Fluor Hanford, Inc.
Post Office Box 1000
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Memorandum

W1141-03-SLF-063

To:	S. J. Trent	Date:	November 10, 2003
From:	S. L. Fitzgerald, Manager WSCF Analytical Services	Telephone:	373-7495

	W/Attachments		W/O Attachments	
cc:	T. F. Dale	S3-28	D. Hart	S3-30
	S. L. Fitzgerald	S3-30	L. C. Swanson	E6-35
	H. K. Meznarich	S3-30	File/LB	
	J. E. Trechter	S3-30		
	M. Neely	S3-30		

Subject: FINAL RESULTS FOR 200-LW-1/LW-2 CHARACTERIZATION- SAMPLE DELIVERY GROUP WSCF20031369- SAF NUMBER F03-026

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

(2) HNF-SD-CD-QAPP-017, Rev. 5, Waste Sampling and Characterization Facility Quality Assurance Plan

This letter contains a narrative (Attachment 1) for the sample delivery group (WSCF20031369), the analytical results (Attachment 2) and the sample receipt information (Attachment 3).

slf/ddw

Attachments 3

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W1141-03-SLF-063

ATTACHMENT 1

NARRATIVE

Consisting of 3 pages
Cover page not included

Sample Delivery Group	**WSCF20031369**
Sample Matrix	**Water**
Sample Visual	**Clear**
SAF Number	**F03-026**
Data Deliverable	**Summary Report**

Introduction

One (1) water sample (B17RR0) from GPP was received at the WSCF Laboratory on October 08, 2003. The sample was analyzed for those analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Protection 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 and ICP-AES Metals by EPA SW-846 Method 6010A. Analytical work was performed with no deviations to the approved method.
- VOA's by EPA SW-846 Method 8260A. Analytical work was performed with no deviations to the approved procedure.
- Semi-VOA's by EPA SW-846 Method 8270B. Analytical work was performed with no deviations to the approved method.
- Alcohols and Glycols by EPA SW-846 Method 8015. Analytical work was performed with no deviations to the approved method.
- IC Anions and Ammonium by EPA SW-846 Method 300.0 and 300.7. Analytical work was performed with no deviations to the approved methods.
- The pH by EPA Method 150.1. Analytical work was performed with no deviations to the approved method.
- All RadChem analyses (TA/TB) were run by internal WDOE accredited WSCF procedures. Analytical work was performed with no deviations to the approved method.

Comments

ICP-MS and ICP-AES Metals – The hold time(s) for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page(s) 2-20, 2-21, and 2-22 for QC details.

VOA's – The hold time(s) for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page(s) 2-24, 2-25, and 2-26 for QC details.

Semi-VOA's – The hold time(s) for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page(s) 2-16, 2-17, 2-18, and 2-19 for QC details. Compounds listed on the tentatively identified peak report with an "N" qualifier have been identified with the program used to interpret the raw data.

Alcohols and Glycols – The hold time(s) for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page(s) 2-23 for QC details.

IC Anions – The client requested hold time(s) for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page(s) 2-11 and 2-12 for QC details.

pH – A Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page(s) 2-13 for QC details.

NH4 – The hold time(s) for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page(s) 2-14 for QC details.

RadChem – There are no hold times associated with these WDOE accredited methods. A Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page(s) 2-15 for QC details.

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.

Troy Dale
WSCF Production Control

Abbreviations

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

W1141-03-SLF-063

ATTACHMENT 2

ANALYTICAL RESULTS

Consisting of 26 pages
Cover page not included

WSCF
ANALYTICAL RESULTS REPORT

for

Ground Water Protection Program

Richland, WA 99352

Attention: Steve Trent

Analytical: _____

Client Services: John Trechter

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#: WSCF20031369
Report Date: 6-nov-2003
Report WGPP/ver. 1
Ground Water Protection Program

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F03-026: F03-026

Group #: WSCF20031369

Sample #	Client ID		CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W030000897	B17RR0	TRENT	NH4-N	Nitrogen in ammonium		LA-503-401	B	6.90e-03	mg/L	1.00	4.0e-03	10/09/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	PH	pH Measurement		LA-212-402		7.23	pH	1.00	0.010	10/09/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	107-21-1	Ethylene glycol		Organics	U	< 5.00e+03	ug/L	1.00	5.0e+03	10/14/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	16984-48-8	Fluoride		LA-533-410	U	< 0.0230	mg/L	1.00	0.023	10/09/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	16887-00-6	Chloride		LA-533-410	B	0.129	mg/L	1.00	0.052	10/09/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	NO2-N	Nitrogen in Nitrite		LA-533-410	U	< 0.0190	mg/L	1.00	0.019	10/09/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	NO3-N	Nitrogen in Nitrate		LA-533-410	U	< 0.0130	mg/L	1.00	0.013	10/09/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	14265-44-2	Phosphate		LA-533-410	U	< 0.0540	mg/L	1.00	0.054	10/09/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	14808-79-8	Sulfate		LA-533-410	U	< 0.100	mg/L	1.00	0.10	10/09/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	12587-46-1	Gross alpha		LA-508-415	U	0.180	pCi/L	1.00	0.98	10/14/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	E.T.C	Gross Alpha Method Error		LA-508-415		+- 0.540	pCi/L	1.00	0.0	10/14/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	12587-47-2	Gross beta		LA-508-415	U	0.300	pCi/L	1.00	0.85	10/14/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	E.T.C	Gross Beta Method Error		LA-508-415		+- 0.510	pCi/L	1.00	0.0	10/14/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	7440-69-9	Bismuth		LA-505-411	U	< 100	ug/L	1.00	1.0e+02	10/16/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	7440-36-0	Antimony		LA-505-412	C	0.677	ug/L	1.00	0.50	10/16/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	7440-38-2	Arsenic		LA-505-412	U	< 0.300	ug/L	1.00	0.30	10/16/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	7440-39-3	Barium		LA-505-412	C	0.387	ug/L	1.00	0.20	10/16/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	7440-41-7	Beryllium		LA-505-412	U	< 0.300	ug/L	1.00	0.30	10/16/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	7440-47-3	Chromium		LA-505-412	C	0.927	ug/L	1.00	0.30	10/16/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	7440-50-8	Copper		LA-505-412		1.62	ug/L	1.00	0.50	10/16/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	7439-92-1	Lead		LA-505-412	U	< 1.20	ug/L	1.00	1.2	10/16/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	7440-02-0	Nickel		LA-505-412		0.784	ug/L	1.00	0.50	10/16/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	7782-49-2	Selenium		LA-505-412	U	< 0.300	ug/L	1.00	0.30	10/16/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	7440-22-4	Silver		LA-505-412	U	< 0.200	ug/L	1.00	0.20	10/16/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	100-02-7	4-Nitrophenol		LA-523-456	U	< 1.40	ug/L	1.00	1.4	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	106-46-7	1,4-Dichlorobenzene		LA-523-456	U	< 4.90	ug/L	1.00	4.9	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	108-95-2	Phenol		LA-523-456	U	< 1.70	ug/L	1.00	1.7	10/15/03	10/08/03	10/08/03

MDL=Minimum Detection Limit
RQ=Result Qualifier

B - The analyte < the RDL but > = the IDL/MDL (inorganic)
U - Analyzed for but not detected above limiting criteria.
C - The Analyte was in the Sample and Blank, Sample < = 5 x Blank

DF=Dilution Factor

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F03-026: F03-026

Group #: WSCF20031369

Sample #	Client ID		CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W030000897	B17RR0	TRENT	120-82-1	1,2,4-Trichlorobenzene		LA-523-456	U	< 2.90	ug/L	1.00	2.9	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	121-14-2	2,4-Dinitrotoluene		LA-523-456	U	< 1.80	ug/L	1.00	1.8	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	129-00-0	Pyrene		LA-523-456	U	< 2.10	ug/L	1.00	2.1	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	59-50-7	4-Chloro-3-methylphenol		LA-523-456	U	< 1.30	ug/L	1.00	1.3	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine		LA-523-456	U	< 1.70	ug/L	1.00	1.7	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	83-32-9	Acenaphthene		LA-523-456	U	< 2.40	ug/L	1.00	2.4	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	87-86-5	Pentachlorophenol		LA-523-456	U	< 1.70	ug/L	1.00	1.7	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	95-57-8	2-Chlorophenol		LA-523-456	U	< 1.70	ug/L	1.00	1.7	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	126-73-8	Tributyl phosphate		LA-523-456	U	< 2.50	ug/L	1.00	2.5	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	75-35-4	1,1-Dichloroethene		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	79-01-6	Trichloroethene		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	71-43-2	Benzene		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	108-88-3	Toluene		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	108-90-7	Chlorobenzene		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	75-34-3	1,1-Dichloroethane		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	100-41-4	Ethylbenzene		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	100-42-5	Styrene		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	10061-01-5	cis-1,3-Dichloropropene		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	10061-02-6	trans-1,3-Dichloropropene		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	107-06-2	1,2-Dichloroethane		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	108-10-1	4-Methyl-2-Pentanone		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	124-48-1	Dibromochloromethane		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	127-18-4	Tetrachloroethene		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	1330-20-7	Xylenes (total)		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	540-59-0	1,2-Dichloroethene(Total)		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	56-23-5	Carbon tetrachloride		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	591-78-6	2-Hexanone		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03

MDL=Minimum Detection Limit
RQ=Result Qualifier

B - The analyte < the RDL but > = the IDL/MDL (inorganic)
U - Analyzed for but not detected above limiting criteria.
C - The Analyte was in the Sample and Blank, Sample < = 5 x Blank

DF=Dilution Factor

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F03-026: F03-026

Group #: WSCF20031369

Sample #	Client ID		CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W030000897	B17RR0	TRENT	67-64-1	Acetone		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	67-66-3	Chloroform		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	71-55-6	1,1,1-Trichloroethane		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	74-83-9	Bromomethane		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	79-34-5	1,1,2,2-Tetrachloroethane		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	74-87-3	Chloromethane		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	75-00-3	Chloroethane		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	75-01-4	Vinyl chloride		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	75-09-2	Methylenechloride		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	75-15-0	Carbon disulfide		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	75-25-2	Bromoform		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	75-27-4	Bromodichloromethane		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	78-87-5	1,2-Dichloropropane		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	78-93-3	2-Butanone		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	79-00-5	1,1,2-Trichloroethane		LA-523-455	U	< 1.00	ug/L	1.00	1.0	10/15/03	10/08/03	10/08/03
W030000897	B17RR0	TRENT	71-36-3	1-Butanol		LA-523-455	U	< 20.0	ug/L	1.00	20	10/15/03	10/08/03	10/08/03

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U - Analyzed for but not detected above limiting criteria.
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DF=Dilution Factor

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

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F03-026

Group #: WSCF20031369

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-MS: The preparation blank contains 3.1 ug/L (ppb) antimony, 0.8 ug/L barium, and 1.4 ug/L chromium.
				NH4-IC:Ammonia detected concentration less than lowest value on the calibration curve.jmv
				IC: Chloride detected at concentration less than the lowest value on the calabration curve. RPD limits do not apply. jmv/wwb
				Sample W030000897 for gross alpha/beta test had poor beta RPD. RPD is not applicable to low level samples.
				8015: The relative percent difference (RPD) for the surrogate 2-bromoethanol is slightly greater than control limits. cgc

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

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WSCF
TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent
Project Number F03-026 :F03-026

Group #: WSCF20031369

Sample #	Client ID	Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W030000897	B17RR0 TRENT	SW-846 8270B Semi-Vols	SMP 14.885 Di-n-butylphthalate	84-74-2	14.88516		3.2	ug/L

RQ=Result Qualifier

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

WSCF
METHOD REFERENCES REPORT

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

LA-212-402	Determination of pH Direct Measurement	
	EPA SW-846 9040B	pH ELECTROMETRIC MEASUREMENT
	EPA-600/4-79-020 150.1	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-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	

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at http://apweb02/asponlinedocs/wscf/sample%20mgmt/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.

	EPA-600/R-94-111 300	DETERMINATION OF INORGANIC ANIONS BY ION CHROMATOGRAPHY
Organics	Organics - Alcohols, Glycols	
	EPA SW-846 8015B	Nonhalogenated Organics Using GC/FID

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at http://apweb02/asponlinedocs/wscf/sample%20mgmt/ProcedureMethodCrossReference.pdf. This document includes on-line links to full-text versions of the procedures and methods, where available.

Report Date: 6-nov-2003

Report#: WSCF20031369

Report WGPPM/0

w13qlog v1 06-nov-2003 12:44:41

W13q Worklist/Batch/QC Report for Group# WSCF20031369

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
20601	2	20985	23873	BLANK		Anions by Ion Chromatography
20601	8	20985	23873	BLANK		Anions by Ion Chromatography
20601	3	20985	23873	LCS		Anions by Ion Chromatography
20601	5	20985	23873	DUP	W030000897	Anions by Ion Chromatography
20601	6	20985	23873	MS	W030000897	Anions by Ion Chromatography
20601	7	20985	23873	MSD	W030000897	Anions by Ion Chromatography
20601	4	20985	23873	SAMPLE	W030000897	Anions by Ion Chromatography
20604	4	20988	23875	LCS		pH Direct Measurement
20604	5	20988	23875	LCS		pH Direct Measurement
20604	9	20988	23875	DUP	W030000870	pH Direct Measurement
20604	7	20988	23875	DUP	W030000882	pH Direct Measurement
20604	22	20988	23875	SAMPLE	W030000897	pH Direct Measurement
20608	3	20992	23877	BLNK-PREP		Ammonia (N) by IC
20608	8	20992	23877	BLNK-PREP		Ammonia (N) by IC
20608	1	20992	23877	LCS		Ammonia (N) by IC
20608	5	20992	23877	DUP	W030000897	Ammonia (N) by IC
20608	6	20992	23877	MS	W030000897	Ammonia (N) by IC
20608	7	20992	23877	MSD	W030000897	Ammonia (N) by IC
20608	4	20992	23877	SAMPLE	W030000897	Ammonia (N) by IC
20618	1	21002	23900	BLANK		Gross Alpha/Gross Beta (AB32)
20618	2	21002	23900	LCS		Gross Alpha/Gross Beta (AB32)
20618	3	21002	23900	DUP	W030000897	Gross Alpha/Gross Beta (AB32)
20618	4	21002	23900	SAMPLE	W030000897	Gross Alpha/Gross Beta (AB32)
			23922	BLANK		SW-846 8270B Semi-Vols
			23922	LCS		SW-846 8270B Semi-Vols
			23922	MS	W030000897	SW-846 8270B Semi-Vols
			23922	MSD	W030000897	SW-846 8270B Semi-Vols
			23922	SAMPLE	W030000897	SW-846 8270B Semi-Vols
			23922	SPK-RPD	W030000897	SW-846 8270B Semi-Vols
			23922	SURR	W030000897	SW-846 8270B Semi-Vols
20653	1	21036	23930	BLANK		ICP-2008 MS All possible metal
20653	2	21036	23930	LCS		ICP-2008 MS All possible metal
20653	4	21036	23930	MS	W030000897	ICP-2008 MS All possible metal
20653	5	21036	23930	MSD	W030000897	ICP-2008 MS All possible metal
20653	3	21036	23930	SAMPLE	W030000897	ICP-2008 MS All possible metal
20635	1	21019	23982	BLANK		ICP Metals Analysis, Grd H20 P
20635	2	21019	23982	LCS		ICP Metals Analysis, Grd H20 P
20635	4	21019	23982	MS	W030000897	ICP Metals Analysis, Grd H20 P
20635	5	21019	23982	MSD	W030000897	ICP Metals Analysis, Grd H20 P
20635	3	21019	23982	SAMPLE	W030000897	ICP Metals Analysis, Grd H20 P
20635	0	21019	23982	SPK-RPD	W030000897	ICP Metals Analysis, Grd H20 P
20785	1	21168	24086	BLANK		Alcohols, Glycols - 8015
20785	2	21168	24086	LCS		Alcohols, Glycols - 8015
20785	4	21168	24086	MS	W030000897	Alcohols, Glycols - 8015
20785	5	21168	24086	MSD	W030000897	Alcohols, Glycols - 8015
20785	3	21168	24086	SAMPLE	W030000897	Alcohols, Glycols - 8015
20785	5	21168	24086	SPK-RPD	W030000897	Alcohols, Glycols - 8015

24087	BLANK		VOA Ground Water Protection
24087	LCS		VOA Ground Water Protection
24087	MS	W030000897	VOA Ground Water Protection
24087	MSD	W030000897	VOA Ground Water Protection
24087	SAMPLE	W030000897	VOA Ground Water Protection
24087	SPK-RPD	W030000897	VOA Ground Water Protection
24087	SURR	W030000897	VOA Ground Water Protection

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031369
Matrix: WATER
Test: Anions by Ion Chromatography

SAF Number: F03-026
Sample Date: 10/08/03
Receive Date:10/08/03

Lab ID: W030000897

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	1.63e-01	23.288	RPD	10/09/03	0.000	20.000	
DUP	Fluoride	16984-48-8	<2.30e-2	n/a	RPD	10/09/03	0.000	20.000	U
DUP	Nitrogen in Nitrite	NO2-N	<1.90e-2	n/a	RPD	10/09/03	0.000	20.000	U
DUP	Nitrogen in Nitrate	NO3-N	<1.30e-2	n/a	RPD	10/09/03	0.000	20.000	U
DUP	Phosphate	14265-44-2	<5.40e-2	n/a	RPD	10/09/03	0.000	20.000	U
DUP	Sulfate	14808-79-8	<1.00e-1	n/a	RPD	10/09/03	0.000	20.000	U
MS	Chloride	16887-00-6	9.38e-01	94.747	% Recov	10/09/03	75.000	125.000	
MS	Fluoride	16984-48-8	4.38e-01	89.571	% Recov	10/09/03	75.000	125.000	
MS	Nitrogen in Nitrite	NO2-N	5.06e-01	100.397	% Recov	10/09/03	75.000	125.000	
MS	Nitrogen in Nitrate	NO3-N	4.18e-01	93.722	% Recov	10/09/03	75.000	125.000	
MS	Phosphate	14265-44-2	8.49e-01	88.530	% Recov	10/09/03	75.000	125.000	
MS	Sulfate	14808-79-8	1.75e+00	88.832	% Recov	10/09/03	75.000	125.000	
MSD	Chloride	16887-00-6	9.90e-01	100.000	% Recov	10/09/03	75.000	125.000	
MSD	Fluoride	16984-48-8	4.65e-01	95.092	% Recov	10/09/03	75.000	125.000	
MSD	Nitrogen in Nitrite	NO2-N	5.19e-01	102.976	% Recov	10/09/03	75.000	125.000	
MSD	Nitrogen in Nitrate	NO3-N	4.26e-01	95.516	% Recov	10/09/03	75.000	125.000	
MSD	Phosphate	14265-44-2	8.66e-01	90.302	% Recov	10/09/03	75.000	125.000	
MSD	Sulfate	14808-79-8	1.81e+00	91.878	% Recov	10/09/03	75.000	125.000	

BATCH QC

BLANK	Chloride	16887-00-6	<5.20e-2	n/a	mg/L	10/09/03	0.000	300.000	U
BLANK	Chloride	16887-00-6	<5.20e-2	n/a	mg/L	10/09/03	0.000	300.000	U
BLANK	Fluoride	16984-48-8	<2.30e-2	n/a	mg/L	10/09/03	0.000	300.000	U
BLANK	Fluoride	16984-48-8	<2.30e-2	n/a	mg/L	10/09/03	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<1.90e-2	n/a	mg/L	10/09/03	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<1.90e-2	n/a	mg/L	10/09/03	0.000	300.000	U

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031369
Matrix: WATER
Test: Anions by Ion Chromatography

SAF Number: F03-026
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Nitrogen in Nitrate	NO3-N	<1.30e-2	n/a	mg/L	10/09/03	0.000	300.000	U
BLANK	Nitrogen in Nitrate	NO3-N	<1.30e-2	n/a	mg/L	10/09/03	0.000	300.000	U
BLANK	Phosphate	14265-44-2	<5.40e-2	n/a	mg/L	10/09/03	0.000	300.000	U
BLANK	Phosphate	14265-44-2	<5.40e-2	n/a	mg/L	10/09/03	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<1.00e-1	n/a	mg/L	10/09/03	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<1.00e-1	n/a	mg/L	10/09/03	0.000	300.000	U
LCS	Chloride	16887-00-6	2.06e+02	103.000	% Recov	10/09/03	80.000	120.000	
LCS	Fluoride	16984-48-8	9.08e+01	91.996	% Recov	10/09/03	80.000	120.000	
LCS	Nitrogen in Nitrite	NO2-N	1.05e+02	105.000	% Recov	10/09/03	80.000	120.000	
LCS	Nitrogen in Nitrate	NO3-N	8.91e+01	98.890	% Recov	10/09/03	80.000	120.000	
LCS	Phosphate	14265-44-2	1.80e+02	92.879	% Recov	10/09/03	80.000	120.000	
LCS	Sulfate	14808-79-8	3.75e+02	93.985	% Recov	10/09/03	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031369
Matrix: WATER
Test: pH Direct Measurement

SAF Number: F03-026
Sample Date: 09/25/03
Receive Date:10/01/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W030000870									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	pH Direct Measurement	PH	5.404	2.828	RPD	10/09/03	0.000	20.000	
Lab ID: W030000882									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	pH Direct Measurement	PH	8.178	0.208	RPD	10/09/03	0.000	20.000	
BATCH QC									
LCS	pH Direct Measurement	PH	8.023	1.003	Ratio	10/09/03	0.900	1.100	
LCS	pH Direct Measurement	PH	8.100	1.012	Ratio	10/09/03	0.900	1.100	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031369
Matrix: WATER
Test: Ammonia (N) by IC

SAF Number: F03-026
Sample Date: 10/08/03
Receive Date:10/08/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W030000897									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Ammonia (N) by IC	7664-41-7	<4.00e-3	n/a	RPD	10/09/03	0.000	20.000	U
MS	Ammonia (N) by IC	7664-41-7	1.50e-01	90.909	% Recov	10/09/03	75.000	125.000	
MSD	Ammonia (N) by IC	7664-41-7	1.52e-01	92.121	% Recov	10/09/03	75.000	125.000	
BATCH QC									
BLNK-PREP	Ammonia (N) by IC	7664-41-7	<4.00e-3	n/a	mg/L	10/09/03	0.000	30.000	U
BLNK-PREP	Ammonia (N) by IC	7664-41-7	<4.00e-3	n/a	mg/L	10/09/03	0.000	30.000	U
LCS	Ammonia (N) by IC	7664-41-7	7.51e+01	90.591	% Recov	10/09/03	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031369
Matrix: WATER
Test: Gross Alpha/Gross Beta (AB32)

SAF Number: F03-026
Sample Date: 10/08/03
Receive Date:10/08/03

Lab ID: W030000897

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	1.84e-01	2.198	RPD	10/14/03	0.000	20.000	
DUP	Gross beta	12587-47-2	1.5	133.333	RPD	10/14/03	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	9.1e-04	0.001	pCi/L	10/14/03	-10.000	10.000	
BLANK	Gross beta	12587-47-2	9.5e-01	0.950	pCi/L	10/14/03	-10.000	10.000	
LCS	Gross alpha	12587-46-1	57.8	102.975	%rec	10/14/03	75.000	125.000	
LCS	Gross beta	12587-47-2	61.1	86.679	%rec	10/14/03	75.000	125.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031369
Matrix: WATER
Test: SW-846 8270B Semi-Vols

SAF Number: F03-026
Sample Date: 10/08/03
Receive Date:10/08/03

Lab ID: W030000897
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	33.980	69.300	% Recov	10/15/03	50.000	120.000	
MS	1,4-Dichlorobenzene	106-46-7	31.311	63.900	% Recov	10/15/03	41.000	113.000	
MS	2,4-Dinitrotoluene	121-14-2	36.331	74.100	% Recov	10/15/03	65.000	109.000	
MS	2-Fluorophenol	367-12-4	40.408	82.400	% Recov	10/15/03	50.000	110.000	
MS	Acenaphthene	83-32-9	36.254	74.000	% Recov	10/15/03	62.000	112.000	
MS	4-Chloro-3-methylphenol	59-50-7	56.341	76.600	% Recov	10/15/03	59.000	115.000	
MS	2-Chlorophenol	95-57-8	59.924	81.500	% Recov	10/15/03	69.000	111.000	
MS	N-Nitrosodi-n-dipropylamine	621-64-7	41.754	85.200	% Recov	10/15/03	69.000	115.000	
MS	2-Fluorobiphenyl	321-60-8	34.728	70.800	% Recov	10/15/03	58.000	109.000	
MS	Phenol	108-95-2	60.223	81.900	% Recov	10/15/03	59.000	115.000	
MS	Nitrobenzene-d5	4165-60-0	38.161	77.800	% Recov	10/15/03	60.000	118.000	
MS	4-Nitrophenol	100-02-7	51.113	69.500	% Recov	10/15/03	32.000	130.000	
MS	Pentachlorophenol	87-86-5	49.303	67.100	% Recov	10/15/03	51.000	121.000	
MS	Phenol-d5	4165-62-2	35.842	73.100	% Recov	10/15/03	59.000	116.000	
MS	Pyrene	129-00-0	37.469	76.400	% Recov	10/15/03	58.000	116.000	
MS	2,4,6-Tribromophenol	118-79-6	36.636	74.700	% Recov	10/15/03	60.000	120.000	
MS	Terphenyl-d14 (7Cl)	98904-43-9	36.327	74.100	% Recov	10/15/03	60.000	120.000	
MSD	1,2,4-Trichlorobenzene	120-82-1	34.042	70.100	% Recov	10/15/03	50.000	120.000	
MSD	1,4-Dichlorobenzene	106-46-7	32.564	67.100	% Recov	10/15/03	41.000	113.000	
MSD	2,4-Dinitrotoluene	121-14-2	39.088	80.500	% Recov	10/15/03	65.000	109.000	
MSD	2-Fluorophenol	367-12-4	36.070	74.300	% Recov	10/15/03	50.000	110.000	
MSD	Acenaphthene	83-32-9	39.330	81.000	% Recov	10/15/03	62.000	112.000	
MSD	4-Chloro-3-methylphenol	59-50-7	58.881	80.900	% Recov	10/15/03	59.000	115.000	
MSD	2-Chlorophenol	95-57-8	55.274	75.900	% Recov	10/15/03	69.000	111.000	
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	38.465	79.200	% Recov	10/15/03	69.000	115.000	
MSD	2-Fluorobiphenyl	321-60-8	39.956	82.300	% Recov	10/15/03	58.000	109.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031369
Matrix: WATER
Test: SW-846 8270B Semi-Vols

SAF Number: F03-026
Sample Date: 10/08/03
Receive Date:10/08/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	Phenol	108-95-2	58.164	79.900	% Recov	10/15/03	59.000	115.000	
MSD	Nitrobenzene-d5	4165-60-0	37.588	77.400	% Recov	10/15/03	60.000	118.000	
MSD	4-Nitrophenol	100-02-7	54.743	75.200	% Recov	10/15/03	32.000	130.000	
MSD	Pentachlorophenol	87-86-5	52.815	72.500	% Recov	10/15/03	51.000	121.000	
MSD	Phenol-d5	4165-62-2	33.208	68.400	% Recov	10/15/03	59.000	116.000	
MSD	Pyrene	129-00-0	41.365	85.200	% Recov	10/15/03	58.000	116.000	
MSD	2,4,6-Tribromophenol	118-79-6	42.083	86.700	% Recov	10/15/03	60.000	120.000	
MSD	Terphenyl-d14 (7Cl)	98904-43-9	36.412	75.000	% Recov	10/15/03	60.000	120.000	
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	70.100	1.148	RPD	10/15/03	0.000	25.000	
SPK-RPD	1,4-Dichlorobenzene	106-46-7	67.100	4.885	RPD	10/15/03	0.000	25.000	
SPK-RPD	2,4-Dinitrotoluene	121-14-2	80.500	8.279	RPD	10/15/03	0.000	25.000	
SPK-RPD	2-Fluorophenol	367-12-4	74.300	10.338	RPD	10/15/03	0.000	25.000	
SPK-RPD	Acenaphthene	83-32-9	81.000	9.032	RPD	10/15/03	0.000	25.000	
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	80.900	5.460	RPD	10/15/03	0.000	25.000	
SPK-RPD	2-Chlorophenol	95-57-8	75.900	7.116	RPD	10/15/03	0.000	25.000	
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	79.200	7.299	RPD	10/15/03	0.000	25.000	
SPK-RPD	2-Fluorobiphenyl	321-60-8	82.300	15.023	RPD	10/15/03	0.000	25.000	
SPK-RPD	Phenol	108-95-2	79.900	2.472	RPD	10/15/03	0.000	16.000	
SPK-RPD	Nitrobenzene-d5	4165-60-0	77.400	0.515	RPD	10/15/03	0.000	25.000	
SPK-RPD	4-Nitrophenol	100-02-7	75.200	7.878	RPD	10/15/03	0.000	25.000	
SPK-RPD	Pentachlorophenol	87-86-5	72.500	7.736	RPD	10/15/03	0.000	25.000	
SPK-RPD	Phenol-d5	4165-62-2	68.400	6.643	RPD	10/15/03	0.000	25.000	
SPK-RPD	Pyrene	129-00-0	85.200	10.891	RPD	10/15/03	0.000	25.000	
SPK-RPD	2,4,6-Tribromophenol	118-79-6	86.700	14.870	RPD	10/15/03	0.000	25.000	
SPK-RPD	Terphenyl-d14 (7Cl)	98904-43-9	75.000	1.207	RPD	10/15/03	0.000	25.000	
SURR	2-Fluorophenol	367-12-4	34.177	69.700	% Recov	10/15/03	50.000	110.000	
SURR	2-Fluorobiphenyl	321-60-8	37.488	76.500	% Recov	10/15/03	58.000	109.000	
SURR	Nitrobenzene-d5	4165-60-0	36.404	74.300	% Recov	10/15/03	60.000	118.000	
SURR	Phenol-d5	4165-62-2	39.474	80.500	% Recov	10/15/03	59.000	116.000	
SURR	2,4,6-Tribromophenol	118-79-6	38.589	78.700	% Recov	10/15/03	60.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031369
Matrix: WATER
Test: SW-846 8270B Semi-Vols

SAF Number: F03-026
Sample Date: 10/08/03
Receive Date:10/08/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SURR	Terphenyl-d14 (7Cl)	98904-43-9	35.100	71.600	% Recov	10/15/03	60.000	120.000	
BATCH QC									
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 3.0	n/a	ug/L	10/15/03			U
BLANK	1,4-Dichlorobenzene	106-46-7	< 5.0	n/a	ug/L	10/15/03			U
BLANK	2,4-Dinitrotoluene	121-14-2	< 1.8	n/a	ug/L	10/15/03			U
BLANK	2-Fluorophenol	367-12-4	35.648	71.300	% Recov	10/15/03	50.000	110.000	
BLANK	Acenaphthene	83-32-9	< 2.4	n/a	ug/L	10/15/03			U
BLANK	4-Chloro-3-methylphenol	59-50-7	< 1.3	n/a	ug/L	10/15/03			U
BLANK	2-Chlorophenol	95-57-8	< 1.7	n/a	ug/L	10/15/03			U
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 1.7	n/a	ug/L	10/15/03			U
BLANK	2-Fluorobiphenyl	321-60-8	36.323	72.600	% Recov	10/15/03	58.000	109.000	
BLANK	Phenol	108-95-2	< 1.7	n/a	ug/L	10/15/03			U
BLANK	Nitrobenzene-d5	4165-60-0	35.225	70.400	% Recov	10/15/03	60.000	118.000	
BLANK	4-Nitrophenol	100-02-7	< 1.4	n/a	ug/L	10/15/03			U
BLANK	Pentachlorophenol	87-86-5	< 1.7	n/a	ug/L	10/15/03			U
BLANK	Phenol-d5	4165-62-2	36.586	73.200	% Recov	10/15/03	59.000	116.000	
BLANK	Pyrene	129-00-0	< 2.1	n/a	ug/L	10/15/03			U
BLANK	Tributyl phosphate	126-73-8	< 2.5	n/a	ug/L	10/15/03			U
BLANK	2,4,6-Tribromophenol	118-79-6	35.431	70.900	% Recov	10/15/03	60.000	120.000	
BLANK	Terphenyl-d14 (7Cl)	98904-43-9	43.634	87.300	% Recov	10/15/03	60.000	120.000	
LCS	1,2,4-Trichlorobenzene	120-82-1	36.808	73.600	% Recov	10/15/03	46.000	107.000	
LCS	1,4-Dichlorobenzene	106-46-7	32.307	64.600	% Recov	10/15/03	42.000	111.000	
LCS	2,4-Dinitrotoluene	121-14-2	36.105	72.200	% Recov	10/15/03	59.000	106.000	
LCS	2-Fluorophenol	367-12-4	38.942	77.900	% Recov	10/15/03	50.000	110.000	
LCS	Acenaphthene	83-32-9	36.561	73.100	% Recov	10/15/03	61.000	116.000	
LCS	4-Chloro-3-methylphenol	59-50-7	60.864	81.200	% Recov	10/15/03	61.000	106.000	
LCS	2-Chlorophenol	95-57-8	57.959	77.300	% Recov	10/15/03	66.000	106.000	
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	41.898	83.800	% Recov	10/15/03	71.000	114.000	
LCS	2-Fluorobiphenyl	321-60-8	35.922	71.800	% Recov	10/15/03	58.000	109.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031369
Matrix: WATER
Test: SW-846 8270B Semi-Vols

SAF Number: F03-026
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
LCS	Phenol	108-95-2	59.994	80.000	% Recov	10/15/03	67.000	105.000	
LCS	Nitrobenzene-d5	4165-60-0	35.542	71.100	% Recov	10/15/03	60.000	118.000	
LCS	4-Nitrophenol	100-02-7	49.025	65.400	% Recov	10/15/03	32.000	118.000	
LCS	Pentachlorophenol	87-86-5	47.694	63.600	% Recov	10/15/03	62.000	114.000	
LCS	Phenol-d5	4165-62-2	34.662	69.300	% Recov	10/15/03	59.000	116.000	
LCS	Pyrene	129-00-0	42.364	84.700	% Recov	10/15/03	66.000	118.000	
LCS	2,4,6-Tribromophenol	118-79-6	39.450	78.900	% Recov	10/15/03	60.000	120.000	
LCS	Terphenyl-d14 (7Cl)	98904-43-9	41.369	82.700	% Recov	10/15/03	60.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031369
Matrix: WATER
Test: ICP-2008 MS All possible metal

SAF Number: F03-026
Sample Date: 10/08/03
Receive Date:10/08/03

Lab ID: W030000897

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	40.9	102.250	% Recov	10/16/03	70.000	130.000	
MS	Arsenic	7440-38-2	39.3	98.250	% Recov	10/16/03	70.000	130.000	
MS	Barium	7440-39-3	40.593	101.483	% Recov	10/16/03	70.000	130.000	
MS	Beryllium	7440-41-7	43.32	108.300	% Recov	10/16/03	70.000	130.000	
MS	Chromium	7440-47-3	41.073	102.683	% Recov	10/16/03	70.000	130.000	
MS	Copper	7440-50-8	41.498	103.745	% Recov	10/16/03	70.000	130.000	
MS	Nickel	7440-02-0	41.546	103.865	% Recov	10/16/03	70.000	130.000	
MS	Lead	7439-92-1	40.6	101.500	% Recov	10/16/03	70.000	130.000	
MS	Antimony	7440-36-0	43.683	109.207	% Recov	10/16/03	70.000	130.000	
MS	Selenium	7782-49-2	34.77	86.925	% Recov	10/16/03	70.000	130.000	
MSD	Silver	7440-22-4	41.1	102.750	% Recov	10/16/03	70.000	130.000	
MSD	Arsenic	7440-38-2	39.39	98.475	% Recov	10/16/03	70.000	130.000	
MSD	Barium	7440-39-3	40.863	102.157	% Recov	10/16/03	70.000	130.000	
MSD	Beryllium	7440-41-7	45.02	112.550	% Recov	10/16/03	70.000	130.000	
MSD	Chromium	7440-47-3	41.093	102.733	% Recov	10/16/03	70.000	130.000	
MSD	Copper	7440-50-8	41.018	102.545	% Recov	10/16/03	70.000	130.000	
MSD	Nickel	7440-02-0	41.056	102.640	% Recov	10/16/03	70.000	130.000	
MSD	Lead	7439-92-1	40.76	101.900	% Recov	10/16/03	70.000	130.000	
MSD	Antimony	7440-36-0	43.733	109.332	% Recov	10/16/03	70.000	130.000	
MSD	Selenium	7782-49-2	35.34	88.350	% Recov	10/16/03	70.000	130.000	

BATCH QC

BLANK	Silver	7440-22-4	0.362	0.362	ug/L	10/16/03	-0.440	0.440	
BLANK	Arsenic	7440-38-2	<0.3	n/a	ug/L	10/16/03	-0.660	0.660	U
BLANK	Barium	7440-39-3	0.771	0.771	ug/L	10/16/03	-0.440	0.440	
BLANK	Beryllium	7440-41-7	<0.3	n/a	ug/L	10/16/03	-0.660	0.660	U

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031369
Matrix: WATER
Test: ICP-2008 MS All possible metal

SAF Number: F03-026
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	1.354	1.354	ug/L	10/16/03	-0.660	0.660	
BLANK	Copper	7440-50-8	0.848	0.848	ug/L	10/16/03	-1.100	1.100	
BLANK	Nickel	7440-02-0	<0.5	n/a	ug/L	10/16/03	-1.100	1.100	U
BLANK	Lead	7439-92-1	<1.2	n/a	ug/L	10/16/03	-2.640	2.640	U
BLANK	Antimony	7440-36-0	3.158	3.158	ug/L	10/16/03	-1.100	1.100	
BLANK	Selenium	7782-49-2	<0.3	n/a	ug/L	10/16/03	-0.660	0.660	U
LCS	Silver	7440-22-4	40.45	101.125	% Recov	10/16/03	85.000	115.000	
LCS	Arsenic	7440-38-2	39.13	97.825	% Recov	10/16/03	85.000	115.000	
LCS	Barium	7440-39-3	41.14	102.850	% Recov	10/16/03	85.000	115.000	
LCS	Beryllium	7440-41-7	44.15	110.375	% Recov	10/16/03	85.000	115.000	
LCS	Chromium	7440-47-3	41.04	102.600	% Recov	10/16/03	85.000	115.000	
LCS	Copper	7440-50-8	41.51	103.775	% Recov	10/16/03	85.000	115.000	
LCS	Nickel	7440-02-0	41.03	102.575	% Recov	10/16/03	85.000	115.000	
LCS	Lead	7439-92-1	40.96	102.400	% Recov	10/16/03	85.000	115.000	
LCS	Antimony	7440-36-0	44.88	112.200	% Recov	10/16/03	85.000	115.000	
LCS	Selenium	7782-49-2	34.9	87.250	% Recov	10/16/03	85.000	115.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031369
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

SAF Number: F03-026
Sample Date: 10/08/03
Receive Date:10/08/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W030000897									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Bismuth	7440-69-9	1064.5	106.450	% Recov	10/16/03	75.000	125.000	
MSD	Bismuth	7440-69-9	1048.5	104.850	% Recov	10/16/03	75.000	125.000	
SPK-RPD	Bismuth	7440-69-9	104.850	1.514	RPD	10/16/03	0.000	20.000	
BATCH QC									
BLANK	Bismuth	7440-69-9	1.8	1.800	ug/L	10/16/03	-6.000	6.000	
LCS	Bismuth	7440-69-9	1024.	102.400	% Recov	10/16/03	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031369
Matrix: WATER
Test: Alcohols, Glycols - 8015

SAF Number: F03-026
Sample Date: 10/08/03
Receive Date: 10/08/03

Lab ID: W030000897

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MS	2-Bromoethanol	540-51-2	7590	75.900	%Recove	10/14/03	70.000	125.000	
MS	Ethylene glycol	107-21-1	8200	82.000	%Recove	10/14/03	75.000	125.000	
MSD	2-Bromoethanol	540-51-2	10800	108.000	%Recove	10/14/03	70.000	125.000	
MSD	Ethylene glycol	107-21-1	9600	96.000	%Recove	10/14/03	75.000	125.000	
SPK-RPD	2-Bromoethanol	540-51-2	108.000	34.910	RPD	10/14/03	0.000	20.000	
SPK-RPD	Ethylene glycol	107-21-1	96.000	15.730	RPD	10/14/03	0.000	20.000	

BATCH QC

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	2-Bromoethanol	540-51-2	8080	0.808	ug/Kg	10/14/03	0.000	10.000	
BLANK	Ethylene glycol	107-21-1	<5000	n/a	ug/L	10/14/03	0.000	5.000	U
LCS	2-Bromoethanol	540-51-2	8160	81.600	%Recove	10/14/03	70.000	130.000	
LCS	Ethylene glycol	107-21-1	10200	102.000	%Recove	10/14/03	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031369
Matrix: WATER
Test: VOA Ground Water Protection

SAF Number: F03-026
Sample Date: 10/08/03
Receive Date:10/08/03

Lab ID: W030000897
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	26.000	104.000	% Recov	10/15/03	63.000	117.000	
MS	Benzene	71-43-2	26.000	104.000	% Recov	10/15/03	75.000	129.000	
MS	4-Bromofluorobenzene	460-00-4	47.000	94.000	% Recov	10/15/03	84.000	116.000	
MS	Chlorobenzene	108-90-7	26.000	104.000	% Recov	10/15/03	79.000	119.000	
MS	1,2-Dichloroethane-d4	17060-07-0	52.000	104.000	% Recov	10/15/03	82.000	136.000	
MS	Toluene-d8	2037-26-5	51.000	102.000	% Recov	10/15/03	89.000	119.000	
MS	Toluene	108-88-3	27.000	108.000	% Recov	10/15/03	76.000	120.000	
MS	Trichloroethene	79-01-6	26.000	104.000	% Recov	10/15/03	73.000	123.000	
MSD	1,1-Dichloroethene	75-35-4	26.000	104.000	% Recov	10/15/03	63.000	117.000	
MSD	Benzene	71-43-2	27.000	108.000	% Recov	10/15/03	75.000	129.000	
MSD	4-Bromofluorobenzene	460-00-4	48.000	96.000	% Recov	10/15/03	84.000	116.000	
MSD	Chlorobenzene	108-90-7	26.000	104.000	% Recov	10/15/03	79.000	119.000	
MSD	1,2-Dichloroethane-d4	17060-07-0	52.000	104.000	% Recov	10/15/03	82.000	136.000	
MSD	Toluene-d8	2037-26-5	51.000	102.000	% Recov	10/15/03	89.000	119.000	
MSD	Toluene	108-88-3	27.000	108.000	% Recov	10/15/03	76.000	120.000	
MSD	Trichloroethene	79-01-6	26.000	104.000	% Recov	10/15/03	73.000	123.000	
SPK-RPD	1,1-Dichloroethene	75-35-4	104.000	0.000	RPD	10/15/03	0.000	10.000	
SPK-RPD	Benzene	71-43-2	108.000	3.774	RPD	10/15/03	0.000	10.000	
SPK-RPD	Chlorobenzene	108-90-7	104.000	0.000	RPD	10/15/03	0.000	10.000	
SPK-RPD	1,2-Dichloroethane-d4	17060-07-0	104.000	0.000	RPD	10/15/03	0.000	25.000	
SPK-RPD	Toluene-d8	2037-26-5	102.000	0.000	RPD	10/15/03	0.000	25.000	
SPK-RPD	Toluene	108-88-3	108.000	0.000	RPD	10/15/03	0.000	10.000	
SPK-RPD	Trichloroethene	79-01-6	104.000	0.000	RPD	10/15/03	0.000	10.000	
SURR	4-Bromofluorobenzene	460-00-4	48.000	96.000	% Recov	10/15/03	84.000	116.000	
SURR	1,2-Dichloroethane-d4	17060-07-0	52.000	104.000	% Recov	10/15/03	82.000	136.000	
SURR	Toluene-d8	2037-26-5	51.000	102.000	% Recov	10/15/03	89.000	119.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031369
Matrix: WATER
Test: VOA Ground Water Protection

SAF Number: F03-026
Sample Date: 10/08/03
Receive Date:10/08/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BATCH QC									
BLANK	1,1-Dichloroethane	75-34-3	< 1.0	n/a	ug/L	10/15/03			U
BLANK	1,1,1-Trichloroethane	71-55-6	< 1.0	n/a	ug/L	10/15/03			U
BLANK	1,1,2-Trichloroethane	79-00-5	< 1.0	n/a	ug/L	10/15/03			U
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	n/a	ug/L	10/15/03	0.000	5.000	U
BLANK	1,1-Dichloroethene	75-35-4	< 1.0	n/a	ug/L	10/15/03			U
BLANK	1,2-Dichloroethane	107-06-2	< 1.0	n/a	ug/L	10/15/03			U
BLANK	1,2-Dichloroethene(Total)	540-59-0	< 1.0	n/a	ug/L	10/15/03			U
BLANK	1-Butanol	71-36-3	< 20	n/a	ug/L	10/15/03			U
BLANK	2-Hexanone	591-78-6	< 1.0	n/a	ug/L	10/15/03			U
BLANK	4-Methyl-2-Pentanone	108-10-1	< 1.0	n/a	ug/L	10/15/03			U
BLANK	Acetone	67-64-1	< 1.0	n/a	ug/L	10/15/03			U
BLANK	Bromodichloromethane	75-27-4	< 1.0	n/a	ug/L	10/15/03			U
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/L	10/15/03			U
BLANK	4-Bromofluorobenzene	460-00-4	48.000	96.000	% Recov	10/15/03	84.000	116.000	
BLANK	Bromoform	75-25-2	< 1.0	n/a	ug/L	10/15/03			U
BLANK	Carbon disulfide	75-15-0	< 1.0	n/a	ug/L	10/15/03			U
BLANK	Carbon tetrachloride	56-23-5	< 1.0	n/a	ug/L	10/15/03			U
BLANK	Dibromochloromethane	124-48-1	< 1.0	n/a	ug/L	10/15/03			U
BLANK	Chloroform	67-66-3	< 1.0	n/a	ug/L	10/15/03			U
BLANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/L	10/15/03			U
BLANK	cis-1,3-Dichloropropene	10061-01-5	< 1.0	n/a	ug/L	10/15/03			U
BLANK	Chloroethane	75-00-3	< 1.0	n/a	ug/L	10/15/03			U
BLANK	1,2-Dichloroethane-d4	17060-07-0	50.000	100.000	% Recov	10/15/03	82.000	136.000	
BLANK	1,2-Dichloropropane	78-87-5	< 1.0	n/a	ug/L	10/15/03			U
BLANK	Ethylbenzene	100-41-4	< 1.0	n/a	ug/L	10/15/03			U
BLANK	Bromomethane	74-83-9	< 1.0	n/a	ug/L	10/15/03			U
BLANK	Chloromethane	74-87-3	< 1.0	n/a	ug/L	10/15/03			U
BLANK	2-Butanone	78-93-3	< 1.0	n/a	ug/L	10/15/03			U

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031369
Matrix: WATER
Test: VOA Ground Water Protection

SAF Number: F03-026
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Methylenechloride	75-09-2	< 1.0	n/a	ug/L	10/15/03			U
BLANK	Tetrachloroethene	127-18-4	< 1.0	n/a	ug/L	10/15/03			U
BLANK	Styrene	100-42-5	< 1.0	n/a	ug/L	10/15/03			U
BLANK	Xylenes (total)	1330-20-7	< 1.0	n/a	ug/L	10/15/03	0.000	5.000	U
BLANK	Toluene-d8	2037-26-5	50.000	100.000	% Recov	10/15/03	89.000	119.000	
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/L	10/15/03			U
BLANK	trans-1,3-Dichloropropene	10061-02-6	< 1.0	n/a	ug/L	10/15/03			U
BLANK	Trichloroethene	79-01-6	< 1.0	n/a	ug/L	10/15/03			U
BLANK	Vinyl chloride	75-01-4	< 1.0	n/a	ug/L	10/15/03			U
LCS	1,1-Dichloroethene	75-35-4	26.000	104.000	% Recov	10/15/03	70.000	130.000	
LCS	Benzene	71-43-2	27.000	108.000	% Recov	10/15/03	70.000	130.000	
LCS	4-Bromofluorobenzene	460-00-4	48.000	96.000	% Recov	10/15/03	84.000	116.000	
LCS	Chlorobenzene	108-90-7	27.000	108.000	% Recov	10/15/03	70.000	130.000	
LCS	1,2-Dichloroethane-d4	17060-07-0	51.000	102.000	% Recov	10/15/03	82.000	136.000	
LCS	Toluene-d8	2037-26-5	51.000	102.000	% Recov	10/15/03	89.000	119.000	
LCS	Toluene	108-88-3	28.000	112.000	% Recov	10/15/03	70.000	130.000	
LCS	Trichloroethene	79-01-6	27.000	108.000	% Recov	10/15/03	70.000	130.000	

W1141-03-SLF-063

ATTACHMENT 3

SAMPLE RECEIPT INFORMATION

Consisting of 2 pages
Cover page not included

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

11/6/03
FILE ICB

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Ground Water Protection Program
Richland, WA 99352
Attn: Steve Trent

Customer Code: GPP
PO#: 119143/ES10
Group#: 20031369
Project#: F03-026
Proj Mgr: Steve Trent A0-21
Phone: 373-5869

The following samples were received from you on 10/08/03. 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	Matrix	Sample Date
W030000897	B17RR0 TRENT	Water	10/08/03

Tests Scheduled: @2008, @8015GPP, @AB-32, @GPP6010, @IC-30, @SVOCGPP, @VOA-GPP, NH4-IC, PH-30

Test Acronym Description

Test Acronym	Description
@2008	ICP-2008 MS All possible metal
@8015GPP	Alcohols, Glycols - 8015
@AB-32	Gross Alpha/Gross Beta (AB32)
@GPP6010	ICP Metals Analysis, Grd H20 P
@IC-30	Anions by Ion Chromatography
@SVOCGPP	SW-846 8270B Semi-Vols
@VOA-GPP	VOA Ground Water Protection
NH4-IC	Ammonia (N) by IC
PH-30	pH Direct Measurement

FH-Central Plateau Project	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F03-026-001	Page 1 of 1

Collector Pope/Hughes/Pfister	Company Contact MW Benecke	Telephone No. 376-002	Project Coordinator TRENT, SJ
Project Designation 200-LW-1/LW-2 Characterization - Water	Sampling Location 200-LW-1/LW-2 Characterization		SAF No. F03-026
Ice Chest No.	Field Logbook No.	COA 119143ES10	Method of Shipment Government Vehicle
Shipped To Waste Sampling & Characterization	Offsite Property No. N/A		Bill of Lading/Air Bill No. N/A

Price Code 7N

Air Quality ☐

Data Turnaround 45 Days

POSSIBLE SAMPLE HAZARDS/REMARKS

N/A

Special Handling and/or Storage

N/A

Preservation	HCl or H2SO4 to pH <2 Coo	Cool 4C	HNO3 to pH <2	Cool 4C	None	None	Cool 4C	HNO3 to pH <2		
Type of Container	aGs*	aG	P	P	P	P	aGs*	P		
No. of Container(s)	3	4	1	1	1	1	3	2		
Volume	40mL	1000mL	500mL	500mL	120mL	250mL	40mL	1000mL		
SAMPLE ANALYSIS 20031369	VOA - 8260A (TCL); VOA - 8260A (Add-On) {1-Butanol}	See item (1) in Special Instructions.	See item (2) in Special Instructions.	See item (3) in Special Instructions.	pH (Water) - 9040	Cations (IC) - 300.7 (Nitrogen in ammonium)	Alcohols, Glycols, & Ketones - 8015 (Ethylene glycol)	Gross Alpha; Gross Beta		

Sample No.	Matrix *	Sample Date	Sample Time										
B17RR0	WATER	10/8/03	0900	X	X	X	X	X	X	X	X		
W030000897													

CHAIN OF POSSESSION		Sign/Print Names	
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
[signature]	10-8-03 1105	[signature]	10/8/03 1105
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

** Fluor Hanford acknowledges that the analytical holding time for Nitrate, Nitrite and Phosphate by EPA Method 300.0 will not be met.

** The laboratory is to analyze pH within 24 hours of sample receipt.

(1) Semi-VOA - 8270A (TCL) {Phenol}; Semi-VOA -- 8270A (Add-On) {Tributyl phosphate}

(2) ICP/MS - 200.8 (TAL) {Antimony, Barium, Chromium, Copper, Nickel, Silver}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Selenium}; ICP Metals - 6010A (Add-on) {Bismuth}

(3) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphate, Sulfate}

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

(03/01/2002)