA-508-481		0.268	pCi/g	1.00	0.081	05/05/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	E,T,C	Cs-137 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 0.11	pCi/g	1.00	0.0	05/05/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	14683-23-9	Europium-152	SOIL	LA-508-481	U	-0.182	pCi/g	1.00	0.22	05/05/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 0.18	pCi/g	1.00	0.0	05/05/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	15585-10-1	Europium-154	SOIL	LA-508-481	U	0.121	pCi/g	1.00	0.27	05/05/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 0.14	pCi/g	1.00	0.0	05/05/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	14391-16-3	Europium-155	SOIL	LA-508-481	U	0.100	pCi/g	1.00	0.25	05/05/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	E,T,C	Eu-155 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 0.17	pCi/g	1.00	0.0	05/05/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	12587-46-1	Gross alpha	SOIL	LA-508-415		220	pCi/g	1.00	7.7	05/14/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	E,T,C	Gross Alpha Method Error	SOIL	LA-508-415		+- 33	pCi/g	1.00	0.0	05/14/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	12587-47-2	Gross beta	SOIL	LA-508-415		25.0	pCi/g	1.00	8.7	05/14/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	E,T,C	Gross Beta Method Error	SOIL	LA-508-415		+- 7.5	pCi/g	1.00	0.0	05/14/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	13994-20-2	Neptunium-237	SOIL	LA-508-471	J	2.90	pCi/g	1.00	0.073	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	E,T,C	Np-237 by AEA Total Ctng Error	SOIL	LA-508-471		+- 0.58	pCi/g	1.00	0.0	05/12/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	13981-16-3	Plutonium-238	SOIL	LA-508-471		1.60	pCi/g	1.00	0.25	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	E,T,C	Pu-238 by AEA Total Cntg Error	SOIL	LA-508-471		+- 0.50	pCi/g	1.00	0.0	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	PU-239/240	Pu-239/240 by AEA	SOIL	LA-508-471		4.40	pCi/g	1.00	0.086	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err	SOIL	LA-508-471		+- 1.2	pCi/g	1.00	0.0	05/13/04	05/03/04	05/03/04

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WSCF
ANALYTICAL RESULTS REPORT

2-11

Attention: Steve Trent
Project: F03-018: F03-018

Group #: WSCF20040719

Sample #	Client ID			CAS #	Test Performed	Matrix	WSCF Method	RQ		Result	Unit	DF	MDL	Analyze	Sample	Receive
W040000471	B17N63	GRP	TRENT	U-233/234	Uranium-233/234	SOIL	LA-508-471			0.690	pCi/g	1.00	0.078	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	E,T,C	U-233/234 AEA Total Cntg Error	SOIL	LA-508-471		+-	0.23	pCi/g	1.00	0.0	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	15117-96-1	Uranium-235	SOIL	LA-508-471			0.130	pCi/g	1.00	0.085	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	E,T,C	U-235 by AEA Total Cntg Error	SOIL	LA-508-471		+-	0.086	pCi/g	1.00	0.0	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	U-238	Uranium-238	SOIL	LA-508-471			0.670	pCi/g	1.00	0.078	05/13/04	05/03/04	05/03/04
W040000471	B17N63	GRP	TRENT	E,T,C	U-238 by AEA Total Cntg Error	SOIL	LA-508-471		+-	0.23	pCi/g	1.00	0.10	05/13/04	05/03/04	05/03/04

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WSCF
ANALYTICAL COMMENT REPORT

2-12

Attention: Steve Trent
Project Number F03-018

Group #: WSCF20040719

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		W040000471 Sample and Dup Am-241 detected at 210 pCi/g GEA SVOA: Sample concentrations have been corrected for moisture . den PCB: Matrix spike and spike duplicate recoveries were low, so the prep and analysis was repeated. The MS and MSD recoveries are still low so the cause is a matrix effect. The LCS recovery is in control demonstrating method control. cgc TPH-D: The Recovery for Deisel and Surrogate were low and slightly low, in the MS, respectively. Hence the SPK-RPD is out high for these two compounds. cgc W040471/alpha/beta:The dup is flagged because the sample is not homogeneous. W040471/Pu239:The dup is flagged but the sample is below MDC ICP-AES: LCS recoveries all withing manufacturer's specifications. Matrix spike recoveries were low for Silver, Antimony and Bismuth and the sample results for these elements are estimated ("E" flagged). The spike levels were insufficient for the high levels of the following elements in the sample: Aluminum, Calcium, Iron, Magnesium and Sodium. ldl/wwb

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

2-13

Attention: Steve Trent
Project Number F03-018 :F03-018

Group #: WSCF20040719

Sample #	Client ID			Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W040000471	B17N63	GRP	TRENT	Gamma Energy Analysis-grd H2O	BI-214				0.47	pCi/g
W040000471	B17N63	GRP	TRENT	Gamma Energy Analysis-grd H2O	RA-226				0.47	pCi/g
W040000471	B17N63	GRP	TRENT	Gamma Energy Analysis-grd H2O	PB-214				0.60	pCi/g
W040000471	B17N63	GRP	TRENT	Gamma Energy Analysis-grd H2O	AM-241 Count Error				14	%
W040000471	B17N63	GRP	TRENT	Gamma Energy Analysis-grd H2O	AM-241				2.1e+02	pCi/g
W040000471	B17N63	GRP	TRENT	Gamma Energy Analysis-grd H2O	K-40 Count Error				23	%
W040000471	B17N63	GRP	TRENT	Gamma Energy Analysis-grd H2O	TH-234				3.6	pCi/g
W040000471	B17N63	GRP	TRENT	Gamma Energy Analysis-grd H2O	PB-214 Count Error				33	%
W040000471	B17N63	GRP	TRENT	Gamma Energy Analysis-grd H2O	BI-214 Count Error				43	%
W040000471	B17N63	GRP	TRENT	Gamma Energy Analysis-grd H2O	RA-226 Count Error				43	%
W040000471	B17N63	GRP	TRENT	Gamma Energy Analysis-grd H2O	TH-234 Count Error				44	%
W040000471	B17N63	GRP	TRENT	Gamma Energy Analysis-grd H2O	K-40				7.5	pCi/g
W040000471	B17N63	GRP	TRENT	SW-846 8270B Semi-Vols	SMP 5.173 Unknown	Unknown	5.173816	BJ	1.8e+02	ug/kg
W040000473	B18XT1	GRP	TRENT	VOA Ground Water Protection	SMP 9.258 Unknown	Unknown	9.258933	J	36	ug/kg

RQ=Result Qualifier B - The Analyte detected in both the BLANK and the SAMPLE (org.) J - Analyte is an estimate, has potentially larger errors

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Groundwater Remediation Program

WSCF
METHOD REFERENCES REPORT

2-14

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-508-415	Operation of Protean Alpha/Beta Counters	
	None	No reference to any industry method.
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

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

WSCF
METHOD REFERENCES REPORT

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

LA-523-427	LA-523-427: POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY	
	EPA SW-846 3510C	SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION
	EPA SW-846 3545	PRESSURIZED FLUID EXTRACTION (PFE)
	EPA SW-846 3665A	SULFURIC ACID/PERMANGANATE CLEANUP
	EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
	EPA SW-846 8082	POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY
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

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.

wl3qlog v1 01-jun-2004 14:41:07

W13q Worklist/Batch/QC Report for Group# WSCF20040719

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
				SAMPLE	W040000471	Percent Solids
				SAMPLE	W040000471	pH Soil and Waste Measurement
22166	1	22540	25661	BLANK		ICP-2008 MS All possible metal
22166	3	22540	25661	LCS		ICP-2008 MS All possible metal
22166	4	22540	25661	MS	W040000471	ICP-2008 MS All possible metal
22166	5	22540	25661	MSD	W040000471	ICP-2008 MS All possible metal
22166	2	22540	25661	SAMPLE	W040000471	ICP-2008 MS All possible metal
22166	0	22540	25661	SPK-RPD	W040000471	ICP-2008 MS All possible metal
22128	1	22502	25664	BLANK		Gamma Energy Analysis-grd H2O
22128	2	22502	25664	LCS		Gamma Energy Analysis-grd H2O
22128	3	22502	25664	DUP	W040000471	Gamma Energy Analysis-grd H2O
22128	4	22502	25664	SAMPLE	W040000471	Gamma Energy Analysis-grd H2O
22189	2	22563	25678	BLANK		Anions by Ion Chromatography
22189	9	22563	25678	BLANK		Anions by Ion Chromatography
22189	3	22563	25678	LCS		Anions by Ion Chromatography
22189	5	22563	25678	DUP	W040000464	Anions by Ion Chromatography
22189	6	22563	25678	MS	W040000464	Anions by Ion Chromatography
22189	7	22563	25678	MSD	W040000464	Anions by Ion Chromatography
22189	8	22563	25678	SAMPLE	W040000471	Anions by Ion Chromatography
22202	2	22576	25691	BLANK		Anions by Ion Chromatography
22202	9	22576	25691	BLANK		Anions by Ion Chromatography
22202	3	22576	25691	LCS		Anions by Ion Chromatography
22202	5	22576	25691	DUP	W040000464	Anions by Ion Chromatography
22202	6	22576	25691	MS	W040000464	Anions by Ion Chromatography
22202	7	22576	25691	MSD	W040000464	Anions by Ion Chromatography
22189	8	22576	25691	SAMPLE	W040000471	Anions by Ion Chromatography
			25697	BLANK		SW-846 8270B Semi-Vols
			25697	LCS		SW-846 8270B Semi-Vols
			25697	MS	W040000471	SW-846 8270B Semi-Vols
			25697	MSD	W040000471	SW-846 8270B Semi-Vols
			25697	SAMPLE	W040000471	SW-846 8270B Semi-Vols
			25697	SPK-RPD	W040000471	SW-846 8270B Semi-Vols
			25697	SURR	W040000471	SW-846 8270B Semi-Vols
			25701	BLANK		WTPH-D TPH Diesel Range (Wa)
			25701	LCS		WTPH-D TPH Diesel Range (Wa)
			25701	MS	W040000471	WTPH-D TPH Diesel Range (Wa)
			25701	MSD	W040000471	WTPH-D TPH Diesel Range (Wa)
			25701	SAMPLE	W040000471	WTPH-D TPH Diesel Range (Wa)
			25701	SPK-RPD	W040000471	WTPH-D TPH Diesel Range (Wa)
			25701	SURR	W040000471	WTPH-D TPH Diesel Range (Wa)
			25703	BLANK		Cyanide by Midi/Spectrophotom
			25703	BLNK-PREP		Cyanide by Midi/Spectrophotom
			25703	LCS		Cyanide by Midi/Spectrophotom
			25703	LCS-2		Cyanide by Midi/Spectrophotom
			25703	MS	W040000471	Cyanide by Midi/Spectrophotom
			25703	MSD	W040000471	Cyanide by Midi/Spectrophotom
			25703	SAMPLE	W040000471	Cyanide by Midi/Spectrophotom

			25703	SPK-RPD	W040000471	Cyanide by Midi/Spectrophotom
			25704	BLANK		PCBs complete list
			25704	LCS		PCBs complete list
			25704	MS	W040000471	PCBs complete list
			25704	MSD	W040000471	PCBs complete list
			25704	SAMPLE	W040000471	PCBs complete list
			25704	SPK-RPD	W040000471	PCBs complete list
			25704	SURR	W040000471	PCBs complete list
22208	1	22582	25711	BLANK		Neptunium by AEA
22208	2	22582	25711	LCS		Neptunium by AEA
22208	3	22582	25711	DUP	W040000464	Neptunium by AEA
22208	5	22582	25711	SAMPLE	W040000471	Neptunium by AEA
22217	1	22591	25716	BLANK		Uranium Isotopics by AEA
22217	2	22591	25716	LCS		Uranium Isotopics by AEA
22217	3	22591	25716	DUP	W040000464	Uranium Isotopics by AEA
22217	5	22591	25716	SAMPLE	W040000471	Uranium Isotopics by AEA
22168	1	22542	25719	BLANK		Gross Alpha/Gross Beta (AB32)
22168	2	22542	25719	LCS		Gross Alpha/Gross Beta (AB32)
22168	3	22542	25719	DUP	W040000464	Gross Alpha/Gross Beta (AB32)
22168	5	22542	25719	SAMPLE	W040000471	Gross Alpha/Gross Beta (AB32)
22215	1	22589	25729	BLANK		Plutonium Isotopics by AEA
22215	2	22589	25729	LCS		Plutonium Isotopics by AEA
22215	3	22589	25729	DUP	W040000464	Plutonium Isotopics by AEA
22215	5	22589	25729	SAMPLE	W040000471	Plutonium Isotopics by AEA
22265	1	22642	25799	BLANK		Americium by AEA
22265	2	22642	25799	LCS		Americium by AEA
22265	3	22642	25799	DUP	W040000464	Americium by AEA
22265	5	22642	25799	SAMPLE	W040000471	Americium by AEA
22298	2	22674	25806	BLANK		Ammonia (N) by IC
22298	9	22674	25806	BLANK		Ammonia (N) by IC
22298	3	22674	25806	LCS		Ammonia (N) by IC
22298	5	22674	25806	DUP	W040000464	Ammonia (N) by IC
22298	6	22674	25806	MS	W040000464	Ammonia (N) by IC
22298	7	22674	25806	MSD	W040000464	Ammonia (N) by IC
22298	8	22674	25806	SAMPLE	W040000471	Ammonia (N) by IC
22295	1	22671	25842	BLANK		ICP Metals Analysis, Grd H20 P
22295	2	22671	25842	LCS		ICP Metals Analysis, Grd H20 P
22295	4	22671	25842	MS	W040000471	ICP Metals Analysis, Grd H20 P
22295	5	22671	25842	MSD	W040000471	ICP Metals Analysis, Grd H20 P
22295	3	22671	25842	SAMPLE	W040000471	ICP Metals Analysis, Grd H20 P
22295	0	22671	25842	SPK-RPD	W040000471	ICP Metals Analysis, Grd H20 P
			25852	BLANK		VOA Ground Water Protection
			25852	LCS		VOA Ground Water Protection
			25852	MS	W040000471	VOA Ground Water Protection
			25852	MSD	W040000471	VOA Ground Water Protection
			25852	SAMPLE	W040000471	VOA Ground Water Protection
			25852	SPK-RPD	W040000471	VOA Ground Water Protection
			25852	SURR	W040000471	VOA Ground Water Protection
			25852	SAMPLE	W040000473	VOA Ground Water Protection
			25852	SURR	W040000473	VOA Ground Water Protection

WSCF ANALYTICAL LABORATORY QC REPORT

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SDG Number: WSCF20040719
Matrix: SOLID
Test: ICP-2008 MS All possible metal

SAF Number: F03-018
Sample Date: 05/03/04
Receive Date:05/03/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040000471									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Mercury	7439-97-6	21.22	106.100	% Recov	05/10/04	70.000	130.000	
MS	Uranium	7440-61-1	410.5328	102.633	% Recov	05/10/04	70.000	130.000	
MSD	Mercury	7439-97-6	20.95	104.750	% Recov	05/10/04	70.000	130.000	
MSD	Uranium	7440-61-1	404.4328	101.108	% Recov	05/10/04	70.000	130.000	
SPK-RPD	Mercury	7439-97-6	104.750	1.281	RPD	05/10/04	0.000	20.000	
SPK-RPD	Uranium	7440-61-1	101.108	1.497	RPD	05/10/04	0.000	20.000	
BATCH QC									
BLANK	Mercury	7439-97-6	<1e-3	n/a	ug/L	05/10/04	-0.220	0.220	U
BLANK	Uranium	7440-61-1	<1.6e-2	n/a	ug/L	05/10/04	-0.220	0.220	U
LCS	Mercury	7439-97-6	10.31	109.564	% Recov	05/10/04	75.000	114.000	
LCS	Uranium	7440-61-1	406.8	101.700	% Recov	05/10/04	89.000	107.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20040719
Matrix: SOLID
Test: Gamma Energy Analysis-grd H2O

SAF Number: F03-018
Sample Date: 05/03/04
Receive Date:05/03/04

Lab ID: W040000471

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	U5.23e-02	n/a	RPD	05/05/04	0.000	20.000	
DUP	Cesium-134	13967-70-9	U4.26e-02	n/a	RPD	05/05/04	0.000	20.000	
DUP	Cesium-137	10045-97-3	3.05e-01	12.914	RPD	05/05/04	0.000	20.000	
DUP	Europium-152	14683-23-9	U-3.45e-2	n/a	RPD	05/05/04	0.000	20.000	
DUP	Europium-154	15585-10-1	U-3.43e-2	n/a	RPD	05/05/04	0.000	20.000	
DUP	Europium-155	14391-16-3	U4.25e-02	n/a	RPD	05/05/04	0.000	20.000	
DUP	Antimony-125	14234-35-6	U-1.60e-1	n/a	RPD	05/05/04	0.000	20.000	

BATCH QC

BLANK	Cobalt-60	10198-40-0	U-6.2e-2	n/a	pCi/g	05/10/04	-10000.000	1000.000	
BLANK	Cesium-134	13967-70-9	U7.32e-4	n/a	pCi/g	05/10/04	-10000.000	1000.000	
BLANK	Cesium-137	10045-97-3	U-5.3e-3	n/a	pCi/g	05/10/04	-10000.000	1000.000	
BLANK	Europium-152	14683-23-9	U-2.3e-2	n/a	pCi/g	05/10/04	-10000.000	1000.000	
BLANK	Europium-154	15585-10-1	U-3.4e-2	n/a	pCi/g	05/10/04	-10000.000	1000.000	
BLANK	Europium-155	14391-16-3	U2.64e-2	n/a	pCi/g	05/10/04	-10000.000	1000.000	
BLANK	Antimony-125	14234-35-6	U2.65e-2	n/a	pCi/g	05/10/04	-10000.000	1000.000	
LCS	Cobalt-60	10198-40-0	4.36e+03	104.057	% Recov	05/11/04	80.000	120.000	
LCS	Cesium-137	10045-97-3	3.72e+03	103.911	% Recov	05/11/04	80.000	120.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20040719
Matrix: SOLID
Test: Anions by Ion Chromatography

SAF Number: F03-018
Sample Date: 04/21/04
Receive Date:04/30/04

Lab ID: W040000464

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
DUP	Chloride	16887-00-6	1.29e+01	0.772	RPD	05/10/04	0.000	20.000	
DUP	Fluoride	16984-48-8	4.12e+00	10.204	RPD	05/10/04	0.000	20.000	
DUP	Nitrogen in Nitrite	NO2-N	<9.50e-1	n/a	RPD	05/10/04	0.000	20.000	U
DUP	Phosphate	14265-44-2	<2.70e0	n/a	RPD	05/10/04	0.000	20.000	U
DUP	Sulfate	14808-79-8	1.36e+01	18.474	RPD	05/10/04	0.000	20.000	
MS	Chloride	16887-00-6	9.78e-01	97.800	% Recov	05/10/04	75.000	125.000	
MS	Fluoride	16984-48-8	4.29e-01	86.842	% Recov	05/10/04	75.000	125.000	
MS	Nitrogen in Nitrite	NO2-N	5.01e-01	100.200	% Recov	05/10/04	75.000	125.000	
MS	Phosphate	14265-44-2	5.26e-01	54.283	% Recov	05/10/04	75.000	125.000	*
MS	Sulfate	14808-79-8	1.84e+00	92.000	% Recov	05/10/04	75.000	125.000	
MSD	Chloride	16887-00-6	1.11e+00	111.000	% Recov	05/10/04	75.000	125.000	
MSD	Fluoride	16984-48-8	4.41e-01	89.271	% Recov	05/10/04	75.000	125.000	
MSD	Nitrogen in Nitrite	NO2-N	4.92e-01	98.400	% Recov	05/10/04	75.000	125.000	
MSD	Phosphate	14265-44-2	5.12e-01	52.838	% Recov	05/10/04	75.000	125.000	*
MSD	Sulfate	14808-79-8	1.93e+00	96.500	% Recov	05/10/04	75.000	125.000	

BATCH QC

BLANK	Chloride	16887-00-6	<5.20e-2	n/a	mg/L	05/10/04	0.000	300.000	U
BLANK	Chloride	16887-00-6	<5.20e-2	n/a	mg/L	05/10/04	0.000	300.000	U
BLANK	Fluoride	16984-48-8	<2.30e-2	n/a	mg/L	05/10/04	0.000	300.000	U
BLANK	Fluoride	16984-48-8	<2.30e-2	n/a	mg/L	05/10/04	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<1.90e-2	n/a	mg/L	05/10/04	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<1.90e-2	n/a	mg/L	05/10/04	0.000	300.000	U
BLANK	Phosphate	14265-44-2	<5.40e-2	n/a	mg/L	05/10/04	0.000	300.000	U
BLANK	Phosphate	14265-44-2	<5.40e-2	n/a	mg/L	05/10/04	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<1.00e-1	n/a	mg/L	05/10/04	0.000	300.000	U

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20040719
Matrix: SOLID
Test: Anions by Ion Chromatography

SAF Number: F03-018
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Sulfate	14808-79-8	<1.00e-1	n/a	mg/L	05/10/04	0.000	300.000	U
LCS	Chloride	16887-00-6	2.02e+02	101.000	% Recov	05/10/04	80.000	120.000	
LCS	Fluoride	16984-48-8	8.92e+01	90.375	% Recov	05/10/04	80.000	120.000	
LCS	Nitrogen in Nitrite	NO2-N	9.52e+01	95.200	% Recov	05/10/04	80.000	120.000	
LCS	Phosphate	14265-44-2	1.77e+02	91.331	% Recov	05/10/04	80.000	120.000	
LCS	Sulfate	14808-79-8	3.81e+02	95.489	% Recov	05/10/04	80.000	120.000	

Lab ID: W040000464
BATCH QC ASSOCIATED WITH SAMPLE

DUP	Nitrogen in Nitrate	NO3-N	3.29e+01	4.748	RPD	05/11/04	0.000	20.000	
MS	Nitrogen in Nitrate	NO3-N	4.32e-01	95.787	% Recov	05/11/04	75.000	125.000	
MSD	Nitrogen in Nitrate	NO3-N	4.48e-01	99.335	% Recov	05/11/04	75.000	125.000	

BATCH QC

BLANK	Nitrogen in Nitrate	NO3-N	<1.31e0	n/a	mg/L	05/11/04	0.000	300.000	U
BLANK	Nitrogen in Nitrate	NO3-N	<1.30e-2	n/a	mg/L	05/11/04	0.000	300.000	U
LCS	Nitrogen in Nitrate	NO3-N	8.78e+01	97.447	% Recov	05/11/04	80.000	120.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

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SDG Number: WSCF20040719
Matrix: SOLID
Test: SW-846 8270B Semi-Vols

SAF Number: F03-018
Sample Date: 05/03/04
Receive Date:05/03/04

Lab ID: W040000471
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	3249.9	82.700	% Recov	05/12/04	46.000	107.000	
MS	1,4-Dichlorobenzene	106-46-7	3421.2	87.100	% Recov	05/12/04	30.000	96.000	
MS	2,4-Dinitrotoluene	121-14-2	2935.0	74.700	% Recov	05/12/04	59.000	106.000	
MS	2-Fluorophenol	367-12-4	3795.9	96.600	% Recov	05/12/04	42.000	105.000	
MS	Acenaphthene	83-32-9	3231.5	82.300	% Recov	05/12/04	61.000	116.000	
MS	4-Chloro-3-methylphenol	59-50-7	4934.8	83.700	% Recov	05/12/04	61.000	106.000	
MS	2-Chlorophenol	95-57-8	5462.4	92.700	% Recov	05/12/04	66.000	106.000	
MS	N-Nitrosodi-n-dipropylamine	621-64-7	3237.6	82.400	% Recov	05/12/04	71.000	114.000	
MS	2-Fluorobiphenyl	321-60-8	3332.0	84.800	% Recov	05/12/04	56.000	122.000	
MS	Phenol	108-95-2	5201.0	88.300	% Recov	05/12/04	42.000	111.000	
MS	Nitrobenzene-d5	4165-60-0	3448.8	87.800	% Recov	05/12/04	64.000	111.000	
MS	4-Nitrophenol	100-02-7	3827.0	64.900	% Recov	05/12/04	32.000	118.000	
MS	Pentachlorophenol	87-86-5	3940.1	66.900	% Recov	05/12/04	62.000	114.000	
MS	Phenol-d5	4165-62-2	3287.6	83.700	% Recov	05/12/04	54.000	120.000	
MS	Pyrene	129-00-0	3682.2	93.700	% Recov	05/12/04	66.000	118.000	
MS	2,4,6-Tribromophenol	118-79-6	2993.1	76.200	% Recov	05/12/04	24.000	122.000	
MS	Terphenyl-d14 (7Cl)	98904-43-9	3812.8	97.100	% Recov	05/12/04	35.000	150.000	
MSD	1,2,4-Trichlorobenzene	120-82-1	3078.6	78.000	% Recov	05/12/04	46.000	107.000	
MSD	1,4-Dichlorobenzene	106-46-7	3156.3	80.000	% Recov	05/12/04	30.000	96.000	
MSD	2,4-Dinitrotoluene	121-14-2	3120.8	79.100	% Recov	05/12/04	59.000	106.000	
MSD	2-Fluorophenol	367-12-4	3443.8	87.300	% Recov	05/12/04	42.000	105.000	
MSD	Acenaphthene	83-32-9	3323.0	84.200	% Recov	05/12/04	61.000	116.000	
MSD	4-Chloro-3-methylphenol	59-50-7	4792.5	81.000	% Recov	05/12/04	61.000	106.000	
MSD	2-Chlorophenol	95-57-8	5863.0	99.000	% Recov	05/12/04	66.000	106.000	
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	3154.2	79.900	% Recov	05/12/04	71.000	114.000	
MSD	2-Fluorobiphenyl	321-60-8	3387.0	85.800	% Recov	05/12/04	56.000	122.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20040719
Matrix: SOLID
Test: SW-846 8270B Semi-Vols

SAF Number: F03-018
Sample Date: 05/03/04
Receive Date:05/03/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	Phenol	108-95-2	5046.1	85.200	% Recov	05/12/04	42.000	111.000	
MSD	Nitrobenzene-d5	4165-60-0	3250.1	82.300	% Recov	05/12/04	64.000	111.000	
MSD	4-Nitrophenol	100-02-7	4102.7	69.300	% Recov	05/12/04	32.000	118.000	
MSD	Pentachlorophenol	87-86-5	4036.9	68.200	% Recov	05/12/04	62.000	114.000	
MSD	Phenol-d5	4165-62-2	3321.7	84.200	% Recov	05/12/04	54.000	120.000	
MSD	Pyrene	129-00-0	3736.0	94.700	% Recov	05/12/04	66.000	118.000	
MSD	2,4,6-Tribromophenol	118-79-6	3068.3	77.700	% Recov	05/12/04	24.000	122.000	
MSD	Terphenyl-d14 (7Cl)	98904-43-9	3874.2	98.200	% Recov	05/12/04	35.000	150.000	
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	78.000	5.849	RPD	05/11/04	0.000	20.000	
SPK-RPD	1,4-Dichlorobenzene	106-46-7	80.000	8.498	RPD	05/11/04	0.000	20.000	
SPK-RPD	2,4-Dinitrotoluene	121-14-2	79.100	5.722	RPD	05/11/04	0.000	20.000	
SPK-RPD	2-Fluorophenol	367-12-4	87.300	10.114	RPD	05/11/04	0.000	20.000	
SPK-RPD	Acenaphthene	83-32-9	84.200	2.282	RPD	05/11/04	0.000	20.000	
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	81.000	3.279	RPD	05/11/04	0.000	20.000	
SPK-RPD	2-Chlorophenol	95-57-8	99.000	6.573	RPD	05/11/04	0.000	20.000	
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	79.900	3.081	RPD	05/11/04	0.000	20.000	
SPK-RPD	2-Fluorobiphenyl	321-60-8	85.800	1.172	RPD	05/11/04	0.000	20.000	
SPK-RPD	Phenol	108-95-2	85.200	3.573	RPD	05/11/04	0.000	20.000	
SPK-RPD	Nitrobenzene-d5	4165-60-0	82.300	6.467	RPD	05/11/04	0.000	20.000	
SPK-RPD	4-Nitrophenol	100-02-7	69.300	6.557	RPD	05/11/04	0.000	20.000	
SPK-RPD	Pentachlorophenol	87-86-5	68.200	1.925	RPD	05/11/04	0.000	20.000	
SPK-RPD	Phenol-d5	4165-62-2	84.200	0.596	RPD	05/11/04	0.000	20.000	
SPK-RPD	Pyrene	129-00-0	94.700	1.062	RPD	05/11/04	0.000	20.000	
SPK-RPD	2,4,6-Tribromophenol	118-79-6	77.700	1.949	RPD	05/11/04	0.000	20.000	
SPK-RPD	Terphenyl-d14 (7Cl)	98904-43-9	98.200	1.126	RPD	05/11/04	0.000	20.000	
SURR	2-Fluorophenol	367-12-4	3266.8	93.500	% Recov	05/12/04	42.000	105.000	
SURR	2-Fluorobiphenyl	321-60-8	3076.6	88.100	% Recov	05/12/04	56.000	122.000	
SURR	Nitrobenzene-d5	4165-60-0	3093.5	88.500	% Recov	05/12/04	64.000	111.000	
SURR	Phenol-d5	4165-62-2	2903.1	83.100	% Recov	05/12/04	54.000	120.000	
SURR	2,4,6-Tribromophenol	118-79-6	2482.2	71.000	% Recov	05/12/04	24.000	122.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20040719
Matrix: SOLID
Test: SW-846 8270B Semi-Vols

SAF Number: F03-018
Sample Date: 05/03/04
Receive Date:05/03/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SURR	Terphenyl-d14 (7Cl)	98904-43-9	3431.6	98.200	% Recov	05/12/04	35.000	150.000	
BATCH QC									
BLANK	1,2-Dichlorobenzene	95-50-1	< 360	n/a	ug/Kg	05/11/04			U
BLANK	1,2,4-Trimethylbenzene	95-63-6	< 120	n/a	ug/Kg	05/11/04			U
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 290	n/a	ug/Kg	05/11/04			U
BLANK	1,3-Dichlorobenzene	541-73-1	< 320	n/a	ug/Kg	05/11/04			U
BLANK	1,4-Dichlorobenzene	106-46-7	< 310	n/a	ug/Kg	05/11/04			U
BLANK	2,4-Dichlorophenol	120-83-2	< 80	n/a	ug/Kg	05/11/04			U
BLANK	2,4-Dinitrotoluene	121-14-2	< 67	n/a	ug/Kg	05/11/04			U
BLANK	2,4,5-Trichlorophenol	95-95-4	< 73	n/a	ug/Kg	05/11/04			U
BLANK	2,4,6-Trichlorophenol	88-06-2	< 67	n/a	ug/Kg	05/11/04			U
BLANK	2,4-Dimethylphenol	105-67-9	< 67	n/a	ug/Kg	05/11/04			U
BLANK	2,6-Dinitrotoluene	606-20-2	< 67	n/a	ug/Kg	05/11/04			U
BLANK	2-Chloronaphthalene	91-58-7	< 67	n/a	ug/Kg	05/11/04			U
BLANK	2-Fluorophenol	367-12-4	3063.7	91.900	% Recov	05/11/04	42.000	105.000	
BLANK	2-Methylnaphthalene	91-57-6	< 180	n/a	ug/Kg	05/11/04			U
BLANK	2-Methylphenol (cresol, o-)	95-48-7	< 67	n/a	ug/Kg	05/11/04			U
BLANK	2-Nitroaniline	88-74-4	< 67	n/a	ug/Kg	05/11/04			U
BLANK	2-Nitrophenol	88-75-5	< 170	n/a	ug/Kg	05/11/04			U
BLANK	3 & 4 Methylphenol Total	65794-96-9	< 110	n/a	ug/Kg	05/11/04	0.000	300.000	U
BLANK	3-Nitroaniline	99-09-2	< 67	n/a	ug/Kg	05/11/04			U
BLANK	4,6-Dinitro-2-methylphenol	534-52-1	< 670	n/a	ug/Kg	05/11/04			U
BLANK	4-Bromophenylphenyl ether	101-55-3	< 67	n/a	ug/Kg	05/11/04			U
BLANK	4-Chlorophenylphenyl ether	7005-72-3	< 67	n/a	ug/Kg	05/11/04			U
BLANK	Acenaphthene	83-32-9	< 67	n/a	ug/Kg	05/11/04			U
BLANK	Acenaphthylene	208-96-8	< 80	n/a	ug/Kg	05/11/04			U
BLANK	Anthracene	120-12-7	< 67	n/a	ug/Kg	05/11/04			U
BLANK	Bis(2-chloroethyl) ether	111-44-4	< 250	n/a	ug/Kg	05/11/04			U
BLANK	Benzo(a)anthracene	56-55-3	< 67	n/a	ug/Kg	05/11/04			U

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20040719
Matrix: SOLID
Test: SW-846 8270B Semi-Vols

SAF Number: F03-018
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Benzo(b)fluoranthene	205-99-2	< 67	n/a	ug/Kg	05/11/04			U
BLANK	Benzo(ghi)perylene	191-24-2	< 67	n/a	ug/Kg	05/11/04			U
BLANK	Benzo(a)pyrene	50-32-8	< 67	n/a	ug/Kg	05/11/04			U
BLANK	Bis(2-Chloroethoxy)methane	111-91-1	< 110	n/a	ug/Kg	05/11/04			U
BLANK	Bis(2-ethylhexyl) phthalate	117-81-7	< 560	n/a	ug/Kg	05/11/04			U
BLANK	Bis(2-chloro-1-methylethyl)eth	108-60-1	< 250	n/a	ug/Kg	05/11/04	0.000	10.000	U
BLANK	Benzo(k)fluoranthene	207-08-9	< 67	n/a	ug/Kg	05/11/04			U
BLANK	Butylbenzylphthalate	85-68-7	< 67	n/a	ug/Kg	05/11/04			U
BLANK	Carbazole	86-74-8	< 80	n/a	ug/Kg	05/11/04			U
BLANK	4-Chloroaniline	106-47-8	< 93	n/a	ug/Kg	05/11/04			U
BLANK	4-Chloro-3-methylphenol	59-50-7	< 67	n/a	ug/Kg	05/11/04			U
BLANK	2-Chlorophenol	95-57-8	< 150	n/a	ug/Kg	05/11/04			U
BLANK	Chrysene	218-01-9	< 67	n/a	ug/Kg	05/11/04			U
BLANK	Cyclohexanone	108-94-1	< 330	n/a	ug/Kg	05/11/04	0.000	10.000	U
BLANK	3,3'-Dichlorobenzidine	91-94-1	< 80	n/a	ug/Kg	05/11/04			U
BLANK	Dibenz[a,h]anthracene	53-70-3	< 67	n/a	ug/Kg	05/11/04			U
BLANK	Dibenzofuran	132-64-9	< 67	n/a	ug/Kg	05/11/04			U
BLANK	Di-n-butylphthalate	84-74-2	< 87	n/a	ug/Kg	05/11/04			U
BLANK	Diethylphthalate	84-66-2	< 190	n/a	ug/Kg	05/11/04			U
BLANK	Dimethyl phthalate	131-11-3	< 67	n/a	ug/Kg	05/11/04			U
BLANK	2,4-Dinitrophenol	51-28-5	< 670	n/a	ug/Kg	05/11/04			U
BLANK	Di-n-octylphthalate	117-84-0	< 67	n/a	ug/Kg	05/11/04			U
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 67	n/a	ug/Kg	05/11/04			U
BLANK	2-Fluorobiphenyl	321-60-8	3052.3	91.600	% Recov	05/11/04	56.000	122.000	
BLANK	Fluorene	86-73-7	< 67	n/a	ug/Kg	05/11/04			U
BLANK	Fluoranthene	206-44-0	< 67	n/a	ug/Kg	05/11/04			U
BLANK	Hexachlorobenzene	118-74-1	< 67	n/a	ug/Kg	05/11/04			U
BLANK	Hexachlorobutadiene	87-68-3	< 370	n/a	ug/Kg	05/11/04			U
BLANK	Hexachlorocyclopentadiene	77-47-4	< 310	n/a	ug/Kg	05/11/04			U
BLANK	Hexachloroethane	67-72-1	< 470	n/a	ug/Kg	05/11/04			U

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20040719
Matrix: SOLID
Test: SW-846 8270B Semi-Vols

SAF Number: F03-018
Sample Date:
Receive Date:

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QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Indeno(1,2,3-cd)pyrene	193-39-5	< 67	n/a	ug/Kg	05/11/04			U
BLANK	Isophorone	78-59-1	< 67	n/a	ug/Kg	05/11/04			U
BLANK	Phenol	108-95-2	< 100	n/a	ug/Kg	05/11/04			U
BLANK	Naphthalene	91-20-3	< 290	n/a	ug/Kg	05/11/04			U
BLANK	Nitrobenzene-d5	4165-60-0	3002.6	90.100	% Recov	05/11/04	64.000	111.000	
BLANK	Nitrobenzene	98-95-3	< 260	n/a	ug/Kg	05/11/04			U
BLANK	4-Nitrophenol	100-02-7	< 650	n/a	ug/Kg	05/11/04			U
BLANK	4-Nitroaniline	100-01-6	< 250	n/a	ug/Kg	05/11/04			U
BLANK	N-Nitrosodiphenylamine	86-30-6	< 67	n/a	ug/Kg	05/11/04			U
BLANK	Pentachlorophenol	87-86-5	< 300	n/a	ug/Kg	05/11/04			U
BLANK	Phenanthrene	85-01-8	< 67	n/a	ug/Kg	05/11/04			U
BLANK	Phenol-d5	4165-62-2	2645.8	79.400	% Recov	05/11/04	54.000	120.000	
BLANK	Pyrene	129-00-0	< 67	n/a	ug/Kg	05/11/04			U
BLANK	Tributyl phosphate	126-73-8	< 67	n/a	ug/Kg	05/11/04			U
BLANK	2,4,6-Tribromophenol	118-79-6	2383.4	71.500	% Recov	05/11/04	24.000	122.000	
BLANK	Terphenyl-d14 (7Cl)	98904-43-9	3442.4	103.000	% Recov	05/11/04	35.000	150.000	
LCS	1,2,4-Trichlorobenzene	120-82-1	2718.0	81.500	% Recov	05/11/04	46.000	107.000	
LCS	1,4-Dichlorobenzene	106-46-7	2709.4	81.300	% Recov	05/11/04	42.000	111.000	
LCS	2,4-Dinitrotoluene	121-14-2	2497.3	74.900	% Recov	05/11/04	59.000	106.000	
LCS	2-Fluorophenol	367-12-4	2901.0	87.000	% Recov	05/11/04	50.000	110.000	
LCS	Acenaphthene	83-32-9	2648.6	79.500	% Recov	05/11/04	61.000	116.000	
LCS	4-Chloro-3-methylphenol	59-50-7	4168.0	83.400	% Recov	05/11/04	61.000	106.000	
LCS	2-Chlorophenol	95-57-8	4552.3	91.000	% Recov	05/11/04	66.000	106.000	
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	2692.0	80.800	% Recov	05/11/04	71.000	114.000	
LCS	2-Fluorobiphenyl	321-60-8	2813.0	84.400	% Recov	05/11/04	58.000	109.000	
LCS	Phenol	108-95-2	4442.7	88.900	% Recov	05/11/04	67.000	105.000	
LCS	Nitrobenzene-d5	4165-60-0	3021.8	90.700	% Recov	05/11/04	60.000	118.000	
LCS	4-Nitrophenol	100-02-7	3420.4	68.400	% Recov	05/11/04	32.000	118.000	
LCS	Pentachlorophenol	87-86-5	3420.6	68.400	% Recov	05/11/04	62.000	114.000	
LCS	Phenol-d5	4165-62-2	2785.4	83.600	% Recov	05/11/04	59.000	116.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20040719
Matrix: SOLID
Test: SW-846 8270B Semi-Vols

SAF Number: F03-018
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
LCS	Pyrene	129-00-0	3137.7	94.100	% Recov	05/11/04	66.000	118.000	
LCS	2,4,6-Tribromophenol	118-79-6	2708.5	81.300	% Recov	05/11/04	60.000	120.000	
LCS	Terphenyl-d14 (7Cl)	98904-43-9	3399.8	102.000	% Recov	05/11/04	60.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20040719
Matrix: SOLID
Test: WTPH-D TPH Diesel Range (Wa)

SAF Number: F03-018
Sample Date: 05/03/04
Receive Date:05/03/04

Lab ID: W040000471

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MS	ortho-Terphenyl Surr	84-15-1	23346	76.000	% Recov	05/12/04	70.000	130.000	
MS	Total Pet. Hydrocarbons Diesel	TPHDIESEL	107540	70.100	% Recov	05/12/04	75.000	125.000	*
MSD	ortho-Terphenyl Surr	84-15-1	29212	95.100	% Recov	05/12/04	70.000	130.000	
MSD	Total Pet. Hydrocarbons Diesel	TPHDIESEL	131790	85.800	% Recov	05/12/04	75.000	125.000	
SPK-RPD	ortho-Terphenyl Surr	84-15-1	95.100	22.326	RPD	05/12/04	0.000	20.000	*
SPK-RPD	Total Pet. Hydrocarbons Diesel	TPHDIESEL	85.800	20.141	RPD	05/12/04	0.000	20.000	*
SURR	ortho-Terphenyl Surr	84-15-1	23377	88.900	% Recov	05/12/04	70.000	130.000	

BATCH QC

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Kerosene	TPHKEROSENE	< 3800	n/a	ug/Kg	05/12/04			U
BLANK	ortho-Terphenyl Surr	84-15-1	24790	99.200	% Recov	05/12/04	70.000	130.000	
BLANK	Total Pet. Hydrocarbons Diesel	TPHDIESEL	< 3800	n/a	ug/Kg	05/12/04			U
LCS	Kerosene	TPHKEROSENE	117810	94.200	% Recov	05/12/04	70.000	130.000	
LCS	ortho-Terphenyl Surr	84-15-1	23245	93.000	% Recov	05/12/04	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20040719
Matrix: SOLID
Test: Cyanide by Midi/Spectrophotom

SAF Number: F03-018
Sample Date: 05/03/04
Receive Date:05/03/04

Lab ID: W040000471

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MS	Cyanide by Midi/Spectrophotom	57-12-5	93.3	93.300	% Recov	05/13/04	75.000	125.000	
MSD	Cyanide by Midi/Spectrophotom	57-12-5	93.3	93.300	% Recov	05/13/04	75.000	125.000	
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	93.300	0.000	RPD	05/13/04	0.000	20.000	

BATCH QC

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Cyanide by Midi/Spectrophotom	57-12-5	<1	n/a	ug/L	05/13/04	-4.000	4.000	U
BLNK-PREP	Cyanide by Midi/Spectrophotom	57-12-5	<1	n/a	ug/L	05/13/04	-4.000	4.000	U
LCS	Cyanide by Midi/Spectrophotom	57-12-5	95.6	95.600	% Recov	05/13/04	85.000	115.000	
LCS-2	Cyanide by Midi/Spectrophotom	57-12-5	N/A	n/a	% Recov	05/13/04	85.000	115.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20040719
Matrix: SOLID
Test: PCBs complete list

SAF Number: F03-018
Sample Date: 05/03/04
Receive Date:05/03/04

Lab ID: W040000471

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MS	Aroclor-1260	11096-82-5	661.53	66.200	% Recov	05/12/04	75.000	125.000	*
MS	Decachlorobiphenyl	2051-24-3	868.92	86.900	% Recov	05/12/04	50.000	150.000	
MS	Tetrachloro-m-xylene	877-09-8	729.90	73.000	% Recov	05/12/04	50.000	150.000	
MSD	Aroclor-1260	11096-82-5	527.10	52.700	% Recov	05/12/04	75.000	125.000	*
MSD	Decachlorobiphenyl	2051-24-3	782.93	78.300	% Recov	05/12/04	50.000	150.000	
MSD	Tetrachloro-m-xylene	877-09-8	660.97	66.100	% Recov	05/12/04	50.000	150.000	
SPK-RPD	Aroclor-1260	11096-82-5	52.700	22.708	RPD	05/06/04	0.000	25.000	
SPK-RPD	Decachlorobiphenyl	2051-24-3	78.300	10.412	RPD	05/06/04	0.000	20.000	
SPK-RPD	Tetrachloro-m-xylene	877-09-8	66.100	9.921	RPD	05/06/04	0.000	20.000	
SURR	Decachlorobiphenyl	2051-24-3	951.08	95.100	% Recov	05/12/04	50.000	150.000	
SURR	Tetrachloro-m-xylene	877-09-8	754.98	75.500	% Recov	05/12/04	50.000	150.000	

BATCH QC

BLANK	Aroclor-1016	12674-11-2	< 50	n/a	UGKG	05/06/04			U
BLANK	Aroclor-1221	11104-28-2	< 100	n/a	ug/Kg	05/06/04			U
BLANK	Aroclor-1232	11141-16-5	< 50	n/a	ug/Kg	05/06/04			U
BLANK	Aroclor-1242	53469-21-9	< 50	n/a	ug/Kg	05/06/04			U
BLANK	Aroclor-1248	12672-29-6	< 50	n/a	ug/Kg	05/06/04			U
BLANK	Aroclor-1254	11097-69-1	< 50	n/a	ug/Kg	05/06/04			U
BLANK	Aroclor-1260	11096-82-5	< 50	n/a	ug/Kg	05/06/04			U
BLANK	Aroclor-1262	37324-23-5	< 50	n/a	ug/Kg	05/06/04			U
BLANK	Aroclor-1268	11100-14-4	< 50	n/a	ug/Kg	05/06/04			U
BLANK	Decachlorobiphenyl	2051-24-3	959.36	95.900	% Recov	05/06/04	50.000	150.000	
BLANK	Tetrachloro-m-xylene	877-09-8	805.20	80.500	% Recov	05/06/04	50.000	150.000	
LCS	Aroclor-1260	11096-82-5	776.27	77.600	% Recov	05/06/04	70.000	130.000	
LCS	Decachlorobiphenyl	2051-24-3	863.94	86.400	% Recov	05/06/04	50.000	150.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20040719
Matrix: SOLID
Test: PCBs complete list

SAF Number: F03-018
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
LCS	Tetrachloro-m-xylene	877-09-8	807.61	80.800	% Recov	05/06/04	50.000	150.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20040719
Matrix: SOLID
Test: Neptunium by AEA

SAF Number: F03-018
Sample Date: 04/21/04
Receive Date:04/30/04

Lab ID: W040000464

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
DUP	Neptunium-237	13994-20-2	2.6e-01	21.277	RPD	05/12/04	0.000	25.000	

BATCH QC

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Neptunium-237	13994-20-2	7.8e-03	0.008	pCi/g	05/12/04	0.000	1000.000	
LCS	Neptunium-237	13994-20-2	9.279	49.095	% Recov	05/12/04	75.000	125.000	

WSCF ANALYTICAL LABORATORY QC REPORT

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SDG Number: WSCF20040719
Matrix: SOLID
Test: Uranium Isotopics by AEA

SAF Number: F03-018
Sample Date: 04/21/04
Receive Date:04/30/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040000464									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Uranium-238	U-238	5.5e-01	11.538	RPD	05/13/04	0.000	20.000	
BATCH QC									
BLANK	Uranium-238	24678-82-8	1.5e-01	0.150	pCi/g	05/13/04	0.000	1000.000	
LCS	Uranium-238	24678-82-8	4.0e+01	105.513	% Recov	05/13/04	75.000	125.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20040719
Matrix: SOLID
Test: Gross Alpha/Gross Beta (AB32)

SAF Number: F03-018
Sample Date: 04/21/04
Receive Date:04/30/04

Lab ID: W040000464

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
DUP	Gross alpha	12587-46-1	1.9e+03	30.303	RPD	05/14/04	0.000	20.000	*
DUP	Gross beta	12587-47-2	3.9e+02	36.364	RPD	05/14/04	0.000	20.000	*

BATCH QC

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Gross alpha	12587-46-1	7.3e-01	0.730	pCi/g	05/14/04	-10.000	10.000	
BLANK	Gross beta	12587-47-2	-4.5	-4.500	pCi/g	05/14/04	-10.000	10.000	
LCS	Gross alpha	12587-46-1	8.2	112.792	%rec	05/14/04	75.000	125.000	
LCS	Gross beta	12587-47-2	22.2	108.824	%rec	05/14/04	75.000	125.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20040719
Matrix: SOLID
Test: Plutonium Isotopics by AEA

SAF Number: F03-018
Sample Date: 04/21/04
Receive Date:04/30/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040000464									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Pu-239/240 by AEA	PU-239/240	1.9e+02	37.500	RPD	05/13/04	0.000	20.000	*
BATCH QC									
BLANK	Pu-239/240 by AEA	PU-239/240	4.8e-01	0.480	pCi/g	05/13/04	0.000	1000.000	
LCS	Pu-239/240 by AEA	PU-239/240	1.2e+01	97.561	% Recov	05/13/04	75.000	125.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20040719
Matrix: SOLID
Test: Americium by AEA

SAF Number: F03-018
Sample Date: 04/21/04
Receive Date:04/30/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040000464									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Americium-241	14596-10-2	1.0e+03	2.020	RPD	05/19/04	0.000	20.000	
BATCH QC									
BLANK	Americium-241	14596-10-2	9.3e-01	0.930	pCi/g	05/19/04	-10.000	1000.000	
LCS	Americium-241	14596-10-2	24.49	93.118	% Recov	05/24/04	75.000	125.000	

WSCF ANALYTICAL LABORATORY QC REPORT

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SDG Number: WSCF20040719
Matrix: SOLID
Test: Ammonia (N) by IC

SAF Number: F03-018
Sample Date: 04/21/04
Receive Date:04/30/04

Lab ID: W040000464

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit		RQ
DUP	Ammonia (N) by IC	7664-41-7	1.35e+01	3.636	RPD	05/14/04	0.000	20.000		
MS	Ammonia (N) by IC	7664-41-7	2.33e-01	56.553	% Recov	05/14/04	75.000	125.000	*	
MSD	Ammonia (N) by IC	7664-41-7	2.32e-01	56.311	% Recov	05/14/04	75.000	125.000	*	

BATCH QC

BLANK	Ammonia (N) by IC	7664-41-7	<4.00e-3	n/a	mg/L	05/14/04	0.000	30.000		U
BLANK	Ammonia (N) by IC	7664-41-7	<4.00e-3	n/a	mg/L	05/14/04	0.000	30.000		U
LCS	Ammonia (N) by IC	7664-41-7	8.87e+01	107.646	% Recov	05/14/04	80.000	120.000		

WSCF ANALYTICAL LABORATORY QC REPORT

2-38

SDG Number: WSCF20040719
Matrix: SOLID
Test: ICP Metals Analysis, Grd H20 P

SAF Number: F03-018
Sample Date: 05/03/04
Receive Date:05/03/04

Lab ID: W040000471
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	141.29	56.516	% Recov	05/27/04	75.000	125.000	*
MS	Aluminum	7429-90-5	2660	n/a	% Recov	05/27/04	75.000	125.000	
MS	Arsenic	7440-38-2	244.34	97.736	% Recov	05/27/04	75.000	125.000	
MS	Barium	7440-39-3	267.7	107.080	% Recov	05/27/04	75.000	125.000	
MS	Beryllium	7440-41-7	247.605	99.042	% Recov	05/27/04	75.000	125.000	
MS	Bismuth	7440-69-9	172	68.800	% Recov	05/27/04	75.000	125.000	*
MS	Calcium	7440-70-2	-6050	n/a	% Recov	05/27/04	75.000	125.000	
MS	Cadmium	7440-43-9	231.44	92.576	% Recov	05/27/04	75.000	125.000	
MS	Cobalt	7440-48-4	231.9	92.760	% Recov	05/27/04	75.000	125.000	
MS	Chromium	7440-47-3	210	84.000	% Recov	05/27/04	75.000	125.000	
MS	Copper	7440-50-8	252.8	101.120	% Recov	05/27/04	75.000	125.000	
MS	Iron	7439-89-6	-12010	n/a	% Recov	05/27/04	75.000	125.000	
MS	Potassium	7440-09-7	2707	108.280	% Recov	05/27/04	75.000	125.000	
MS	Lithium	7439-93-2	261.86	104.744	% Recov	05/27/04	70.000	130.000	
MS	Magnesium	7439-95-4	174	n/a	% Recov	05/27/04	75.000	125.000	
MS	Manganese	7439-96-5	262	104.800	% Recov	05/27/04	75.000	125.000	
MS	Sodium	7440-23-5	1050	n/a	% Recov	05/27/04	75.000	125.000	
MS	Nickel	7440-02-0	218.1	87.240	% Recov	05/27/04	75.000	125.000	
MS	Phosphorus	7723-14-0	177	70.800	% Recov	05/27/04	70.000	130.000	
MS	Lead	7439-92-1	234.2	93.680	% Recov	05/27/04	75.000	125.000	
MS	Antimony	7440-36-0	177.48	70.992	% Recov	05/27/04	75.000	125.000	*
MS	Selenium	7782-49-2	253.24	101.296	% Recov	05/27/04	75.000	125.000	
MS	Strontium	7440-24-6	261.8	104.720	% Recov	05/27/04	70.000	130.000	
MS	Vanadium	7440-62-2	232	92.800	% Recov	05/27/04	75.000	125.000	
MS	Zinc	7440-66-6	248.8	99.520	% Recov	05/27/04	75.000	125.000	
MSD	Silver	7440-22-4	137.29	54.916	% Recov	05/27/04	75.000	125.000	*

WSCF ANALYTICAL LABORATORY QC REPORT

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SDG Number: WSCF20040719
Matrix: SOLID
Test: ICP Metals Analysis, Grd H20 P

SAF Number: F03-018
Sample Date: 05/03/04
Receive Date:05/03/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	Aluminum	7429-90-5	3160	n/a	% Recov	05/27/04	75.000	125.000	
MSD	Arsenic	7440-38-2	248.34	99.336	% Recov	05/27/04	75.000	125.000	
MSD	Barium	7440-39-3	267.7	107.080	% Recov	05/27/04	75.000	125.000	
MSD	Beryllium	7440-41-7	252.605	101.042	% Recov	05/27/04	75.000	125.000	
MSD	Bismuth	7440-69-9	172	68.800	% Recov	05/27/04	75.000	125.000	•
MSD	Calcium	7440-70-2	-4150	n/a	% Recov	05/27/04	75.000	125.000	
MSD	Cadmium	7440-43-9	236.44	94.576	% Recov	05/27/04	75.000	125.000	
MSD	Cobalt	7440-48-4	235.9	94.360	% Recov	05/27/04	75.000	125.000	
MSD	Chromium	7440-47-3	272	108.800	% Recov	05/27/04	75.000	125.000	
MSD	Copper	7440-50-8	256.8	102.720	% Recov	05/27/04	75.000	125.000	
MSD	Iron	7439-89-6	-11510	n/a	% Recov	05/27/04	75.000	125.000	
MSD	Potassium	7440-09-7	2777	111.080	% Recov	05/27/04	75.000	125.000	
MSD	Lithium	7439-93-2	261.86	104.744	% Recov	05/27/04	75.000	125.000	
MSD	Magnesium	7439-95-4	564	n/a	% Recov	05/27/04	75.000	125.000	
MSD	Manganese	7439-96-5	274	109.600	% Recov	05/27/04	75.000	125.000	
MSD	Sodium	7440-23-5	1170	n/a	% Recov	05/27/04	75.000	125.000	
MSD	Nickel	7440-02-0	251.1	100.440	% Recov	05/27/04	75.000	125.000	
MSD	Phosphorus	7723-14-0	207	82.800	% Recov	05/27/04	75.000	125.000	
MSD	Lead	7439-92-1	236.2	94.480	% Recov	05/27/04	75.000	125.000	
MSD	Antimony	7440-36-0	175.48	70.192	% Recov	05/27/04	75.000	125.000	•
MSD	Selenium	7782-49-2	257.24	102.896	% Recov	05/27/04	75.000	125.000	
MSD	Strontium	7440-24-6	267.8	107.120	% Recov	05/27/04	75.000	125.000	
MSD	Vanadium	7440-62-2	234	93.600	% Recov	05/27/04	75.000	125.000	
MSD	Zinc	7440-66-6	251.8	100.720	% Recov	05/27/04	75.000	125.000	
SPK-RPD	Silver	7440-22-4	54.916	2.872	RPD	05/27/04	0.000	20.000	
SPK-RPD	Aluminum	7429-90-5		n/a	RPD	05/27/04	0.000	20.000	
SPK-RPD	Arsenic	7440-38-2	99.336	1.624	RPD	05/27/04	0.000	20.000	
SPK-RPD	Barium	7440-39-3	107.080	0.000	RPD	05/27/04	0.000	20.000	
SPK-RPD	Beryllium	7440-41-7	101.042	1.999	RPD	05/27/04	0.000	20.000	
SPK-RPD	Bismuth	7440-69-9	68.800	0.000	RPD	05/27/04	0.000	20.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20040719
Matrix: SOLID
Test: ICP Metals Analysis, Grd H20 P

SAF Number: F03-018
Sample Date: 05/03/04
Receive Date:05/03/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SPK-RPD	Calcium	7440-70-2		n/a	RPD	05/27/04	0.000	20.000	
SPK-RPD	Cadmium	7440-43-9	94.576	2.137	RPD	05/27/04	0.000	20.000	
SPK-RPD	Cobalt	7440-48-4	94.360	1.710	RPD	05/27/04	0.000	20.000	
SPK-RPD	Chromium	7440-47-3	108.800	25.726	RPD	05/27/04	0.000	20.000	
SPK-RPD	Copper	7440-50-8	102.720	1.570	RPD	05/27/04	0.000	20.000	
SPK-RPD	Iron	7439-89-6		n/a	RPD	05/27/04	0.000	20.000	
SPK-RPD	Potassium	7440-09-7	111.080	2.553	RPD	05/27/04	0.000	20.000	
SPK-RPD	Lithium	7439-93-2	104.744	0.000	RPD	05/27/04	0.000	20.000	
SPK-RPD	Magnesium	7439-95-4		n/a	RPD	05/27/04	0.000	20.000	
SPK-RPD	Manganese	7439-96-5	109.600	4.478	RPD	05/27/04	0.000	20.000	
SPK-RPD	Sodium	7440-23-5		n/a	RPD	05/27/04	0.000	20.000	
SPK-RPD	Nickel	7440-02-0	100.440	14.066	RPD	05/27/04	0.000	20.000	
SPK-RPD	Phosphorus	7723-14-0	82.800	15.625	RPD	05/27/04	0.000	20.000	
SPK-RPD	Lead	7439-92-1	94.480	0.850	RPD	05/27/04	0.000	20.000	
SPK-RPD	Antimony	7440-36-0	70.192	1.133	RPD	05/27/04	0.000	20.000	
SPK-RPD	Selenium	7782-49-2	102.896	1.567	RPD	05/27/04	0.000	20.000	
SPK-RPD	Strontium	7440-24-6	107.120	2.266	RPD	05/27/04	0.000	20.000	
SPK-RPD	Vanadium	7440-62-2	93.600	0.858	RPD	05/27/04	0.000	20.000	
SPK-RPD	Zinc	7440-66-6	100.720	1.199	RPD	05/27/04	0.000	20.000	

BATCH QC

BLANK	Silver	7440-22-4	<0.12	n/a	ug/g	05/27/04	-1.000	0.032	U
BLANK	Aluminum	7429-90-5	<2.5	n/a	ug/g	05/27/04	-1.000	63.000	U
BLANK	Arsenic	7440-38-2	<1.2	n/a	ug/g	05/27/04	-1.000	0.067	U
BLANK	Barium	7440-39-3	<1.3e-2	n/a	ug/g	05/27/04	-1.000	0.014	U
BLANK	Beryllium	7440-41-7	<5e-3	n/a	ug/g	05/27/04	-1.000	0.009	U
BLANK	Bismuth	7440-69-9	<5	n/a	ug/g	05/27/04	-1.000	0.068	U
BLANK	Calcium	7440-70-2	<1.2	n/a	ug/g	05/27/04	-38.000	38.000	U
BLANK	Cadmium	7440-43-9	<7.5e-2	n/a	ug/g	05/27/04	-1.000	0.009	U
BLANK	Cobalt	7440-48-4	<9.2e-2	n/a	ug/g	05/27/04	-4.000	4.000	U

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20040719
Matrix: SOLID
Test: ICP Metals Analysis, Grd H20 P

SAF Number: F03-018
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Chromium	7440-47-3	<0.2	n/a	ug/g	05/27/04	-1.000	0.035	U
BLANK	Copper	7440-50-8	<7e-2	n/a	ug/g	05/27/04	-1.000	0.035	U
BLANK	Iron	7439-89-6	<1.5	n/a	ug/g	05/27/04	-19.000	19.000	U
BLANK	Potassium	7440-09-7	<8.9	n/a	ug/g	05/27/04	-710.000	710.000	U
BLANK	Lithium	7439-93-2	<0.1	n/a	ug/g	05/27/04	-38.000	38.000	U
BLANK	Magnesium	7439-95-4	<1.85	n/a	ug/g	05/27/04	-85.000	85.000	U
BLANK	Manganese	7439-96-5	<4.3e-2	n/a	ug/g	05/27/04	-1.000	0.009	U
BLANK	Sodium	7440-23-5	<14.6	n/a	ug/g	05/27/04	-73.000	73.000	U
BLANK	Nickel	7440-02-0	<0.16	n/a	ug/g	05/27/04	-1.000	0.012	U
BLANK	Phosphorus	7723-14-0	<0.3	n/a	ug/g	05/27/04	0.000	1000.000	U
BLANK	Lead	7439-92-1	<6.3e-2	n/a	ug/g	05/27/04	-1.000	0.068	U
BLANK	Antimony	7440-36-0	<0.54	n/a	ug/g	05/27/04	-1.000	0.074	U
BLANK	Selenium	7782-49-2	<1	n/a	ug/g	05/27/04	-1.000	0.075	U
BLANK	Strontium	7440-24-6	<0.1	n/a	ug/g	05/27/04	-38.000	38.000	U
BLANK	Vanadium	7440-62-2	<0.18	n/a	ug/g	05/27/04	-1.000	0.030	U
BLANK	Zinc	7440-66-6	<0.26	n/a	ug/g	05/27/04	-1.000	0.018	U
LCS	Silver	7440-22-4	143	120.168	% Recov	05/27/04	80.000	120.000	
LCS	Aluminum	7429-90-5	7490	101.905	% Recov	05/27/04	80.000	120.000	
LCS	Arsenic	7440-38-2	459	103.378	% Recov	05/27/04	80.000	120.000	
LCS	Barium	7440-39-3	691	107.800	% Recov	05/27/04	80.000	120.000	
LCS	Beryllium	7440-41-7	352	108.642	% Recov	05/27/04	80.000	120.000	
LCS	Bismuth	7440-69-9	228	91.566	% Recov	05/27/04	80.000	120.000	
LCS	Calcium	7440-70-2	3490	n/a	% Recov	05/27/04	80.000	120.000	
LCS	Cadmium	7440-43-9	335	105.346	% Recov	05/27/04	80.000	120.000	
LCS	Cobalt	7440-48-4	344	102.687	% Recov	05/27/04	80.000	120.000	
LCS	Chromium	7440-47-3	355	105.970	% Recov	05/27/04	80.000	120.000	
LCS	Copper	7440-50-8	405	107.713	% Recov	05/27/04	80.000	120.000	
LCS	Iron	7439-89-6	11600	90.625	% Recov	05/27/04	80.000	120.000	
LCS	Potassium	7440-09-7	4920	106.957	% Recov	05/27/04	80.000	120.000	
LCS	Lithium	7439-93-2	295	118.474	% Recov	05/27/04	80.000	120.000	

00000449
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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20040719
Matrix: SOLID
Test: ICP Metals Analysis, Grd H20 P

SAF Number: F03-018
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
LCS	Magnesium	7439-95-4	2490	110.667	% Recov	05/27/04	80.000	120.000	
LCS	Manganese	7439-96-5	724	101.401	% Recov	05/27/04	80.000	120.000	
LCS	Sodium	7440-23-5	631	102.104	% Recov	05/27/04	80.000	120.000	
LCS	Nickel	7440-02-0	347	104.204	% Recov	05/27/04	80.000	120.000	
LCS	Phosphorus	7723-14-0	431	n/a	% Recov	05/27/04	80.000	120.000	
LCS	Lead	7439-92-1	355	103.499	% Recov	05/27/04	80.000	120.000	
LCS	Antimony	7440-36-0	95.8	69.420	% Recov	05/27/04	80.000	120.000	
LCS	Selenium	7782-49-2	408	112.397	% Recov	05/27/04	80.000	120.000	
LCS	Strontium	7440-24-6	346	104.217	% Recov	05/27/04	80.000	120.000	
LCS	Vanadium	7440-62-2	419	84.137	% Recov	05/27/04	80.000	120.000	
LCS	Zinc	7440-66-6	550	107.004	% Recov	05/27/04	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

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SDG Number: WSCF20040719
Matrix: SOLID
Test: VOA Ground Water Protection

SAF Number: F03-018
Sample Date: 05/03/04
Receive Date:05/03/04

Lab ID: W040000471
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	59.230	113.000	% Recov	05/13/04	63.000	117.000	
MS	Benzene	71-43-2	55.960	106.000	% Recov	05/13/04	75.000	129.000	
MS	4-Bromofluorobenzene	460-00-4	105.70	100.000	% Recov	05/13/04	84.000	116.000	
MS	Chlorobenzene	108-90-7	56.610	108.000	% Recov	05/13/04	79.000	119.000	
MS	1,2-Dichloroethane-d4	17060-07-0	115.30	110.000	% Recov	05/13/04	82.000	136.000	
MS	Toluene-d8	2037-26-5	108.90	103.000	% Recov	05/13/04	89.000	119.000	
MS	Toluene	108-88-3	56.280	107.000	% Recov	05/13/04	76.000	120.000	
MS	Trichloroethene	79-01-6	56.720	108.000	% Recov	05/13/04	73.000	123.000	
MSD	1,1-Dichloroethene	75-35-4	57.760	110.000	% Recov	05/13/04	63.000	117.000	
MSD	Benzene	71-43-2	57.660	110.000	% Recov	05/13/04	75.000	129.000	
MSD	4-Bromofluorobenzene	460-00-4	102.10	97.000	% Recov	05/13/04	84.000	116.000	
MSD	Chlorobenzene	108-90-7	58.100	110.000	% Recov	05/13/04	79.000	119.000	
MSD	1,2-Dichloroethane-d4	17060-07-0	109.70	104.000	% Recov	05/13/04	82.000	136.000	
MSD	Toluene-d8	2037-26-5	109.90	104.000	% Recov	05/13/04	89.000	119.000	
MSD	Toluene	108-88-3	56.140	107.000	% Recov	05/13/04	76.000	120.000	
MSD	Trichloroethene	79-01-6	57.400	109.000	% Recov	05/13/04	73.000	123.000	
SPK-RPD	1,1-Dichloroethene	75-35-4	110.000	2.691	RPD	05/13/04	0.000	25.000	
SPK-RPD	Benzene	71-43-2	110.000	3.704	RPD	05/13/04	0.000	25.000	
SPK-RPD	4-Bromofluorobenzene	460-00-4	97.000	3.046	RPD	05/13/04	0.000	25.000	
SPK-RPD	Chlorobenzene	108-90-7	110.000	1.835	RPD	05/13/04	0.000	25.000	
SPK-RPD	1,2-Dichloroethane-d4	17060-07-0	104.000	5.607	RPD	05/13/04	0.000	25.000	
SPK-RPD	Toluene-d8	2037-26-5	104.000	0.966	RPD	05/13/04	0.000	25.000	
SPK-RPD	Toluene	108-88-3	107.000	0.000	RPD	05/13/04	0.000	25.000	
SPK-RPD	Trichloroethene	79-01-6	109.000	0.922	RPD	05/13/04	0.000	25.000	
SURR	4-Bromofluorobenzene	460-00-4	104.00	98.800	% Recov	05/13/04	71.000	125.000	
SURR	1,2-Dichloroethane-d4	17060-07-0	108.20	103.000	% Recov	05/13/04	80.000	134.000	

WSCF ANALYTICAL LABORATORY QC REPORT

2-44

SDG Number: WSCF20040719
Matrix: SOLID
Test: VOA Ground Water Protection

SAF Number: F03-018
Sample Date: 05/03/04
Receive Date:05/03/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SURR	Toluene-d8	2037-26-5	108.50	103.000	% Recov	05/13/04	80.000	126.000	

Lab ID: W040000473
BATCH QC ASSOCIATED WITH SAMPLE

SURR	4-Bromofluorobenzene	460-00-4	255.60	102.000	% Recov	05/13/04	71.000	125.000	
SURR	1,2-Dichloroethane-d4	17060-07-0	281.90	113.000	% Recov	05/13/04	80.000	134.000	
SURR	Toluene-d8	2037-26-5	273.70	109.000	% Recov	05/13/04	80.000	126.000	

BATCH QC

BLANK	1,1-Dichloroethane	75-34-3	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	1,1,1-Trichloroethane	71-55-6	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	1,1,2-Trichloroethane	79-00-5	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	1,1-Dichloroethene	75-35-4	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	1,2-Dichloroethane	107-06-2	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	1,2-Dichloroethene(Total)	540-59-0	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	1-Butanol	71-36-3	< 40	n/a	ug/Kg	05/13/04			U
BLANK	2-Hexanone	591-78-6	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	4-Methyl-2-Pentanone	108-10-1	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	Acetone	67-64-1	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	Bromodichloromethane	75-27-4	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	Benzene	71-43-2	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	4-Bromofluorobenzene	460-00-4	107.60	108.000	% Recov	05/13/04	71.000	125.000	
BLANK	Bromoform	75-25-2	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	n-Butylbenzene	104-51-8	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	Carbon disulfide	75-15-0	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	Carbon tetrachloride	56-23-5	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	Dibromochloromethane	124-48-1	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	Chloroform	67-66-3	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	Chlorobenzene	108-90-7	< 2.0	n/a	ug/Kg	05/13/04			U

WSCF ANALYTICAL LABORATORY QC REPORT

2-45

SDG Number: WSCF20040719
Matrix: SOLID
Test: VOA Ground Water Protection

SAF Number: F03-018
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	cis-1,2-Dichloroethylene	156-59-2	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	cis-1,3-Dichloropropene	10061-01-5	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	Chloroethane	75-00-3	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	1,2-Dichloroethane-d4	17060-07-0	113.40	113.000	% Recov	05/13/04	80.000	134.000	
BLANK	trans-1,2-Dichloroethylene	156-60-5	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	1,2-Dichloropropane	78-87-5	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	Ethylbenzene	100-41-4	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	Hexane	110-54-3	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	Bromomethane	74-83-9	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	Chloromethane	74-87-3	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	2-Butanone	78-93-3	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	Methylenechloride	75-09-2	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	Tetrachloroethene	127-18-4	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	Styrene	100-42-5	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	Xylenes (total)	1330-20-7	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	Toluene-d8	2037-26-5	105.40	105.000	% Recov	05/13/04	80.000	126.000	
BLANK	Toluene	108-88-3	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	trans-1,3-Dichloropropene	10061-02-6	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	Trichloroethene	79-01-6	< 2.0	n/a	ug/Kg	05/13/04			U
BLANK	Vinyl chloride	75-01-4	< 2.0	n/a	ug/Kg	05/13/04			U
LCS	1,1-Dichloroethene	75-35-4	46.610	93.200	% Recov	05/13/04	70.000	130.000	
LCS	Benzene	71-43-2	53.720	107.000	% Recov	05/13/04	70.000	130.000	
LCS	4-Bromofluorobenzene	460-00-4	104.80	105.000	% Recov	05/13/04	71.000	125.000	
LCS	Chlorobenzene	108-90-7	54.270	109.000	% Recov	05/13/04	70.000	130.000	
LCS	1,2-Dichloroethane-d4	17060-07-0	116.00	116.000	% Recov	05/13/04	80.000	134.000	
LCS	Toluene-d8	2037-26-5	108.60	109.000	% Recov	05/13/04	80.000	126.000	
LCS	Toluene	108-88-3	54.400	109.000	% Recov	05/13/04	70.000	130.000	
LCS	Trichloroethene	79-01-6	53.620	107.000	% Recov	05/13/04	70.000	130.000	

W1141-SLF-04-187

ATTACHMENT 3

SAMPLE RECEIPT INFORMATION

Consisting of 3 pages
Not including cover page

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

File
VTS
6/2/04

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program
Richland, WA 99352
Attn: Steve Trent

Customer Code: GPP
Group#: 20040719
Project#: F03-018
Proj Mgr: Steve Trent A0-21
Phone: 373-5869

The following samples were received from you on 05/03/04. 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
W040000471	B17N63	GRP @2008 @AEA-33 @TPHD-WA	TRENT Solid, or handle as if solid @AB-32 @AEA-30 @AEA-31 @AEA-32 @GEA-GPP @GPP6010 @IC-30 @PCBGPP @SVOC @VOA-GPP CN-02 NH4-IC PERSOLID PH-30	05/03/04
W040000473	B18XT1	GRP @VOA-GPP	TRENT Solid, or handle as if solid	05/03/04

Test Acronym Description

Test Acronym	Description
@2008	ICP-2008 MS All possible metal
@AB-32	Gross Alpha/Gross Beta (AB32)
@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)
@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

0000055

3-1

6/2/04

FLUOR Hanford Inc.	CENTRAL PLATEAU CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F03-018-016	Page 1 of 1

Collector Pope/Pfister/Hughes	Company Contact Steve Trent Telephone No. 373-5869	Project Coordinator TRENT, SJ	Price Code 8N Data Turnaround 45 Days Air Quality ☐
Project Designation 216-Z-9 Trench Characterization Borehole - Soil	Sampling Location 119.5'-122' ASL 216-Z-9/C3426 - Interval ~~123'-125.5'~~ 5/3/04	SAF No. F03-018	
Ice Chest No. GRP-04-006	Field Logbook No. ASL 4/19/04 HNF-N-~~2361~~ 360-1 COA 119152ES10	Method of Shipment Government Vehicle	
Shipped To Waste Sampling & Characterization	Offsite Property No. N/A	Bill of Lading/Air Bill No. N/A	

POSSIBLE SAMPLE HAZARDS/REMARKS

Special Handling and/or Storage

RADIOACTIVE TIE TO: B17NN5

Preservation	Cool 4C	None	Cool 4C	Cool 4C	Cool 4C	None					
Type of Container	aGs*	P	aG	aG	aG	aG					
No. of Container(s)	3	1	1	1	1	1					
Volume	40mL	500mL	60mL	120mL	60mL	60mL					
SAMPLE ANALYSIS	See item (1) in Special Instructions.	See item (2) in Special Instructions.	See item (3) in Special Instructions.	See item (4) in Special Instructions.	PCBs - 8082	See item (5) in Special Instructions.					

20040719

Sample No.	Matrix *	Sample Date	Sample Time										
B17N63 W04000047I	SOIL	5-3-04	0943	X	X	X	X	X	X				

CHAIN OF POSSESSION	Date/Time	Sign/Print Names	Date/Time
Relinquished By/Removed From	5-3-04 13:00	Received By/Stored In	1300 5/3/04
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

** The laboratory is to achieve a detection limit of 5 pCi/g and 10 pCi/g for gross alpha and gross beta, respectively. The laboratory is to report kerosene range organics from the WTPH-D analysis.

(1) VOA - 8260A (TCL); VOA - 8260A (Add-On) {1-Butanol, Acetonitrile, cis-1,2-Dichloroethylene, Hexane, n-Butylbenzene, trans-1,2-Dichloroethylene}
(2) Gross Alpha; Gross Beta; Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155}; Gamma Spec - Add-on {Antimony-125, Cesium-134}; Americium-241; Isotopic Plutonium; Isotopic Uranium; Neptunium-237
(3) Semi-VOA - 8270A (TCL); Semi-VOA -- 8270A (Add-On) {1,2,4-Trimethylbenzene, Cyclohexanone, Tributyl phosphate}; TPH-Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range}
(4) ICP Metals - 6010A (TAL); ICP Metals - 6010A (Add-on) {Arsenic, Beryllium, Bismuth, Lead, Lithium, Phosphorus, Selenium, Strontium}; ICP/MS - 200.8 (Add-on) {Mercury, Uranium}
(5) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphate, Sulfate}; Cations (IC) - 300.7 {Nitrogen in ammonium}; Total Cyanide - 9010; pH (Soil) - 9045

Matrix *
S=Soil
SE=Sediment
SO=Solid
SL=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

A-6003-618(03/03)

3-2

0000056

FLUOR Hanford Inc.	CENTRAL PLATEAU CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F03-018-085	Page 1 of 1

Collector Pope/Pfister/Hughes/Wiberg	Company Contact Steve Trent	Telephone No. 373-5869	Project Coordinator TRENT, SJ	Price Code 8N	Data Turnaround 60 Days
Project Designation 216-Z-9 Trench Characterization Borehole - Soil	Sampling Location 216-Z-9/C3426		SAF No. F03-018	Air Quality ☐	
Ice Chest No. GRP-04-056	Field Logbook No. HNF-N ~~3761~~ 3601	COA 119152ES10	Method of Shipment Government Vehicle		
Shipped To ~~222-S Lab Operations~~ WSCF	Offsite Property No. N/A		Bill of Lading/Air Bill No. N/A		

POSSIBLE SAMPLE HAZARDS/REMARKS
Radioactive Tie to B17NN5

Special Handling and/or Storage

Preservation	Cool 4C												
Type of Container	P												
No. of Container(s)	3												
Volume	5g												
SAMPLE ANALYSIS	See item (1) in Special Instructions.												

Sample No.	Matrix *	Sample Date	Sample Time										
B18XT1 W04000043	SOIL	5-3-04	0943	X									

CHAIN OF POSSESSION		Sign/Print Names	
Relinquished By/Removed From Kevin D. Hughes	Date/Time 5-3-04 13:00	Received By/Stored In	Date/Time 5/3/04 13:00
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

(1) VOA - 8260A - Complete; VOA - 8260A (Add-On) {Acetonitrile, Hexane, n-Butylbenzene}

Matrix *
S=Soil
SE=Sediment
SO=Solid
SL=Sludge
W=Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

A-6003-618(03/03)