RECEIVED OCTOBER 29, 2007

0077113

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

FLUOR

Memorandum

M4W41-SLF-07-769

To: H. Hampt E6-35 Date: October 23, 2007

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

cc: w/Attachments

T. F. Dale	S3-30	J. E. Trechter	S3-30
D. Felmy (PNNL)	K6-75	S. J. Trent	E6-35
H. K. Meznarich	S3-30	D. D. Wright	S3-30
P. D. Mix	S3-30	File/LB	

Subject: FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20071603

Reference:
1) Letter of Instruction for Analytical Services for the Groundwater Performance Assessment Project and Analytical Laboratory Transition Plan, FH-0602422, September 19, 2006
2) HNF-SD-CD-QAPP-017, Rev. 8, Waste Sampling & Characterization Facility Quality Assurance Plan

This transmittal contains the following information for sample delivery group WSCF20071603:

- Cover Sheet (Attachment 1)
- Narrative (Attachment 2)
- Analytical Results (Attachment 3)
- Sample Receipt Information (Attachment 4)

SLF/grf

Attachments 4

RECEIVED
MAY 06 2008
EDMC

M4W41-SLF-07-769

ATTACHMENT 1

COVER SHEET

Consisting of 3 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20071603
Data Deliverable Date: 25-oct-2007
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
S07-008	B1PBK2	W07P001794	WATER
S07-009	B1PFT2	W07P001839	WATER
	B1PFT3	W07P001840	WATER
W07-009	B1PJ97	W07P001827	WATER
	B1PJ98	W07P001828	WATER
	B1PJ99	W07P001829	WATER
	B1PJB0	W07P001830	WATER
	B1PJB3	W07P001799	WATER
	B1PJB4	W07P001814	WATER
	B1PJC0	W07P001831	WATER
	B1PJC1	W07P001832	WATER
	B1PJC2	W07P001833	WATER
	B1PJC3	W07P001834	WATER
	B1PJC6	W07P001800	WATER
	B1PJC7	W07P001815	WATER
	B1PJD3	W07P001835	WATER
	B1PJD4	W07P001836	WATER
	B1PJD5	W07P001837	WATER
	B1PJD6	W07P001838	WATER
	B1PJD9	W07P001810	WATER
	B1PJF0	W07P001825	WATER
	B1PJH1	W07P001807	WATER
	B1PJH2	W07P001822	WATER
	B1PJJ2	W07P001795	WATER
	B1PJJ3	W07P001796	WATER
	B1PJJ6	W07P001801	WATER
	B1PJJ7	W07P001816	WATER
	B1PJK0	W07P001802	WATER
	B1PJK1	W07P001817	WATER
	B1PJK4	W07P001797	WATER
	B1PJK5	W07P001812	WATER
	B1PJK8	W07P001811	WATER
	B1PJK9	W07P001826	WATER
	B1PJL2	W07P001803	WATER
	B1PJL3	W07P001818	WATER
	B1PJL6	W07P001798	WATER
	B1PJL7	W07P001813	WATER
	B1PJN8	W07P001809	WATER
	B1PJN9	W07P001824	WATER
	B1PJP1	W07P001806	WATER
	B1PJP2	W07P001821	WATER
	B1PJP4	W07P001804	WATER

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20071603
Data Deliverable Date: 25-oct-2007

Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
	B1PJP5	W07P001819	WATER
	B1PJP9	W07P001805	WATER
	B1PJR0	W07P001820	WATER
	B1PJR2	W07P001808	WATER
	B1PJR3	W07P001823	WATER

M4W41-SLF-07-769

ATTACHMENT 2

NARRATIVE

Consisting of 5 pages
Including cover page

Sample Delivery Group	**WSCF20071603**
Sample Matrix	**Water**
Data Deliverable	**Summary Report**

Introduction

Forty-seven (47) groundwater samples were received at the WSCF Laboratory on September 9, 2007. Samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter.

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

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

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report,* pages 18 through 21, for a complete listing of approved analytical methods.

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See pages 86 through 91 for QC details. Analytical Note(s):

- Sample results were D flagged if dilution(s) were required.
- Sample results that were less than the reportable limit, however greater than the method detection limit, were B flagged.
- Nitrate-N – Matrix Spike Duplicate recovery exceeded established laboratory limits. Affected sample results were N flagged.

All QC controls are within the established limits.

Cyanide – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See page 92 for QC details.

All QC controls are within the established limits.

Hexavalent Chromium – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per the GRP Letter of Instruction. See page 93 for QC details.

All QC controls are within the established limits.

ICP-AES Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per the GRP Letter of Instruction. See pages 94 through 100 for QC details.

Batch QC (B1PJJ2) -

- Barium, Chromium, Cobalt, Copper, Iron, Magnesium, Manganese, Nickel, Silver, Vanadium and Zinc contamination detected in the Blank was evaluated and affected sample results were C flagged.

- Calcium, Magnesium and Sodium – insufficient spike concentrations. Sample concentrations were greater than four times the spike concentration. For results higher than the highest calibration standard, a check standard was analyzed to ensure acceptable sample results.

Batch QC (B1PJJ7) –

- Barium, Chromium, Cobalt, Copper, Magnesium, Manganese, Nickel, Silver, Vanadium and Zinc contamination detected in the Blank was evaluated and affected sample results were C flagged.

- Calcium, Magnesium and Sodium – insufficient spike concentrations. Sample concentrations were greater than four times the spike concentration. For results higher than the highest calibration standard, a check standard was analyzed to ensure acceptable sample results.

All other QC controls are within the established limits

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per the GRP Letter of Instruction. See page 101 for QC details. Analytical Note(s):

- **Note:** Since the Batch QC (Matrix Spike, Matrix Spike Duplicate and Relative Percent Differences) for Aluminum, Arsenic and Thallium are not included in the Analytical Report, they are offered below for review and information. Sample results were X flagged.

SDG 20071603 - Batch QC Data (200.8)			
QC Type	Analyte	QC	
		% Recovery	RPD %
Matrix Spike	Aluminum	85	
Matrix Spike Duplicate	Aluminum	86	1.2%
Matrix Spike	Arsenic	88	
Matrix Spike Duplicate	Arsenic	85	3.5%
Matrix Spike	Thallium	102	
Matrix Spike Duplicate	Thallium	102	0.0%

- Aluminum and Thallium contamination detected in the Blank was evaluated and affected sample results were C flagged.

All other QC controls are within the established limits.

Total Alkalinity – The hold time requirement for this analysis was met. A Duplicate and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See page 102 for QC details. Analytical Note(s):

- Duplicates were analyzed on samples B1PDJ8 (SDG# 20071601) and B1PFJ0 of this SDG.

All QC controls are within the established limits.

Total Organic Carbon – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Method Spike were analyzed with this delivery group per the GRP Letter of Instruction. See page 103 for QC details. Analytical Note(s):

- Duplicates were analyzed on samples B1PHN9 (SDG# 20071621) and B1PJD4 of this SDG.

All QC controls are within the established limits.

Organic Comments

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per the GPP Letter of Instruction. See pages 112 through 115 for QC details.

All QC controls are within the established limits.

VOA – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample, were analyzed with this delivery group per the GRP Letter of Instruction. See pages 116 through 118 for QC details. Analytical Note(s):

- Sample results that were less than the lowest calibration standard, however greater than the method detection limit, were J flagged.
- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1PHP6 (SDG# 20071594).

All QC controls are within the established limits.

Radiochemistry Comments

Rad Chem – There are no hold times associated with WSCF's radiochemical methods. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 136 through 138 for QC details. Analytical Note(s):

- Technetium-99 – Duplicates and Matrix Spikes were analyzed on samples B1P5F3 (SDG# 20071574) and B1PJJ7 of this SDG. Matrix Spike (B1P5F3) slightly exceeded established laboratory limits. No flags issued.
- Tritium – Duplicate and Matrix Spike were analyzed on sample# B1PDR3 (SDG# 20071601).

All QC controls are within the established limits.

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

Scot L. Fitzgerald
WSCF Analytical Laboratory Manager

Pauline D. Mix
WSCF Client Services

Abbreviations

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

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

M4W41-SLF-07-769

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 131 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

GPAP
Richland, WA 99352

Attention: Steve Trent E6-35

Analytical: S. Fitzgerald 10/24/07

Client Services: P.D. Mix 10/25/2007

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

This information is intended for the use of the eddressee only. If the reader of this report is not the intended recipient or is not authorized by the recipient to receive the report, you are hereby notified that any dissemination, distribution or copying of this report is strictly prohibited. If you have received this report in error, please notify WSCF Laboratory immediately by telephone at (509) 373-7020 or (509) 531-8004. Information designation of this report is the responsibility of the customer.

Report#: WSCF20071603
Report Date: 18-oct-2007
Report WGPP/ver. 5.2
GPAP

w13qlog v4.2 18-oct-2007 08:45:51

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20071603

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
33245	2	33652	37736	BLANK		Anions by Ion Chromatography
33245	12	33652	37736	BLANK		Anions by Ion Chromatography
33245	3	33652	37736	LCS		Anions by Ion Chromatography
33245	8	33652	37736	SAMPLE	W07P001814	Anions by Ion Chromatography
33245	9	33652	37736	SAMPLE	W07P001815	Anions by Ion Chromatography
33245	10	33652	37736	SAMPLE	W07P001816	Anions by Ion Chromatography
33245	11	33652	37736	SAMPLE	W07P001817	Anions by Ion Chromatography
33245	5	33652	37736	DUP	W07P001840	Anions by Ion Chromatography
33245	6	33652	37736	MS	W07P001840	Anions by Ion Chromatography
33245	7	33652	37736	MSD	W07P001840	Anions by Ion Chromatography
33245	4	33652	37736	SAMPLE	W07P001840	Anions by Ion Chromatography
33245	7	33652	37736	SPK-RPD	W07P001840	Anions by Ion Chromatography
33249	2	33649	37741	BLANK		Anions by Ion Chromatography
33249	12	33649	37741	BLANK		Anions by Ion Chromatography
33249	3	33649	37741	LCS		Anions by Ion Chromatography
33249	8	33649	37741	SAMPLE	W07P001822	Anions by Ion Chromatography
33249	9	33649	37741	SAMPLE	W07P001823	Anions by Ion Chromatography
33249	5	33649	37741	DUP	W07P001824	Anions by Ion Chromatography
33249	6	33649	37741	MS	W07P001824	Anions by Ion Chromatography
33249	7	33649	37741	MSD	W07P001824	Anions by Ion Chromatography
33249	4	33649	37741	SAMPLE	W07P001824	Anions by Ion Chromatography
33249	7	33649	37741	SPK-RPD	W07P001824	Anions by Ion Chromatography
33249	10	33649	37741	SAMPLE	W07P001825	Anions by Ion Chromatography
33249	11	33649	37741	SAMPLE	W07P001826	Anions by Ion Chromatography
33248	2	33650	37742	BLANK		Anions by Ion Chromatography
33248	11	33650	37742	BLANK		Anions by Ion Chromatography
33248	3	33650	37742	LCS		Anions by Ion Chromatography
33248	8	33650	37742	SAMPLE	W07P001818	Anions by Ion Chromatography
33248	5	33650	37742	DUP	W07P001819	Anions by Ion Chromatography
33248	6	33650	37742	MS	W07P001819	Anions by Ion Chromatography
33248	7	33650	37742	MSD	W07P001819	Anions by Ion Chromatography
33248	4	33650	37742	SAMPLE	W07P001819	Anions by Ion Chromatography
33248	7	33650	37742	SPK-RPD	W07P001819	Anions by Ion Chromatography
33248	9	33650	37742	SAMPLE	W07P001820	Anions by Ion Chromatography
33248	10	33650	37742	SAMPLE	W07P001821	Anions by Ion Chromatography
33246	2	33651	37747	BLANK		Anions by Ion Chromatography
33246	10	33651	37747	BLANK		Anions by Ion Chromatography
33246	3	33651	37747	LCS		Anions by Ion Chromatography
33246	5	33651	37747	DUP	W07P001796	Anions by Ion Chromatography
33246	6	33651	37747	MS	W07P001796	Anions by Ion Chromatography
33246	7	33651	37747	MSD	W07P001796	Anions by Ion Chromatography
33246	4	33651	37747	SAMPLE	W07P001796	Anions by Ion Chromatography
33246	7	33651	37747	SPK-RPD	W07P001796	Anions by Ion Chromatography
33246	8	33651	37747	SAMPLE	W07P001812	Anions by Ion Chromatography
33246	9	33651	37747	SAMPLE	W07P001813	Anions by Ion Chromatography
33232	2	33636	37760	BLANK		Hexavalent chromium
33232	8	33636	37760	BLANK		Hexavalent chromium
33232	3	33636	37760	LCS		Hexavalent chromium

33232	5	33636	37760	DUP	W07P001839	Hexavalent chromium
33232	6	33636	37760	MS	W07P001839	Hexavalent chromium
33232	7	33636	37760	MSD	W07P001839	Hexavalent chromium
33232	4	33636	37760	SAMPLE	W07P001839	Hexavalent chromium
33232	7	33636	37760	SPK-RPD	W07P001839	Hexavalent chromium
33340	1	33740	37825	LCS		Total Alkalinity as mg/L CaCO3
33340	13	33740	37825	LCS		Total Alkalinity as mg/L CaCO3
33340	24	33740	37825	LCS		Total Alkalinity as mg/L CaCO3
33340	3	33740	37825	DUP	W07P001774	Total Alkalinity as mg/L CaCO3
33340	9	33740	37825	SAMPLE	W07P001796	Total Alkalinity as mg/L CaCO3
33340	10	33740	37825	SAMPLE	W07P001812	Total Alkalinity as mg/L CaCO3
33340	11	33740	37825	SAMPLE	W07P001813	Total Alkalinity as mg/L CaCO3
33340	12	33740	37825	SAMPLE	W07P001814	Total Alkalinity as mg/L CaCO3
33340	14	33740	37825	SAMPLE	W07P001815	Total Alkalinity as mg/L CaCO3
33340	15	33740	37825	SAMPLE	W07P001816	Total Alkalinity as mg/L CaCO3
33340	16	33740	37825	SAMPLE	W07P001817	Total Alkalinity as mg/L CaCO3
33340	17	33740	37825	SAMPLE	W07P001818	Total Alkalinity as mg/L CaCO3
33340	18	33740	37825	SAMPLE	W07P001819	Total Alkalinity as mg/L CaCO3
33340	19	33740	37825	SAMPLE	W07P001820	Total Alkalinity as mg/L CaCO3
33340	20	33740	37825	SAMPLE	W07P001821	Total Alkalinity as mg/L CaCO3
33340	21	33740	37825	SAMPLE	W07P001822	Total Alkalinity as mg/L CaCO3
33340	22	33740	37825	SAMPLE	W07P001823	Total Alkalinity as mg/L CaCO3
33340	23	33740	37825	SAMPLE	W07P001824	Total Alkalinity as mg/L CaCO3
33361	1	33761	37858	BLANK		ICP-200.8 MS All possible meta
33361	8	33762	37858	BLANK		ICP-200.8 MS All possible meta
33361	2	33761	37858	LCS		ICP-200.8 MS All possible meta
33361	9	33762	37858	LCS		ICP-200.8 MS All possible meta
33361	11	33762	37858	MS	W07P001724	ICP-200.8 MS All possible meta
33361	12	33762	37858	MSD	W07P001724	ICP-200.8 MS All possible meta
33361	12	33762	37858	SPK-RPD	W07P001724	ICP-200.8 MS All possible meta
33361	4	33761	37858	MS	W07P001796	ICP-200.8 MS All possible meta
33361	5	33761	37858	MSD	W07P001796	ICP-200.8 MS All possible meta
33361	3	33761	37858	SAMPLE	W07P001796	ICP-200.8 MS All possible meta
33361	5	33761	37858	SPK-RPD	W07P001796	ICP-200.8 MS All possible meta
33361	16	33762	37858	SAMPLE	W07P001812	ICP-200.8 MS All possible meta
33361	17	33762	37858	SAMPLE	W07P001816	ICP-200.8 MS All possible meta
33361	18	33762	37858	SAMPLE	W07P001817	ICP-200.8 MS All possible meta
33361	19	33762	37858	SAMPLE	W07P001818	ICP-200.8 MS All possible meta
33361	20	33762	37858	SAMPLE	W07P001822	ICP-200.8 MS All possible meta
33361	21	33762	37858	SAMPLE	W07P001826	ICP-200.8 MS All possible meta
33361	6	33761	37858	SAMPLE	W07P001839	ICP-200.8 MS All possible meta
33361	7	33761	37858	SAMPLE	W07P001840	ICP-200.8 MS All possible meta
33384	1	33781	37874	LCS		Total Alkalinity as mg/L CaCO3
33384	13	33781	37874	LCS		Total Alkalinity as mg/L CaCO3
33384	25	33781	37874	LCS		Total Alkalinity as mg/L CaCO3
33384	17	33781	37874	DUP	W07GR02373	Total Alkalinity as mg/L CaCO3
33384	3	33781	37874	DUP	W07P001825	Total Alkalinity as mg/L CaCO3
33384	2	33781	37874	SAMPLE	W07P001825	Total Alkalinity as mg/L CaCO3
33384	4	33781	37874	SAMPLE	W07P001826	Total Alkalinity as mg/L CaCO3
33408	1	33809	37898	BLANK		Total Organic Carbon

33408	2	33809	37898	METHSPIKE		Total Organic Carbon
33408	3	33809	37898	SPK-RSD		Total Organic Carbon
33408	8	33809	37898	SAMPLE	W07P001827	Total Organic Carbon
33408	9	33809	37898	SAMPLE	W07P001828	Total Organic Carbon
33408	10	33809	37898	SAMPLE	W07P001829	Total Organic Carbon
33408	11	33809	37898	SAMPLE	W07P001830	Total Organic Carbon
33408	12	33809	37898	SAMPLE	W07P001831	Total Organic Carbon
33408	13	33809	37898	SAMPLE	W07P001832	Total Organic Carbon
33408	14	33809	37898	SAMPLE	W07P001833	Total Organic Carbon
33408	15	33809	37898	SAMPLE	W07P001834	Total Organic Carbon
33408	16	33809	37898	SAMPLE	W07P001835	Total Organic Carbon
33408	4	33809	37898	MS	W07P001836	Total Organic Carbon
33408	5	33809	37898	MSD	W07P001836	Total Organic Carbon
33408	7	33809	37898	SAMPLE	W07P001836	Total Organic Carbon
33408	5	33809	37898	SPK-RPD	W07P001836	Total Organic Carbon
33408	17	33809	37898	SAMPLE	W07P001837	Total Organic Carbon
33408	18	33809	37898	SAMPLE	W07P001838	Total Organic Carbon
33408	23	33809	37898	MS	W07P001899	Total Organic Carbon
33408	24	33809	37898	MSD	W07P001899	Total Organic Carbon
33408	24	33809	37898	SPK-RPD	W07P001899	Total Organic Carbon
33411	1	33812	37938	BLANK		Cyanide by Midi/Spectrophotom
33411	2	33812	37938	LCS		Cyanide by Midi/Spectrophotom
33411	4	33812	37938	MS	W07GR02361	Cyanide by Midi/Spectrophotom
33411	5	33812	37938	MSD	W07GR02361	Cyanide by Midi/Spectrophotom
33411	5	33812	37938	SPK-RPD	W07GR02361	Cyanide by Midi/Spectrophotom
33411	7	33812	37938	MS	W07P001796	Cyanide by Midi/Spectrophotom
33411	8	33812	37938	MSD	W07P001796	Cyanide by Midi/Spectrophotom
33411	6	33812	37938	SAMPLE	W07P001796	Cyanide by Midi/Spectrophotom
33411	8	33812	37938	SPK-RPD	W07P001796	Cyanide by Midi/Spectrophotom
33411	9	33812	37938	SAMPLE	W07P001812	Cyanide by Midi/Spectrophotom
33411	10	33812	37938	SAMPLE	W07P001816	Cyanide by Midi/Spectrophotom
33411	11	33812	37938	SAMPLE	W07P001817	Cyanide by Midi/Spectrophotom
33411	12	33812	37938	SAMPLE	W07P001818	Cyanide by Midi/Spectrophotom
33411	13	33812	37938	SAMPLE	W07P001822	Cyanide by Midi/Spectrophotom
33411	14	33812	37938	SAMPLE	W07P001826	Cyanide by Midi/Spectrophotom
33411	15	33812	37938	SAMPLE	W07P001840	Cyanide by Midi/Spectrophotom
33604	1	34002	38276	BLANK		ICP Metals Analysis, Grd H20 P
33604	2	34002	38276	LCS		ICP Metals Analysis, Grd H20 P
33604	4	34002	38276	MS	W07P001795	ICP Metals Analysis, Grd H20 P
33604	5	34002	38276	MSD	W07P001795	ICP Metals Analysis, Grd H20 P
33604	3	34002	38276	SAMPLE	W07P001795	ICP Metals Analysis, Grd H20 P
33604	5	34002	38276	SPK-RPD	W07P001795	ICP Metals Analysis, Grd H20 P
33604	6	34002	38276	SAMPLE	W07P001796	ICP Metals Analysis, Grd H20 P
33604	7	34002	38276	SAMPLE	W07P001797	ICP Metals Analysis, Grd H20 P
33604	8	34002	38276	SAMPLE	W07P001798	ICP Metals Analysis, Grd H20 P
33604	9	34002	38276	SAMPLE	W07P001799	ICP Metals Analysis, Grd H20 P
33604	10	34002	38276	SAMPLE	W07P001800	ICP Metals Analysis, Grd H20 P
33604	11	34002	38276	SAMPLE	W07P001801	ICP Metals Analysis, Grd H20 P
33604	12	34002	38276	SAMPLE	W07P001802	ICP Metals Analysis, Grd H20 P
33604	13	34002	38276	SAMPLE	W07P001803	ICP Metals Analysis, Grd H20 P
33604	14	34002	38276	SAMPLE	W07P001804	ICP Metals Analysis, Grd H20 P
33604	15	34002	38276	SAMPLE	W07P001805	ICP Metals Analysis, Grd H20 P
33604	16	34002	38276	SAMPLE	W07P001806	ICP Metals Analysis, Grd H20 P
33604	17	34002	38276	SAMPLE	W07P001807	ICP Metals Analysis, Grd H20 P
33604	18	34002	38276	SAMPLE	W07P001808	ICP Metals Analysis, Grd H20 P
33604	19	34002	38276	SAMPLE	W07P001809	ICP Metals Analysis, Grd H20 P
33604	20	34002	38276	SAMPLE	W07P001810	ICP Metals Analysis, Grd H20 P
33604	21	34002	38276	SAMPLE	W07P001811	ICP Metals Analysis, Grd H20 P

33604	22	34002	38276	SAMPLE	W07P001812	ICP Metals Analysis, Grd H20 P
33604	23	34002	38276	SAMPLE	W07P001813	ICP Metals Analysis, Grd H20 P
33604	24	34002	38276	SAMPLE	W07P001814	ICP Metals Analysis, Grd H20 P
33605	1	34003	38280	BLANK		ICP Metals Analysis, Grd H20 P
33605	2	34003	38280	LCS		ICP Metals Analysis, Grd H20 P
33605	6	34003	38280	SAMPLE	W07P001815	ICP Metals Analysis, Grd H20 P
33605	4	34003	38280	MS	W07P001816	ICP Metals Analysis, Grd H20 P
33605	5	34003	38280	MSD	W07P001816	ICP Metals Analysis, Grd H20 P
33605	3	34003	38280	SAMPLE	W07P001816	ICP Metals Analysis, Grd H20 P
33605	5	34003	38280	SPK-RPD	W07P001816	ICP Metals Analysis, Grd H20 P
33605	7	34003	38280	SAMPLE	W07P001817	ICP Metals Analysis, Grd H20 P
33605	8	34003	38280	SAMPLE	W07P001818	ICP Metals Analysis, Grd H20 P
33605	9	34003	38280	SAMPLE	W07P001819	ICP Metals Analysis, Grd H20 P
33605	10	34003	38280	SAMPLE	W07P001820	ICP Metals Analysis, Grd H20 P
33605	11	34003	38280	SAMPLE	W07P001821	ICP Metals Analysis, Grd H20 P
33605	12	34003	38280	SAMPLE	W07P001822	ICP Metals Analysis, Grd H20 P
33605	13	34003	38280	SAMPLE	W07P001823	ICP Metals Analysis, Grd H20 P
33605	14	34003	38280	SAMPLE	W07P001824	ICP Metals Analysis, Grd H20 P
33605	15	34003	38280	SAMPLE	W07P001825	ICP Metals Analysis, Grd H20 P
33605	16	34003	38280	SAMPLE	W07P001826	ICP Metals Analysis, Grd H20 P
33605	17	34003	38280	SAMPLE	W07P001839	ICP Metals Analysis, Grd H20 P
33605	18	34003	38280	SAMPLE	W07P001840	ICP Metals Analysis, Grd H20 P

w13qlog v4.2 18-oct-2007 08:45:51

Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20071603

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			37860	BLANK		SW-846 8270C Semi-Vols
			37860	LCS		SW-846 8270C Semi-Vols
			37860	MS	W07P001840	SW-846 8270C Semi-Vols
			37860	MSD	W07P001840	SW-846 8270C Semi-Vols
			37860	SAMPLE	W07P001840	SW-846 8270C Semi-Vols
			37860	SPK-RPD	W07P001840	SW-846 8270C Semi-Vols
			37860	SURR	W07P001840	SW-846 8270C Semi-Vols
			38259	BLANK		VOA Ground Water Protection
			38259	LCS		VOA Ground Water Protection
			38259	MS	W07P001726	VOA Ground Water Protection
			38259	MSD	W07P001726	VOA Ground Water Protection
			38259	SPK-RPD	W07P001726	VOA Ground Water Protection
			38259	SAMPLE	W07P001794	VOA Ground Water Protection
			38259	SURR	W07P001794	VOA Ground Water Protection
			38259	SAMPLE	W07P001840	VOA Ground Water Protection
			38259	SURR	W07P001840	VOA Ground Water Protection

w13qlog v4.2 18-oct-2007 08:45:51

Department: Radiochemistry

W13q Worklist/Batch/QC Report for Group# WSCF20071603

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
33318	1	33719	38061	BLANK		TC99 by Liquid Scin.
33318	2	33719	38061	LCS		TC99 by Liquid Scin.
33318	4	33719	38061	DUP	W07P001663	TC99 by Liquid Scin.
33318	3	33719	38061	MS	W07P001663	TC99 by Liquid Scin.
33318	12	33719	38061	SAMPLE	W07P001796	TC99 by Liquid Scin.
33318	13	33719	38061	SAMPLE	W07P001812	TC99 by Liquid Scin.
33318	14	33719	38061	SAMPLE	W07P001813	TC99 by Liquid Scin.
33318	15	33719	38061	SAMPLE	W07P001814	TC99 by Liquid Scin.
33318	16	33719	38061	SAMPLE	W07P001815	TC99 by Liquid Scin.
33321	1	33730	38123	BLANK		TC99 by Liquid Scin.
33321	2	33730	38123	LCS		TC99 by Liquid Scin.
33321	4	33730	38123	DUP	W07P001816	TC99 by Liquid Scin.
33321	3	33730	38123	MS	W07P001816	TC99 by Liquid Scin.
33321	5	33730	38123	SAMPLE	W07P001816	TC99 by Liquid Scin.
33321	6	33730	38123	SAMPLE	W07P001817	TC99 by Liquid Scin.
33321	7	33730	38123	SAMPLE	W07P001818	TC99 by Liquid Scin.
33321	8	33730	38123	SAMPLE	W07P001819	TC99 by Liquid Scin.
33321	9	33730	38123	SAMPLE	W07P001820	TC99 by Liquid Scin.
33321	10	33730	38123	SAMPLE	W07P001821	TC99 by Liquid Scin.
33321	11	33730	38123	SAMPLE	W07P001822	TC99 by Liquid Scin.
33321	12	33730	38123	SAMPLE	W07P001823	TC99 by Liquid Scin.
33321	13	33730	38123	SAMPLE	W07P001824	TC99 by Liquid Scin.
33321	14	33730	38123	SAMPLE	W07P001825	TC99 by Liquid Scin.
33321	15	33730	38123	SAMPLE	W07P001826	TC99 by Liquid Scin.
33321	16	33730	38123	SAMPLE	W07P001840	TC99 by Liquid Scin.
33599	1	33997	38196	BLANK		Plutonium Isotopics by AEA
33599	2	33997	38196	LCS		Plutonium Isotopics by AEA
33599	3	33997	38196	DUP	W07P001840	Plutonium Isotopics by AEA
33599	4	33997	38196	SAMPLE	W07P001840	Plutonium Isotopics by AEA
33324	1	33732	38202	BLANK		Tritium by Liq Sct column prep
33324	2	33732	38202	LCS		Tritium by Liq Sct column prep
33324	4	33732	38202	DUP	W07P001780	Tritium by Liq Sct column prep
33324	3	33732	38202	MS	W07P001780	Tritium by Liq Sct column prep
33324	9	33732	38202	SAMPLE	W07P001840	Tritium by Liq Sct column prep

WSCF
METHOD REFERENCES REPORT

Department: Inorganic

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

LA-265-403	LA-265-403: Hexavalent Chromium analysis by Spectrophotometer	
	EPA SW-846 7196A	HEXAVALENT CHROMIUM
	HEIS 7196_CR6	Hexavalent Chromium
LA-344-406	LA-344-406: TOTAL ORGANIC CARBON (TOC) BASED ON SW-846	
	EPA SW-846 9060	TOTAL ORGANIC CARBON
	HEIS 9060_TOC	Total Organic Carbon
LA-505-411	LA-505-411: ELEMENTAL ANALYSIS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPE	
	HEIS 6010_METALS_ICP	Inductively Coupled Plasma-Atomic Emmision 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
	HEIS 200.8_METALS_ICPMS	Inductively Coupled Plasma - Mass Spectrometry
LA-531-411	LA-531-411: ALKALINITY (TITRIMETRIC)	
	HEIS 2320B	Alkalinity
	Standard Methods 2320B	Alkalinity
LA-533-410	LA-533-410: ANION ANALYSIS BY ION CHROMATOGRAPHY	
	EPA-600/R-94-111 300.0	DETERMINATION OF INORGANIC ANIONS BY ION CHROMATOGRAPHY
	HEIS 300.0_ANIONS_IC	Determination of Inorganic Anions by Ion Chromatography
LA-695-402	LA-695-402: DETERMINATION OF CYANIDE BY MIDIDISTILLATION AND SPECTROPHOTOMETRIC	
	EPA-600/4-79-020 335.2	Cyanide, Total

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

WSCF
METHOD REFERENCES REPORT

Department: Inorganic

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

HEIS 335.2_CYANIDE Cyanide, Total

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

WSCF
METHOD REFERENCES REPORT

Department: Organic

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

LA-523-455	LA-523-455: VOLATILE SAMPLE ANALYSIS BY SW-846	
	EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
	EPA SW-846 8260B	VOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
	HEIS 8260_VOA_GCMS	Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)
LA-523-456	LA-523-456: SEMIVOLATILE SAMPLE ANALYSIS BY SW-846, METHOD 8270C	
	EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
	EPA SW-846 8270C	SEMIVOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
	HEIS 8270_SVOA_GCMS	Semivolatile Orgamoc Compounds By Gas Chromatography/Mass Spectrometry (GC/MS)

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

WSCF
METHOD REFERENCES REPORT

Department: Radiochemistry

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

LA-508-421	LA-508-421: OPERATION OF THE TRI-CARB MODEL 2500TR LIQUID SCINTILLATION ANALYZER	
	HEIS ALPHA_LSC	A/B Liquid Scintilillation
	HEIS BETA_LSC	A/B Liquid Scintilallation
	HEIS TC99_3MDSK_LSC	TC99 by Liquid Scintillation
	HEIS TRITIUM_EIE_LSC	Tritium Liquid Scintillation
LA-508-471	LA-508-471: ALPHA ENERGY ANALYZER DATA ACQUISITION AND SYSTEM CHECKOUT USING ALP	
	HEIS PUISO_IE_PRECIP_AEA	Plutonium by Alpha Energy Analysis
	HEIS RAISO_AEA	Radium-226

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001795
Client ID: B1PJJ2 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	C	32.8	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		1.52e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	C	4.90	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	21.7	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		7.38e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	13.1	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.39e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	46.0	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	11.2	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	8.20	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	8.60	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	46.8	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	15.7	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		4.76e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		250	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001796
Client ID: B1PJJ3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410	BD	0.169	mg/L			2.00	0.012		09/10/07
Chloride	16887-00-6	LA-533-410	D	16.5	mg/L			2.00	0.060		09/10/07
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0200	mg/L			2.00	0.020		09/10/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	4.09	mg/L			10.00	0.050		09/10/07
Sulfate	14808-79-8	LA-533-410	D	80.2	mg/L			10.00	0.70		09/10/07
Cyanide											
Cyanide	57-12-5	LA-695-402	U	< 4.00	ug/L			1.00	4.0		09/18/07
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	C	73.0	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		1.55e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	C	6.10	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	31.0	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		7.51e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	12.9	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.41e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	46.9	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	24.6	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	7.70	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	9.90	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	35.0	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	17.4	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001796
Client ID: B1PJJ3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Calcium	7440-70-2	LA-505-411		4.76e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		253	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
ICP-200.8 MS All possible meta Prep											**09/17/07**
ICP-200.8 MS All possible meta											
Uranium	7440-61-1	LA-505-412		3.27	ug/L			1.00	0.0500		09/18/07
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		98.0	mg/L			1.00	1.0		09/14/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001797
Client ID: B1PJK4 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	C	12.7	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		1.46e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	12.0	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		7.10e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	13.1	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.25e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	38.6	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	7.80	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	9.80	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	5.10	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	36.0	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	15.8	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		5.31e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		235	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001798
Client ID: B1PJL6 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	C	26.2	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		1.31e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	19.6	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		4.60e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	12.7	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		3.17e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	62.9	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411		345	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	9.00	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	9.40	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	41.4	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	17.7	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		4.34e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		164	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001799
Client ID: B1PJB3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	C	23.3	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		1.63e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	17.7	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		7.24e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	8.30	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.56e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	44.2	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	9.50	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	8.50	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	6.00	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	44.6	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	15.1	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		5.75e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		283	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001800
Client ID: B1PJC6 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	C	39.7	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		1.99e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	C	9.50	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	36.5	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		7.60e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	10.5	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.89e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	58.6	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	9.70	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	5.70	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	53.3	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	16.7	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		7.10e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		326	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

Report WGPP/ver. 5.2
GPAP

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001801
Client ID: B1PJJ6 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	C	14.4	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		1.35e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	12.4	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		6.74e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	11.8	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.28e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	34.9	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	10.6	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	8.30	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	8.80	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	42.6	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	16.3	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		4.86e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		216	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001802
Client ID: B1PJK0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	C	141	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		2.12e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	8.10	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		8.50e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	9.90	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.44e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	53.8	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	7.20	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	10.1	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	7.30	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	43.4	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	16.8	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		7.52e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		370	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001803
Client ID: B1PJL2 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	C	28.8	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		2.54e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	12.8	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		9.23e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	11.4	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.56e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	57.4	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	12.7	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	8.90	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	7.50	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	35.6	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	17.2	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		9.05e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		445	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

Report WGPP/ver. 5.2
GPAP

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001804
Client ID: B1PJP4 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	U	< 9.00	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		8.23e+03	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	14.3	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		4.03e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	6.60	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		2.27e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	42.6	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	15.8	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	7.50	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	4.90	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	41.2	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	16.9	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		2.62e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		101	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001805
Client ID: B1PJP9 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	C	19.0	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		9.19e+03	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	C	4.90	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	14.0	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		3.52e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	12.1	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		2.40e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	38.4	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	8.30	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	7.10	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	50.6	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	23.1	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		2.80e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		99.8	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001806
Client ID: B1PJP1 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	C	31.7	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		8.75e+03	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	C	5.80	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	14.6	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		3.91e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	10.3	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		2.64e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	39.0	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	17.8	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	8.20	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	6.00	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	38.7	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	16.4	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		2.88e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		109	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001807
Client ID: B1PJH1 PNNL-GPP WSCF
Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	C	33.4	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		1.39e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	C	7.20	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	15.0	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		7.22e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	12.1	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.19e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411		38.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	38.8	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	16.5	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	11.3	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	5.40	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	37.6	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	16.9	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		4.93e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		229	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001808
Client ID: B1PJR2 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	C	24.8	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		8.91e+03	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	13.4	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		3.80e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	11.8	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		2.67e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	37.4	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	4.00	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	9.60	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	8.00	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	42.3	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	16.3	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		2.79e+04	ug/L			1.00	34		10/10/07
Lithium	7439-93-2	LA-505-411		NA	ug/L			1.00	0.0		10/10/07
Strontium	7440-24-6	LA-505-411		104	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001809
Client ID: B1PJN8 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	C	28.2	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		7.18e+03	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	C	6.10	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	11.8	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		3.03e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	9.90	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.72e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	25.6	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	8.40	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	7.50	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	49.7	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	15.2	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		2.07e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		73.8	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001810
Client ID: B1PJD9 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	C	9.50	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		1.61e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	C	4.00	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	12.0	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		7.44e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	8.90	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.65e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	52.7	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	8.70	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	8.30	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	7.20	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	43.0	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	14.5	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		5.63e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		270	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001811
Client ID: B1PJK8 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	C	16.7	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		1.64e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	14.5	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		7.54e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	11.6	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.25e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	48.8	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	12.9	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	8.80	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	7.80	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	38.5	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	18.1	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		5.84e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		267	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001812
Client ID: B1PJK5 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410	BD	0.174	mg/L			2.00	0.012		09/11/07
Chloride	16887-00-6	LA-533-410	D	12.9	mg/L			2.00	0.060		09/11/07
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0200	mg/L			2.00	0.020		09/11/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	6.26	mg/L			2.00	0.010		09/11/07
Sulfate	14808-79-8	LA-533-410	D	90.6	mg/L			10.00	0.70		09/11/07
Cyanide											
Cyanide	57-12-5	LA-695-402		5.80	ug/L			1.00	4.0		09/18/07
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	C	29.7	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		1.44e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	12.8	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		7.20e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	8.50	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.25e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	38.0	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	6.00	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	7.50	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	42.6	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	17.2	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001812
Client ID: B1PJK5 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Calcium	7440-70-2	LA-505-411		5.14e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		232	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
ICP-200.8 MS All possible meta Prep											**09/17/07**
ICP-200.8 MS All possible meta											
Uranium	7440-61-1	LA-505-412		2.04	ug/L			1.00	0.0500		09/18/07
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		94.0	mg/L			1.00	1.0		09/14/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001813
Client ID: B1PJL7 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410		0.280	mg/L			1.00	6.0e-03		09/11/07
Chloride	16887-00-6	LA-533-410		11.8	mg/L			1.00	0.030		09/11/07
Nitrogen in Nitrite	NO2-N	LA-533-410	U	< 0.0100	mg/L			1.00	0.010		09/11/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	33.0	mg/L			10.00	0.050		09/11/07
Sulfate	14808-79-8	LA-533-410		24.2	mg/L			1.00	0.070		09/11/07
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	C	118	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		1.29e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	C	12.8	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	22.6	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		4.49e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	9.30	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		3.11e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	63.0	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411		352	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	7.60	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	5.60	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	37.8	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	25.2	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		4.24e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		161	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001813
Client ID: B1PJL7 PNNL-GPP WSCF
Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		83.0	mg/L			1.00	1.0		09/14/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001814
Client ID: B1PJB4 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410	BD	0.159	mg/L			2.00	0.012		09/10/07
Chloride	16887-00-6	LA-533-410	D	16.5	mg/L			2.00	0.060		09/10/07
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0200	mg/L			2.00	0.020		09/10/07
Nitrogen in Nitrate	NO3-N	LA-533-410	DN	6.53	mg/L			10.00	0.050		09/10/07
Sulfate	14808-79-8	LA-533-410	D	109	mg/L			10.00	0.70		09/10/07
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	C	155	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		1.61e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	C	7.50	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	20.7	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		7.17e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	9.40	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.53e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	43.8	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	19.8	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	6.00	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	6.10	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	45.0	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	21.1	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		5.66e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		281	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001814
Client ID: B1PJB4 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		95.0	mg/L			1.00	1.0		09/14/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001815
Client ID: B1PJC7 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410	BD	0.156	mg/L			2.00	0.012		09/10/07
Chloride	16887-00-6	LA-533-410	D	25.0	mg/L			2.00	0.060		09/10/07
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0200	mg/L			2.00	0.020		09/10/07
Nitrogen in Nitrate	NO3-N	LA-533-410	DN	11.7	mg/L			10.00	0.050		09/10/07
Sulfate	14808-79-8	LA-533-410	D	141	mg/L			10.00	0.70		09/10/07
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		63.0	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		1.96e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	C	7.20	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	31.5	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		7.49e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	13.5	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.86e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	58.6	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	7.80	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	10.1	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	7.90	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	40.8	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	18.4	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		6.97e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		323	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001815
Client ID: B1PJC7 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		93.0	mg/L			1.00	1.0		09/14/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001816
Client ID: B1PJJ7 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410	BD	0.178	mg/L			2.00	0.012		09/10/07
Chloride	16887-00-6	LA-533-410	D	11.9	mg/L			2.00	0.060		09/10/07
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0200	mg/L			2.00	0.020		09/10/07
Nitrogen in Nitrate	NO3-N	LA-533-410	DN	5.90	mg/L			10.00	0.050		09/10/07
Sulfate	14808-79-8	LA-533-410	D	84.7	mg/L			10.00	0.70		09/10/07
Cyanide											
Cyanide	57-12-5	LA-695-402		4.70	ug/L			1.00	4.0		09/18/07
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		17.9	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		1.38e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	11.0	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		6.93e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	12.7	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.30e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	35.7	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	9.30	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	6.10	ug/L			1.00	4.0		10/10/07
Vanadium	7440-82-2	LA-505-411	C	38.8	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	16.2	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001816
Client ID: B1PJJ7 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Calcium	7440-70-2	LA-505-411		4.88e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		221	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
ICP-200.8 MS All possible meta Prep											**09/17/07**
ICP-200.8 MS All possible meta											
Uranium	7440-61-1	LA-505-412		1.94	ug/L			1.00	0.0500		09/18/07
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		94.0	mg/L			1.00	1.0		09/14/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

Report WGPP/ver. 5.2
GPAP

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001817
Client ID: B1PJK1 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410	BD	0.117	mg/L			3.00	0.018		09/10/07
Chloride	16887-00-6	LA-533-410	D	34.4	mg/L			3.00	0.090		09/10/07
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0300	mg/L			3.00	0.030		09/10/07
Nitrogen in Nitrate	NO3-N	LA-533-410	DN	7.12	mg/L			3.00	0.015		09/10/07
Sulfate	14808-79-8	LA-533-410	D	153	mg/L			10.00	0.70		09/10/07
Cyanide											
Cyanide	57-12-5	LA-695-402	U	< 4.00	ug/L			1.00	4.0		09/18/07
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		10.4	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		2.18e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	12.3	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		8.57e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	11.1	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.45e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	54.2	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	9.40	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	6.70	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	43.6	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	17.0	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001817
Client ID: B1PJK1 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Calcium	7440-70-2	LA-505-411		7.83e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		382	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
ICP-200.8 MS All possible meta Prep											**09/17/07**
ICP-200.8 MS All possible meta											
Uranium	7440-61-1	LA-505-412		3.04	ug/L			1.00	0.0500		09/18/07
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		94.0	mg/L			1.00	1.0		09/14/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001818
Client ID: B1PJL3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410	BD	0.107	mg/L			3.00	0.018		09/10/07
Chloride	16887-00-6	LA-533-410	D	35.3	mg/L			10.00	0.30		09/10/07
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0300	mg/L			3.00	0.030		09/10/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	7.17	mg/L			10.00	0.050		09/10/07
Sulfate	14808-79-8	LA-533-410	D	197	mg/L			10.00	0.70		09/10/07
Cyanide											
Cyanide	57-12-5	LA-695-402		26.3	ug/L			1.00	4.0		09/18/07
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		225	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		2.52e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	11.0	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		9.17e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	9.10	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.52e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	57.6	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	11.8	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	8.50	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	7.20	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	35.4	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	17.8	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001818
Client ID: B1PJL3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Calcium	7440-70-2	LA-505-411		9.01e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		444	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
ICP-200.8 MS All possible meta Prep											**09/17/07**
ICP-200.8 MS All possible meta											
Uranium	7440-61-1	LA-505-412		3.25	ug/L			1.00	0.0500		09/18/07
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		88.0	mg/L			1.00	1.0		09/14/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001819
Client ID: B1PJP5 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410		0.412	mg/L			1.00	6.0e-03		09/10/07
Chloride	16887-00-6	LA-533-410		8.52	mg/L			1.00	0.030		09/10/07
Nitrogen in Nitrite	NO2-N	LA-533-410	U	< 0.0100	mg/L			1.00	0.010		09/10/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	10.4	mg/L			10.00	0.050		09/10/07
Sulfate	14808-79-8	LA-533-410		18.9	mg/L			1.00	0.070		09/10/07
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		44.3	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		8.14e+03	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	13.1	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		3.93e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	10.0	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		2.18e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	42.9	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	10.1	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	8.20	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	5.40	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	42.7	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	15.8	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		2.65e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		101	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001819
Client ID: B1PJP5 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		92.0	mg/L			1.00	1.0		09/14/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001820
Client ID: B1PJR0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410		0.338	mg/L			1.00	6.0e-03		09/10/07
Chloride	16887-00-6	LA-533-410		11.4	mg/L			1.00	0.030		09/10/07
Nitrogen in Nitrite	NO2-N	LA-533-410	U	< 0.0100	mg/L			1.00	0.010		09/10/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	8.70	mg/L			10.00	0.050		09/10/07
Sulfate	14808-79-8	LA-533-410		28.5	mg/L			1.00	0.070		09/10/07
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		41.7	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		9.24e+03	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	C	4.10	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	12.2	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		3.45e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	8.80	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		2.33e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	39.3	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	13.7	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	8.40	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	4.90	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	45.3	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	27.0	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		2.88e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		101	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001820
Client ID: B1PJR0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		97.0	mg/L			1.00	1.0		09/14/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001821
Client ID: B1PJP2 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410		0.368	mg/L			1.00	6.0e-03		09/11/07
Chloride	16887-00-6	LA-533-410		12.2	mg/L			1.00	0.030		09/11/07
Nitrogen in Nitrite	NO2-N	LA-533-410	U	< 0.0100	mg/L			1.00	0.010		09/11/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	5.89	mg/L			10.00	0.050		09/11/07
Sulfate	14808-79-8	LA-533-410		33.0	mg/L			1.00	0.070		09/11/07
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		57.5	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		8.46e+03	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	14.4	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		3.76e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	7.20	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		2.48e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	38.9	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	27.9	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	6.50	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	9.70	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	48.9	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	19.2	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		2.80e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		106	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001821
Client ID: B1PJP2 PNNL-GPP WSCF
Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		98.0	mg/L			1.00	1.0		09/14/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001822
Client ID: B1PJH2 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410	BD	0.177	mg/L			2.00	0.012		09/10/07
Chloride	16887-00-6	LA-533-410	D	12.8	mg/L			2.00	0.060		09/10/07
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0200	mg/L			2.00	0.020		09/10/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	4.29	mg/L			2.00	0.010		09/10/07
Sulfate	14808-79-8	LA-533-410	D	84.5	mg/L			10.00	0.70		09/10/07
Cyanide											
Cyanide	57-12-5	LA-695-402		22.9	ug/L			1.00	4.0		09/18/07
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		162	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		1.37e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	20.0	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		7.09e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	12.1	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.14e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	38.9	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	19.1	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	8.80	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	9.00	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	46.8	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	35.8	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001822
Client ID: B1PJH2 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Calcium	7440-70-2	LA-505-411		4.92e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		227	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
ICP-200.8 MS All possible meta Prep											**09/17/07**
ICP-200.8 MS All possible meta											
Uranium	7440-61-1	LA-505-412		2.26	ug/L			1.00	0.0500		09/18/07
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		95.0	mg/L			1.00	1.0		09/14/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

Report WGPP/ver. 5.2
GPAP

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001823
Client ID: B1PJR3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410		0.369	mg/L			1.00	6.0e-03		09/10/07
Chloride	16887-00-6	LA-533-410		12.0	mg/L			1.00	0.030		09/10/07
Nitrogen in Nitrite	NO2-N	LA-533-410	U	< 0.0100	mg/L			1.00	0.010		09/10/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	12.7	mg/L			10.00	0.050		09/10/07
Sulfate	14808-79-8	LA-533-410		22.6	mg/L			1.00	0.070		09/10/07
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		30.2	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		8.87e+03	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	14.1	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		3.77e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	10.9	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		2.63e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	37.8	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	8.20	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	6.60	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	5.70	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	51.2	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	17.2	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		2.75e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		104	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001823
Client ID: B1PJR3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		94.0	mg/L			1.00	1.0		09/14/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001824
Client ID: B1PJN9 PNNL-GPP WSCF
Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410		0.431	mg/L			1.00	6.0e-03		09/10/07
Chloride	16887-00-6	LA-533-410		4.77	mg/L			1.00	0.030		09/10/07
Nitrogen in Nitrite	NO2-N	LA-533-410	U	< 0.0100	mg/L			1.00	0.010		09/10/07
Nitrogen in Nitrate	NO3-N	LA-533-410		1.50	mg/L			1.00	5.0e-03		09/10/07
Sulfate	14808-79-8	LA-533-410		14.6	mg/L			1.00	0.070		09/10/07
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		54.9	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		6.99e+03	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	C	7.10	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	14.0	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		2.90e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	10.9	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.63e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	26.1	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	6.60	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	6.70	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	5.60	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	55.6	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	16.6	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		2.09e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		73.9	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001824
Client ID: B1PJN9 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		98.0	mg/L			1.00	1.0		09/14/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001825
Client ID: B1PJF0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410	BD	0.177	mg/L			2.00	0.012		09/10/07
Chloride	16887-00-6	LA-533-410	D	17.4	mg/L			2.00	0.060		09/10/07
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0200	mg/L			2.00	0.020		09/10/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	6.94	mg/L			2.00	0.010		09/10/07
Sulfate	14808-79-8	LA-533-410	D	99.4	mg/L			10.00	0.70		09/10/07
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		28.8	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		1.58e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	10.9	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		7.31e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	14.6	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.59e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	53.0	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	12.3	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	9.30	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	4.90	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	44.0	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	16.1	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		5.54e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		266	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001825
Client ID: B1PJF0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		94.0	mg/L			1.00	1.0		09/17/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001826
Client ID: B1PJK9 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410	BD	0.155	mg/L			2.00	0.012		09/10/07
Chloride	16887-00-6	LA-533-410	D	17.0	mg/L			2.00	0.060		09/10/07
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0200	mg/L			2.00	0.020		09/10/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	5.56	mg/L			2.00	0.010		09/10/07
Sulfate	14808-79-8	LA-533-410	D	103	mg/L			10.00	0.70		09/10/07
Cyanide											
Cyanide	57-12-5	LA-695-402		4.70	ug/L			1.00	4.0		09/18/07
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		20.5	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		1.60e+04	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	14.2	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		7.35e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	7.50	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.20e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	47.8	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	12.7	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	8.70	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	7.70	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	47.6	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	15.4	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001826
Client ID: B1PJK9 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Calcium	7440-70-2	LA-505-411		5.78e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		264	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
ICP-200.8 MS All possible meta Prep											**09/17/07**
ICP-200.8 MS All possible meta											
Uranium	7440-61-1	LA-505-412		2.71	ug/L			1.00	0.0500		09/18/07
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		96.0	mg/L			1.00	1.0		09/17/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001827
Client ID: B1PJ97 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total organic carbon											
Total organic carbon	TOC	LA-344-406	U	< 0.300	mg/L			1.00	0.30		09/20/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001828
Client ID: B1PJ98 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.304	mg/L			1.00	0.30		09/20/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001829
Client ID: B1PJ99 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.384	mg/L			1.00	0.30		09/20/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001830
Client ID: B1PJB0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.307	mg/L			1.00	0.30		09/20/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001831
Client ID: B1PJC0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.404	mg/L			1.00	0.30		09/20/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001832
Client ID: B1PJC1 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.393	mg/L			1.00	0.30		09/20/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001833
Client ID: B1PJC2 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.402	mg/L			1.00	0.30		09/20/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001834
Client ID: B1PJC3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.396	mg/L			1.00	0.30		09/20/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001835
Client ID: B1PJD3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.372	mg/L			1.00	0.30		09/20/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001836
Client ID: B1PJD4 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.364	mg/L			1.00	0.30		09/20/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001837
Client ID: B1PJD5 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.356	mg/L			1.00	0.30		09/20/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001838
Client ID: B1PJD6 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.360	mg/L			1.00	0.30		09/20/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S07-009
Sample # W07P001839
Client ID: B1PFT2 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Hexavalent Chromium											
Hexavalent Chromium	18540-29-9	LA-265-403	U	< 2.00e-03	mg/L			1.00	2.0e-03		09/10/07
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		21.3	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		4.04e+03	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	C	13.3	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	12.8	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA 505-411		8.09e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	10.3	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.30e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	64.3	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	9.00	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	6.70	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	26.5	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	17.0	ug/L			1.00	4.0		10/10/07
Calcium	7440-70-2	LA-505-411		3.22e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		200	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
ICP-200.8 MS All possible meta Prep											**09/17/07**
ICP-200.8 MS All possible meta											
Aluminum	7429-90-5	LA-505-412	CX	27.1	ug/L			1.00	5.00		09/18/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S07-009
Sample # W07P001839
Client ID: B1PFT2 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Arsenic	7440-38-2	LA-505-412	X	3.60	ug/L			1.00	0.400		09/18/07
Thallium	7440-28-0	LA-505-412	UX	< 0.100	ug/L			1.00	0.100		09/18/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S07-009
Sample # W07P001840
Client ID: B1PFT3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410		0.207	mg/L			1.00	6.0e-03		09/10/07
Chloride	16887-00-6	LA-533-410		4.75	mg/L			1.00	0.030		09/10/07
Nitrogen in Nitrite	NO2-N	LA-533-410	B	0.0119	mg/L			1.00	0.010		09/10/07
Nitrogen in Nitrate	NO3-N	LA-533-410	N	0.259	mg/L			1.00	5.0e-03		09/10/07
Sulfate	14808-79-8	LA-533-410		30.8	mg/L			1.00	0.070		09/10/07
Cyanide											
Cyanide	57-12-5	LA-695-402	U	< 4.00	ug/L			1.00	4.0		09/18/07
ICP Metals Analysis, Grd H20 P Prep											**10/04/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		71.6	ug/L			1.00	9.0		10/10/07
Magnesium	7439-95-4	LA-505-411		3.84e+03	ug/L			1.00	6.0		10/10/07
Manganese	7439-96-5	LA-505-411	C	15.6	ug/L			1.00	4.0		10/10/07
Nickel	7440-02-0	LA-505-411	C	11.9	ug/L			1.00	4.0		10/10/07
Potassium	7440-09-7	LA-505-411		7.91e+03	ug/L			1.00	45		10/10/07
Silver	7440-22-4	LA-505-411	C	11.8	ug/L			1.00	5.0		10/10/07
Sodium	7440-23-5	LA-505-411		1.26e+04	ug/L			1.00	27		10/10/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/10/07
Barium	7440-39-3	LA-505-411	C	61.0	ug/L			1.00	4.0		10/10/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
Chromium	7440-47-3	LA-505-411	C	7.60	ug/L			1.00	4.0		10/10/07
Cobalt	7440-48-4	LA-505-411	C	7.30	ug/L			1.00	4.0		10/10/07
Copper	7440-50-8	LA-505-411	C	6.00	ug/L			1.00	4.0		10/10/07
Vanadium	7440-62-2	LA-505-411	C	27.5	ug/L			1.00	7.0		10/10/07
Zinc	7440-66-6	LA-505-411	C	27.9	ug/L			1.00	4.0		10/10/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S07-009
Sample # W07P001840
Client ID: B1PFT3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Inorganic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Calcium	7440-70-2	LA-505-411		3.07e+04	ug/L			1.00	34		10/10/07
Strontium	7440-24-6	LA-505-411		191	ug/L			1.00	4.0		10/10/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/10/07
ICP-200.8 MS All possible meta Prep											**09/17/07**
ICP-200.8 MS All possible meta											
Aluminum	7429-90-5	LA-505-412	CX	64.4	ug/L			1.00	5.00		09/18/07
Uranium	7440-61-1	LA-505-412	X	2.04	ug/L			1.00	0.0500		09/18/07
Arsenic	7440-38-2	LA-505-412	X	3.80	ug/L			1.00	0.400		09/18/07
Thallium	7440-28-0	LA-505-412	UX	< 0.100	ug/L			1.00	0.100		09/18/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071603
Matrix: WATER
Test: Anions by Ion Chromatography

Sample Date: 09/09/07
Receive Date:09/10/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07P001840											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Chloride	16887-00-6	4.7525		RPD			0.133	20.000		09/10/07
DUP	Fluoride	16984-48-8	0.209		RPD			0.768	20.000		09/10/07
DUP	Nitrogen in Nitrite	NO2-N	<1e-2		RPD			n/a	20.000	U	09/10/07
DUP	Nitrogen in Nitrate	NO3-N	0.2638		RPD			1.836	20.000		09/10/07
DUP	Sulfate	14808-79-8	30.8951		RPD			0.263	20.000		09/10/07
MS	Chloride	16887-00-6	1.0182	102.848	% Recov	75.000	125.000				09/10/07
MS	Fluoride	16984-48-8	0.5251	104.602	% Recov	75.000	125.000				09/10/07
MS	Nitrogen in Nitrite	NO2-N	0.4711	94.598	% Recov	75.000	125.000				09/10/07
MS	Nitrogen in Nitrate	NO3-N	0.4562	101.153	% Recov	75.000	125.000				09/10/07
MS	Sulfate	14808-79-8	1.5564	78.606	% Recov	75.000	125.000				09/10/07
MSD	Chloride	16887-00-6	1.0379	104.838	% Recov	75.000	125.000				09/10/07
MSD	Fluoride	16984-48-8	0.5058	100.757	% Recov	75.000	125.000				09/10/07
MSD	Nitrogen in Nitrite	NO2-N	0.4786	96.104	% Recov	75.000	125.000				09/10/07
MSD	Nitrogen in Nitrate	NO3-N	0.5778	128.115	% Recov	75.000	125.000				09/10/07
MSD	Sulfate	14808-79-8	1.7867	90.237	% Recov	75.000	125.000				09/10/07
SPK-RPD	Chloride	16887-00-6	104.838		RPD			1.916	20.000		09/10/07
SPK-RPD	Fluoride	16984-48-8	100.757		RPD			3.745	20.000		09/10/07
SPK-RPD	Nitrogen in Nitrite	NO2-N	96.104		RPD			1.579	20.000		09/10/07
SPK-RPD	Nitrogen in Nitrate	NO3-N	128.115		RPD			23.520	20.000		09/10/07
SPK-RPD	Sulfate	14808-79-8	90.237		RPD			13.777	20.000		09/10/07
BATCH QC											
BLANK	Chloride	16887-00-6	<3e-2	n/a	mg/L	0.000	0.030			U	09/10/07
BLANK	Chloride	16887-00-6	<3e-2	n/a	mg/L	0.000	0.030			U	09/10/07
BLANK	Fluoride	16984-48-8	<6e-3	n/a	mg/L	0.000	0.030			U	09/10/07
BLANK	Fluoride	16984-48-8	<6e-3	n/a	mg/L	0.000	0.030			U	09/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071603
Matrix: WATER
Test: Anions by Ion Chromatography

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Nitrogen in Nitrite	NO2-N	<1e-2	n/a	mg/L	0.000	0.020			U	09/10/07
BLANK	Nitrogen in Nitrite	NO2-N	<1e-2	n/a	mg/L	0.000	0.020			U	09/10/07
BLANK	Nitrogen in Nitrate	NO3-N	<5e-3	n/a	mg/L	0.000	0.040			U	09/10/07
BLANK	Nitrogen in Nitrate	NO3-N	<5e-3	n/a	mg/L	0.000	0.040			U	09/10/07
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	09/10/07
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	09/10/07
LCS	Chloride	16887-00-6	201.0791	100.540	% Recov	80.000	120.000				09/10/07
LCS	Fluoride	16984-48-8	108.057	108.987	% Recov	80.000	120.000				09/10/07
LCS	Nitrogen in Nitrite	NO2-N	102.5298	102.530	% Recov	80.000	120.000				09/10/07
LCS	Nitrogen in Nitrate	NO3-N	92.7035	101.649	% Recov	80.000	120.000				09/10/07
LCS	Sulfate	14808-79-8	394.389	98.597	% Recov	80.000	120.000				09/10/07

Lab ID: W07P001824
BATCH QC ASSOCIATED WITH SAMPLE

DUP	Chloride	16887-00-6	4.8086		RPD			0.733	20.000		09/10/07
DUP	Fluoride	16984-48-8	0.4257		RPD			1.307	20.000		09/10/07
DUP	Nitrogen in Nitrite	NO2-N	<1e-2		RPD			n/a	20.000	U	09/10/07
DUP	Nitrogen in Nitrate	NO3-N	1.5053		RPD			0.613	20.000		09/10/07
DUP	Sulfate	14808-79-8	14.6148		RPD			0.396	20.000		09/10/07
MS	Chloride	16887-00-6	1.1067	111.788	% Recov	75.000	125.000				09/10/07
MS	Fluoride	16984-48-8	0.5383	107.231	% Recov	75.000	125.000				09/10/07
MS	Nitrogen in Nitrite	NO2-N	0.459	92.169	% Recov	75.000	125.000				09/10/07
MS	Nitrogen in Nitrate	NO3-N	0.4316	95.698	% Recov	75.000	125.000				09/10/07
MS	Sulfate	14808-79-8	1.8895	95.429	% Recov	75.000	125.000				09/10/07
MSD	Chloride	16887-00-6	1.1087	111.990	% Recov	75.000	125.000				09/10/07
MSD	Fluoride	16984-48-8	0.5351	106.594	% Recov	75.000	125.000				09/10/07
MSD	Nitrogen in Nitrite	NO2-N	0.4585	92.068	% Recov	75.000	125.000				09/10/07
MSD	Nitrogen in Nitrate	NO3-N	0.4512	100.044	% Recov	75.000	125.000				09/10/07
MSD	Sulfate	14808-79-8	1.9424	98.101	% Recov	75.000	125.000				09/10/07
SPK-RPD	Chloride	16887-00-6	111.990		RPD			0.181	20.000		09/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071603
Matrix: WATER
Test: Anions by Ion Chromatography

Sample Date: 09/09/07
Receive Date:09/10/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	Fluoride	16984-48-8	106.594		RPD			0.596	20.000		09/10/07
SPK-RPD	Nitrogen in Nitrite	NO2-N	92.068		RPD			0.110	20.000		09/10/07
SPK-RPD	Nitrogen in Nitrate	NO3-N	100.044		RPD			4.441	20.000		09/10/07
SPK-RPD	Sulfate	14808-79-8	98.101		RPD			2.761	20.000		09/10/07
BATCH QC											
BLANK	Chloride	16887-00-6	<3e-2	n/a	mg/L	0.000	0.030			U	09/10/07
BLANK	Chloride	16887-00-6	<3e-2	n/a	mg/L	0.000	0.030			U	09/10/07
BLANK	Fluoride	16984-48-8	<6e-3	n/a	mg/L	0.000	0.030			U	09/10/07
BLANK	Fluoride	16984-48-8	<6e-3	n/a	mg/L	0.000	0.030			U	09/10/07
BLANK	Nitrogen in Nitrite	NO2-N	<1e-2	n/a	mg/L	0.000	0.020			U	09/10/07
BLANK	Nitrogen in Nitrite	NO2-N	<1e-2	n/a	mg/L	0.000	0.020			U	09/10/07
BLANK	Nitrogen in Nitrate	NO3-N	<5e-3	n/a	mg/L	0.000	0.040			U	09/10/07
BLANK	Nitrogen in Nitrate	NO3-N	<5e-3	n/a	mg/L	0.000	0.040			U	09/10/07
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	09/10/07
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	09/10/07
LCS	Chloride	16887-00-6	196.1808	98.090	% Recov	80.000	120.000				09/10/07
LCS	Fluoride	16984-48-8	106.6737	105.618	% Recov	80.000	120.000				09/10/07
LCS	Nitrogen in Nitrite	NO2-N	101.1289	101.129	% Recov	80.000	120.000				09/10/07
LCS	Nitrogen in Nitrate	NO3-N	91.2009	100.001	% Recov	80.000	120.000				09/10/07
LCS	Sulfate	14808-79-8	386.6172	96.654	% Recov	80.000	120.000				09/10/07
Lab ID: W07P001819											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Chloride	16887-00-6	8.5115		RPD			0.052	20.000		09/10/07
DUP	Fluoride	16984-48-8	0.4275		RPD			3.620	20.000		09/10/07
DUP	Nitrogen in Nitrite	NO2-N	<1e-2		RPD			n/a	20.000	U	09/10/07
DUP	Nitrogen in Nitrate	NO3-N	10.5439		RPD			1.708	20.000		09/10/07
DUP	Sulfate	14808-79-8	18.9443		RPD			0.355	20.000		09/10/07
MS	Chloride	16887-00-6	0.8719	88.071	% Recov	75.000	125.000				09/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Inorganic**

SDG Number: WSCF20071603
Matrix: WATER
Test: Anions by Ion Chromatography

Sample Date: 09/09/07
Receive Date:09/10/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	Fluoride	16984-48-8	0.5149	102.570	% Recov	75.000	125.000				09/10/07
MS	Nitrogen in Nitrite	NO2-N	0.5263	105.683	% Recov	75.000	125.000				09/10/07
MS	Nitrogen in Nitrate	NO3-N	0.43848	97.224	% Recov	75.000	125.000				09/10/07
MS	Sulfate	14808-79-8	1.8659	94.237	% Recov	75.000	125.000				09/10/07
MSD	Chloride	16887-00-6	0.8443	85.283	% Recov	75.000	125.000				09/10/07
MSD	Fluoride	16984-48-8	0.5327	106.116	% Recov	75.000	125.000				09/10/07
MSD	Nitrogen in Nitrite	NO2-N	0.5235	105.120	% Recov	75.000	125.000				09/10/07
MSD	Nitrogen in Nitrate	NO3-N	0.43753	97.013	% Recov	75.000	125.000				09/10/07
MSD	Sulfate	14808-79-8	1.9118	96.556	% Recov	75.000	125.000				09/10/07
SPK-RPD	Chloride	16887-00-6	85.283		RPD			3.217	20.000		09/11/07
SPK-RPD	Fluoride	16984-48-8	106.116		RPD			3.398	20.000		09/11/07
SPK-RPD	Nitrogen in Nitrite	NO2-N	105.120		RPD			0.534	20.000		09/11/07
SPK-RPD	Nitrogen in Nitrate	NO3-N	97.013		RPD			0.217	20.000		09/11/07
SPK-RPD	Sulfate	14808-79-8	96.556		RPD			2.431	20.000		09/11/07

BATCH QC

BLANK	Chloride	16887-00-6	<3e-2	n/a	mg/L	0.000	0.030			U	09/11/07
BLANK	Chloride	16887-00-6	<3e-2	n/a	mg/L	0.000	0.030			U	09/10/07
BLANK	Fluoride	16984-48-8	<6e-3	n/a	mg/L	0.000	0.030			U	09/10/07
BLANK	Fluoride	16984-48-8	<6e-3	n/a	mg/L	0.000	0.030			U	09/11/07
BLANK	Nitrogen in Nitrite	NO2-N	<1e-2	n/a	mg/L	0.000	0.020			U	09/10/07
BLANK	Nitrogen in Nitrite	NO2-N	<1e-2	n/a	mg/L	0.000	0.020			U	09/11/07
BLANK	Nitrogen in Nitrate	NO3-N	<5e-3	n/a	mg/L	0.000	0.040			U	09/10/07
BLANK	Nitrogen in Nitrate	NO3-N	<5e-3	n/a	mg/L	0.000	0.040			U	09/11/07
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	09/11/07
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	09/10/07
LCS	Chloride	16887-00-6	196.1988	98.099	% Recov	80.000	120.000				09/10/07
LCS	Fluoride	16984-48-8	105.3642	104.321	% Recov	80.000	120.000				09/10/07
LCS	Nitrogen in Nitrite	NO2-N	100.5778	100.578	% Recov	80.000	120.000				09/10/07
LCS	Nitrogen in Nitrate	NO3-N	91.2164	100.018	% Recov	80.000	120.000				09/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071603
Matrix: WATER
Test: Anions by Ion Chromatography

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	Sulfate	14808-79-8	385.0502	96.263	% Recov	80.000	120.000				09/10/07

Lab ID: W07P001796
BATCH QC ASSOCIATED WITH SAMPLE

DUP	Chloride	16887-00-6	16.5253		RPD			0.247	20.000		09/10/07
DUP	Fluoride	16984-48-8	0.1741		RPD			3.032	20.000		09/10/07
DUP	Nitrogen in Nitrite	NO2-N	<2e-2		RPD			n/a	20.000	U	09/10/07
DUP	Nitrogen in Nitrate	NO3-N	3.8978		RPD			4.695	20.000		09/10/07
DUP	Sulfate	14808-79-8	81.8078		RPD			1.982	20.000		09/10/07
MS	Chloride	16887-00-6	0.99075	100.076	% Recov	75.000	125.000				09/10/07
MS	Fluoride	16984-48-8	0.50015	99.631	% Recov	75.000	125.000				09/10/07
MS	Nitrogen in Nitrite	NO2-N	0.4899	98.373	% Recov	75.000	125.000				09/10/07
MS	Nitrogen in Nitrate	NO3-N	0.42669	94.610	% Recov	75.000	125.000				09/10/07
MS	Sulfate	14808-79-8	2.29951	116.137	% Recov	75.000	125.000				09/10/07
MSD	Chloride	16887-00-6	0.9404	94.990	% Recov	75.000	125.000				09/10/07
MSD	Fluoride	16984-48-8	0.49025	97.659	% Recov	75.000	125.000				09/10/07
MSD	Nitrogen in Nitrite	NO2-N	0.4765	95.683	% Recov	75.000	125.000				09/10/07
MSD	Nitrogen in Nitrate	NO3-N	0.45118	100.040	% Recov	75.000	125.000				09/10/07
MSD	Sulfate	14808-79-8	2.21325	111.780	% Recov	75.000	125.000				09/10/07
SPK-RPD	Chloride	16887-00-6	94.990		RPD			5.215	20.000		09/11/07
SPK-RPD	Fluoride	16984-48-8	97.659		RPD			1.999	20.000		09/11/07
SPK-RPD	Nitrogen in Nitrite	NO2-N	95.683		RPD			2.772	20.000		09/11/07
SPK-RPD	Nitrogen in Nitrate	NO3-N	100.040		RPD			5.579	20.000		09/11/07
SPK-RPD	Sulfate	14808-79-8	111.780		RPD			3.823	20.000		09/11/07

BATCH QC

BLANK	Chloride	16887-00-6	<3e-2	n/a	mg/L	0.000	0.030			U	09/10/07
BLANK	Chloride	16887-00-6	<3e-2	n/a	mg/L	0.000	0.030			U	09/11/07
BLANK	Fluoride	16984-48-8	<6e-3	n/a	mg/L	0.000	0.030			U	09/11/07
BLANK	Fluoride	16984-48-8	<6e-3	n/a	mg/L	0.000	0.030			U	09/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071603
Matrix: WATER
Test: Anions by Ion Chromatography

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Nitrogen in Nitrite	NO2-N	<1e-2	n/a	mg/L	0.000	0.020			U	09/10/07
BLANK	Nitrogen in Nitrite	NO2-N	<1e-2	n/a	mg/L	0.000	0.020			U	09/11/07
BLANK	Nitrogen in Nitrate	NO3-N	<5e-3	n/a	mg/L	0.000	0.040			U	09/10/07
BLANK	Nitrogen in Nitrate	NO3-N	<5e-3	n/a	mg/L	0.000	0.040			U	09/11/07
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	09/10/07
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	09/11/07
LCS	Chloride	16887-00-6	203.1285	101.564	% Recov	80.000	120.000				09/10/07
LCS	Fluoride	16984-48-8	108.1728	107.102	% Recov	80.000	120.000				09/10/07
LCS	Nitrogen in Nitrite	NO2-N	103.9068	103.907	% Recov	80.000	120.000				09/10/07
LCS	Nitrogen in Nitrate	NO3-N	93.7728	102.821	% Recov	80.000	120.000				09/10/07
LCS	Sulfate	14808-79-8	397.472	99.368	% Recov	80.000	120.000				09/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071603
Matrix: WATER
Test: Cyanide by Midi/Spectrophotom

Sample Date: 09/06/07
Receive Date:09/06/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02361											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Cyanide by Midi/Spectrophotom	57-12-5	36.5	93.350	% Recov	75.000	125.000				09/18/07
MSD	Cyanide by Midi/Spectrophotom	57-12-5	38.8	99.233	% Recov	75.000	125.000				09/18/07
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	99.233		RPD			6.110	20.000		09/18/07
Lab ID: W07P001796											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Cyanide by Midi/Spectrophotom	57-12-5	39.9	102.046	% Recov	75.000	125.000				09/18/07
MSD	Cyanide by Midi/Spectrophotom	57-12-5	38.8	99.233	% Recov	75.000	125.000				09/18/07
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	99.233		RPD			2.795	20.000		09/18/07
BATCH QC											
BLANK	Cyanide by Midi/Spectrophotom	57-12-5	0.1	0.100	ug/L	-4.000	4.000				09/18/07
LCS	Cyanide by Midi/Spectrophotom	57-12-5	47.9	97.955	% Recov	85.000	115.000				09/18/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071603
Matrix: WATER
Test: Hexavalent chromium

Sample Date: 09/09/07
Receive Date:09/10/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07P001839											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Hexavalent chromium	18540-29-9	<0.002		RPD			n/a	15.000	U	09/10/07
MS	Hexavalent chromium	18540-29-9	0.0538	101.894	% Recov	85.000	115.000				09/10/07
MSD	Hexavalent chromium	18540-29-9	0.0538	101.894	% Recov	85.000	115.000				09/10/07
SPK-RPD	Hexavalent chromium	18540-29-9	101.894		RPD			0.000	20.000		09/10/07
BATCH QC											
BLANK	Hexavalent chromium	18540-29-9	<0.002	n/a	mg/L	0.000	2.000			U	09/10/07
BLANK	Hexavalent chromium	18540-29-9	<0.002	n/a	mg/L	0.000	2.000			U	09/10/07
LCS	Hexavalent chromium	18540-29-9	0.0502	101.006	% Recov	80.000	120.000				09/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071603
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 09/09/07
Receive Date:09/10/07

Lab ID: W07P001795
BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	Silver	7440-22-4	960.9	96.090	% Recov	75.000	125.000				10/10/07
MS	Barium	7440-39-3	488.2	97.640	% Recov	75.000	125.000				10/10/07
MS	Beryllium	7440-41-7	507.2	101.440	% Recov	75.000	125.000				10/10/07
MS	Calcium	7440-70-2	NA	n/a	% Recov	75.000	125.000				10/10/07
MS	Cadmium	7440-43-9	994.3	99.430	% Recov	75.000	125.000				10/10/07
MS	Cobalt	7440-48-4	980.4	98.040	% Recov	75.000	125.000				10/10/07
MS	Chromium	7440-47-3	969.7	96.970	% Recov	75.000	125.000				10/10/07
MS	Copper	7440-50-8	989.5	98.950	% Recov	75.000	125.000				10/10/07
MS	Iron	7439-89-6	966.2	96.620	% Recov	75.000	125.000				10/10/07
MS	Potassium	7440-09-7	10673	106.730	% Recov	75.000	125.000				10/10/07
MS	Magnesium	7439-95-4	NA	n/a	% Recov	75.000	125.000				10/10/07
MS	Manganese	7439-96-5	981.9	98.190	% Recov	75.000	125.000				10/10/07
MS	Sodium	7440-23-5	NA	n/a	% Recov	75.000	125.000				10/10/07
MS	Nickel	7440-02-0	948.8	94.880	% Recov	75.000	125.000				10/10/07
MS	Antimony	7440-36-0	1025	102.500	% Recov	75.000	125.000				10/10/07
MS	Strontium	7440-24-6	505.6	101.120	% Recov	75.000	125.000				10/10/07
MS	Vanadium	7440-62-2	950.9	95.090	% Recov	75.000	125.000				10/10/07
MS	Zinc	7440-66-6	1000.3	100.030	% Recov	75.000	125.000				10/10/07
MSD	Silver	7440-22-4	948	94.800	% Recov	75.000	125.000				10/10/07
MSD	Barium	7440-39-3	487.6	97.520	% Recov	75.000	125.000				10/10/07
MSD	Beryllium	7440-41-7	506.4	101.280	% Recov	75.000	125.000				10/10/07
MSD	Calcium	7440-70-2	NA	n/a	% Recov	75.000	125.000				10/10/07
MSD	Cadmium	7440-43-9	997.6	99.760	% Recov	75.000	125.000				10/10/07
MSD	Cobalt	7440-48-4	983.9	98.390	% Recov	75.000	125.000				10/10/07
MSD	Chromium	7440-47-3	971	97.100	% Recov	75.000	125.000				10/10/07
MSD	Copper	7440-50-8	983.3	98.330	% Recov	75.000	125.000				10/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071603
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 09/09/07
Receive Date:09/10/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Iron	7439-89-6	1055.2	105.520	% Recov	75.000	125.000				10/10/07
MSD	Potassium	7440-09-7	10693	106.930	% Recov	75.000	125.000				10/10/07
MSD	Magnesium	7439-95-4	NA	n/a	% Recov	75.000	125.000				10/10/07
MSD	Manganese	7439-96-5	981.7	98.170	% Recov	75.000	125.000				10/10/07
MSD	Sodium	7440-23-5	NA	n/a	% Recov	75.000	125.000				10/10/07
MSD	Nickel	7440-02-0	953.6	95.360	% Recov	75.000	125.000				10/10/07
MSD	Antimony	7440-36-0	1024	102.400	% Recov	75.000	125.000				10/10/07
MSD	Strontium	7440-24-6	505.3	101.060	% Recov	75.000	125.000				10/10/07
MSD	Vanadium	7440-62-2	950.1	95.010	% Recov	75.000	125.000				10/10/07
MSD	Zinc	7440-66-6	994.3	99.430	% Recov	75.000	125.000				10/10/07
SPK-RPD	Silver	7440-22-4	94.800		RPD			1.352	20.000		10/10/07
SPK-RPD	Barium	7440-39-3	97.520		RPD			0.123	20.000		10/10/07
SPK-RPD	Beryllium	7440-41-7	101.280		RPD			0.158	20.000		10/10/07
SPK-RPD	Calcium	7440-70-2			RPD			n/a	20.000		10/10/07
SPK-RPD	Cadmium	7440-43-9	99.760		RPD			0.331	20.000		10/10/07
SPK-RPD	Cobalt	7440-48-4	98.390		RPD			0.356	20.000		10/10/07
SPK-RPD	Chromium	7440-47-3	97.100		RPD			0.134	20.000		10/10/07
SPK-RPD	Copper	7440-50-8	98.330		RPD			0.629	20.000		10/10/07
SPK-RPD	Iron	7439-89-6	105.520		RPD			8.806	20.000		10/10/07
SPK-RPD	Potassium	7440-09-7	106.930		RPD			0.187	20.000		10/10/07
SPK-RPD	Magnesium	7439-95-4			RPD			n/a	20.000		10/10/07
SPK-RPD	Manganese	7439-96-5	98.170		RPD			0.020	20.000		10/10/07
SPK-RPD	Sodium	7440-23-5			RPD			n/a	20.000		10/10/07
SPK-RPD	Nickel	7440-02-0	95.360		RPD			0.505	20.000		10/10/07
SPK-RPD	Antimony	7440-36-0	102.400		RPD			0.098	20.000		10/10/07
SPK-RPD	Strontium	7440-24-6	101.060		RPD			0.059	20.000		10/10/07
SPK-RPD	Vanadium	7440-62-2	95.010		RPD			0.084	20.000		10/10/07
SPK-RPD	Zinc	7440-66-6	99.430		RPD			0.602	20.000		10/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071603
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BATCH QC											
BLANK	Silver	7440-22-4	9.6	9.600	ug/L						10/10/07
BLANK	Barium	7440-39-3	5.6	5.600	ug/L						10/10/07
BLANK	Beryllium	7440-41-7	<4	n/a	ug/L					U	10/10/07
BLANK	Calcium	7440-70-2	<34	n/a	ug/L					U	10/10/07
BLANK	Cadmium	7440-43-9	<4	n/a	ug/L					U	10/10/07
BLANK	Cobalt	7440-48-4	6.8	6.800	ug/L						10/10/07
BLANK	Chromium	7440-47-3	6.1	6.100	ug/L						10/10/07
BLANK	Copper	7440-50-8	6.7	6.700	ug/L						10/10/07
BLANK	Iron	7439-89-6	13.6	13.600	ug/L						10/10/07
BLANK	Potassium	7440-09-7	<45	n/a	ug/L					U	10/10/07
BLANK	Magnesium	7439-95-4	25.3	25.300	ug/L						10/10/07
BLANK	Manganese	7439-96-5	5.7	5.700	ug/L						10/10/07
BLANK	Sodium	7440-23-5	<27	n/a	ug/L					U	10/10/07
BLANK	Nickel	7440-02-0	14.7	14.700	ug/L						10/10/07
BLANK	Antimony	7440-36-0	<32	n/a	ug/L					U	10/10/07
BLANK	Strontium	7440-24-6	<4	n/a	ug/L					U	10/10/07
BLANK	Vanadium	7440-62-2	23.8	23.800	ug/L						10/10/07
BLANK	Zinc	7440-66-6	15.9	15.900	ug/L						10/10/07
LCS	Silver	7440-22-4	941.4	94.140	% Recov	80.000	120.000				10/10/07
LCS	Barium	7440-39-3	472.6	94.520	% Recov	80.000	120.000				10/10/07
LCS	Beryllium	7440-41-7	499.4	99.880	% Recov	80.000	120.000				10/10/07
LCS	Calcium	7440-70-2	1043	104.300	% Recov	80.000	120.000				10/10/07
LCS	Cadmium	7440-43-9	984.7	98.470	% Recov	80.000	120.000				10/10/07
LCS	Cobalt	7440-48-4	980.3	98.030	% Recov	80.000	120.000				10/10/07
LCS	Chromium	7440-47-3	965.8	96.580	% Recov	80.000	120.000				10/10/07
LCS	Copper	7440-50-8	978.3	97.830	% Recov	80.000	120.000				10/10/07
LCS	Iron	7439-89-6	956.6	95.660	% Recov	80.000	120.000				10/10/07
LCS	Potassium	7440-09-7	10250	102.500	% Recov	80.000	120.000				10/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071603
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	Magnesium	7439-95-4	975.7	97.570	% Recov	80.000	120.000				10/10/07
LCS	Manganese	7439-96-5	965.8	96.580	% Recov	80.000	120.000				10/10/07
LCS	Sodium	7440-23-5	946.1	94.610	% Recov	80.000	120.000				10/10/07
LCS	Nickel	7440-02-0	964.9	96.490	% Recov	80.000	120.000				10/10/07
LCS	Antimony	7440-36-0	988.3	98.830	% Recov	80.000	120.000				10/10/07
LCS	Strontium	7440-24-6	469.2	93.840	% Recov	80.000	120.000				10/10/07
LCS	Vanadium	7440-62-2	968.5	96.850	% Recov	80.000	120.000				10/10/07
LCS	Zinc	7440-66-6	991.5	99.150	% Recov	80.000	120.000				10/10/07

Lab ID: W07P001816
BATCH QC ASSOCIATED WITH SAMPLE

MS	Silver	7440-22-4	930.4	93.040	% Recov	75.000	125.000				10/10/07
MS	Barium	7440-39-3	476.1	95.220	% Recov	75.000	125.000				10/10/07
MS	Beryllium	7440-41-7	499.3	99.860	% Recov	75.000	125.000				10/10/07
MS	Calcium	7440-70-2	NA	n/a	% Recov	75.000	125.000				10/10/07
MS	Cadmium	7440-43-9	973.2	97.320	% Recov	75.000	125.000				10/10/07
MS	Cobalt	7440-48-4	961.7	96.170	% Recov	75.000	125.000				10/10/07
MS	Chromium	7440-47-3	971	97.100	% Recov	75.000	125.000				10/10/07
MS	Copper	7440-50-8	973.6	97.360	% Recov	75.000	125.000				10/10/07
MS	Iron	7439-89-6	951.9	95.190	% Recov	75.000	125.000				10/10/07
MS	Potassium	7440-09-7	10076	100.760	% Recov	75.000	125.000				10/10/07
MS	Magnesium	7439-95-4	NA	n/a	% Recov	75.000	125.000				10/10/07
MS	Manganese	7439-96-5	964.5	96.450	% Recov	75.000	125.000				10/10/07
MS	Sodium	7440-23-5	NA	n/a	% Recov	75.000	125.000				10/10/07
MS	Nickel	7440-02-0	937.6	93.760	% Recov	75.000	125.000				10/10/07
MS	Antimony	7440-36-0	1014	101.400	% Recov	75.000	125.000				10/10/07
MS	Strontium	7440-24-6	488.2	97.640	% Recov	75.000	125.000				10/10/07
MS	Vanadium	7440-62-2	946.1	94.610	% Recov	75.000	125.000				10/10/07
MS	Zinc	7440-66-6	980.4	98.040	% Recov	75.000	125.000				10/10/07
MSD	Silver	7440-22-4	927.3	92.730	% Recov	75.000	125.000				10/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071603
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 09/09/07
Receive Date:09/10/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Barium	7440-39-3	476.4	95.280	% Recov	75.000	125.000				10/10/07
MSD	Beryllium	7440-41-7	492.4	98.480	% Recov	75.000	125.000				10/10/07
MSD	Calcium	7440-70-2	NA	n/a	% Recov	75.000	125.000				10/10/07
MSD	Cadmium	7440-43-9	958.8	95.880	% Recov	75.000	125.000				10/10/07
MSD	Cobalt	7440-48-4	945.1	94.510	% Recov	75.000	125.000				10/10/07
MSD	Chromium	7440-47-3	957.3	95.730	% Recov	75.000	125.000				10/10/07
MSD	Copper	7440-50-8	967.9	96.790	% Recov	75.000	125.000				10/10/07
MSD	Iron	7439-89-6	933.3	93.330	% Recov	75.000	125.000				10/10/07
MSD	Potassium	7440-09-7	10056	100.560	% Recov	75.000	125.000				10/10/07
MSD	Magnesium	7439-95-4	NA	n/a	% Recov	75.000	125.000				10/10/07
MSD	Manganese	7439-96-5	957.5	95.750	% Recov	75.000	125.000				10/10/07
MSD	Sodium	7440-23-5	NA	n/a	% Recov	75.000	125.000				10/10/07
MSD	Nickel	7440-02-0	923	92.300	% Recov	75.000	125.000				10/10/07
MSD	Antimony	7440-36-0	991.6	99.160	% Recov	75.000	125.000				10/10/07
MSD	Strontium	7440-24-6	483.8	96.760	% Recov	75.000	125.000				10/10/07
MSD	Vanadium	7440-62-2	937.2	93.720	% Recov	75.000	125.000				10/10/07
MSD	Zinc	7440-66-6	964.6	96.460	% Recov	75.000	125.000				10/10/07
SPK-RPD	Silver	7440-22-4	92.730		RPD			0.334	20.000		10/10/07
SPK-RPD	Barium	7440-39-3	95.280		RPD			0.063	20.000		10/10/07
SPK-RPD	Beryllium	7440-41-7	98.480		RPD			1.392	20.000		10/10/07
SPK-RPD	Calcium	7440-70-2			RPD			n/a	20.000		10/10/07
SPK-RPD	Cadmium	7440-43-9	95.880		RPD			1.491	20.000		10/10/07
SPK-RPD	Cobalt	7440-48-4	94.510		RPD			1.741	20.000		10/10/07
SPK-RPD	Chromium	7440-47-3	95.730		RPD			1.421	20.000		10/10/07
SPK-RPD	Copper	7440-50-8	96.790		RPD			0.587	20.000		10/10/07
SPK-RPD	Iron	7439-89-6	93.330		RPD			1.973	20.000		10/10/07
SPK-RPD	Potassium	7440-09-7	100.560		RPD			0.199	20.000		10/10/07
SPK-RPD	Magnesium	7439-95-4			RPD			n/a	20.000		10/10/07
SPK-RPD	Manganese	7439-96-5	95.750		RPD			0.728	20.000		10/10/07
SPK-RPD	Sodium	7440-23-5			RPD			n/a	20.000		10/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071603
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 09/09/07
Receive Date:09/10/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	Nickel	7440-02-0	92.300		RPD			1.569	20.000		10/10/07
SPK-RPD	Antimony	7440-36-0	99.160		RPD			2.234	20.000		10/10/07
SPK-RPD	Strontium	7440-24-6	96.760		RPD			0.905	20.000		10/10/07
SPK-RPD	Vanadium	7440-62-2	93.720		RPD			0.945	20.000		10/10/07
SPK-RPD	Zinc	7440-66-6	96.460		RPD			1.625	20.000		10/10/07

BATCH QC

BLANK	Silver	7440-22-4	11.9	11.900	ug/L						10/10/07
BLANK	Barium	7440-39-3	5.4	5.400	ug/L						10/10/07
BLANK	Beryllium	7440-41-7	<4	n/a	ug/L					U	10/10/07
BLANK	Calcium	7440-70-2	<34	n/a	ug/L					U	10/10/07
BLANK	Cadmium	7440-43-9	<4	n/a	ug/L					U	10/10/07
BLANK	Cobalt	7440-48-4	9.3	9.300	ug/L						10/10/07
BLANK	Chromium	7440-47-3	6.5	6.500	ug/L						10/10/07
BLANK	Copper	7440-50-8	7	7.000	ug/L						10/10/07
BLANK	Iron	7439-89-6	<9	n/a	ug/L					U	10/10/07
BLANK	Potassium	7440-09-7	<45	n/a	ug/L					U	10/10/07
BLANK	Magnesium	7439-95-4	11.8	11.800	ug/L						10/10/07
BLANK	Manganese	7439-96-5	5.1	5.100	ug/L						10/10/07
BLANK	Sodium	7440-23-5	<27	n/a	ug/L					U	10/10/07
BLANK	Nickel	7440-02-0	15.2	15.200	ug/L						10/10/07
BLANK	Antimony	7440-36-0	<32	n/a	ug/L					U	10/10/07
BLANK	Strontium	7440-24-6	<4	n/a	ug/L					U	10/10/07
BLANK	Vanadium	7440-62-2	27.8	27.800	ug/L						10/10/07
BLANK	Zinc	7440-66-6	13.9	13.900	ug/L						10/10/07
LCS	Silver	7440-22-4	951.5	95.150	% Recov	80.000	120.000				10/10/07
LCS	Barium	7440-39-3	475.5	95.100	% Recov	80.000	120.000				10/10/07
LCS	Beryllium	7440-41-7	504.7	100.940	% Recov	80.000	120.000				10/10/07
LCS	Calcium	7440-70-2	1054	105.400	% Recov	80.000	120.000				10/10/07
LCS	Cadmium	7440-43-9	976.4	97.640	% Recov	80.000	120.000				10/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071603
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	Cobalt	7440-48-4	985.8	98.580	% Recov	80.000	120.000				10/10/07
LCS	Chromium	7440-47-3	964.8	96.480	% Recov	80.000	120.000				10/10/07
LCS	Copper	7440-50-8	993	99.300	% Recov	80.000	120.000				10/10/07
LCS	Iron	7439-89-6	953.7	95.370	% Recov	80.000	120.000				10/10/07
LCS	Potassium	7440-09-7	10160	101.600	% Recov	80.000	120.000				10/10/07
LCS	Magnesium	7439-95-4	979.7	97.970	% Recov	80.000	120.000				10/10/07
LCS	Manganese	7439-96-5	962.3	96.230	% Recov	80.000	120.000				10/10/07
LCS	Sodium	7440-23-5	944.7	94.470	% Recov	80.000	120.000				10/10/07
LCS	Nickel	7440-02-0	962.9	96.290	% Recov	80.000	120.000				10/10/07
LCS	Antimony	7440-36-0	1032	103.200	% Recov	80.000	120.000				10/10/07
LCS	Strontium	7440-24-6	475.7	95.140	% Recov	80.000	120.000				10/10/07
LCS	Vanadium	7440-62-2	971.6	97.160	% Recov	80.000	120.000				10/10/07
LCS	Zinc	7440-66-6	997.1	99.710	% Recov	80.000	120.000				10/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071603
Matrix: WATER
Test: ICP-200.8 MS All possible meta

Sample Date: 09/06/07
Receive Date:09/06/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07P001724											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Uranium	7440-61-1	42.03	105.075	% Recov	70.000	130.000				09/18/07
MSD	Uranium	7440-61-1	45.33	113.325	% Recov	70.000	130.000				09/18/07
SPK-RPD	Uranium	7440-61-1	113.325		RPD			7.555	20.000		09/18/07
Lab ID: W07P001796											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Uranium	7440-61-1	42.82	107.050	% Recov	70.000	130.000				09/18/07
MSD	Uranium	7440-61-1	42.78	106.950	% Recov	70.000	130.000				09/18/07
SPK-RPD	Uranium	7440-61-1	106.950		RPD			0.093	20.000		09/18/07
BATCH QC											
BLANK	Aluminum	7429-90-5	8.58	8.580	ug/L	-999.000	999.000				09/18/07
BLANK	Arsenic	7440-38-2	<0.4	n/a	ug/L					U	09/18/07
BLANK	Thallium	7440-28-0	0.13	0.130	ug/L						09/18/07
BLANK	Uranium	7440-61-1	<5e-2	n/a	ug/L					U	09/18/07
BLANK	Uranium	7440-61-1	<5e-2	n/a	ug/L					U	09/18/07
LCS	Aluminum	7429-90-5	410.3	102.575	% Recov	85.000	115.000				09/18/07
LCS	Arsenic	7440-38-2	36.43	91.075	% Recov	85.000	115.000				09/18/07
LCS	Thallium	7440-28-0	40.09	100.225	% Recov	85.000	115.000				09/18/07
LCS	Uranium	7440-61-1	36.4	91.000	% Recov	85.000	115.000				09/18/07
LCS	Uranium	7440-61-1	40.4	101.000	% Recov	85.000	115.000				09/18/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071603
Matrix: WATER
Test: Total Alkalinity as mg/L CaCO3

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

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07P001774											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Total Alkalinity as mg/L CaCO3	ALKALINITY	68.70		RPD			0.855	20.000		09/14/07
BATCH QC											
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	52.84	99.698	%Recove	80.000	120.000				09/14/07
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	52.99	99.981	%Recove	80.000	120.000				09/14/07
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	53.07	100.132	%Recove	80.000	120.000				09/14/07
Lab ID: W07GR02373											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Total Alkalinity as mg/L CaCO3	ALKALINITY	123.1		RPD			1.391	20.000		09/17/07
Lab ID: W07P001825											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Total Alkalinity as mg/L CaCO3	ALKALINITY	92.92		RPD			1.326	20.000		09/17/07
BATCH QC											
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	121.8	105.913	%Recove	80.000	120.000				09/17/07
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	122.3	106.348	%Recove	80.000	120.000				09/17/07
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	124.7	108.435	%Recove	80.000	120.000				09/17/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071603
Matrix: WATER
Test: Total Organic Carbon

Sample Date: 09/09/07
Receive Date:09/10/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07P001836											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Total Organic Carbon	TOC	0.9636	96.360	% Recov	75.000	125.000				09/20/07
MSD	Total Organic Carbon	TOC	0.9336	93.360	% Recov	75.000	125.000				09/20/07
SPK-RPD	Total Organic Carbon	TOC	93.360		RPD			3.163	20.000		09/20/07
Lab ID: W07P001899											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Total Organic Carbon	TOC	0.9344	93.440	% Recov	75.000	125.000				09/20/07
MSD	Total Organic Carbon	TOC	0.9094	90.940	% Recov	75.000	125.000				09/20/07
SPK-RPD	Total Organic Carbon	TOC	90.940		RPD			2.712	20.000		09/20/07
BATCH QC											
BLANK	Total Organic Carbon	TOC	0.0000	0.000	mg/L	0.000	300.000				09/20/07
METHSPIKE	Total Organic Carbon	TOC	0.9394	93.940	% Recov	80.000	120.000				09/20/07
SPK-RSD	Total Organic Carbon	TOC	0.3485	0.348	% RSD	0.000	20.000				09/20/07

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent E6-35

Group #: WSCF20071603
Department: Inorganic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-MS: Aluminum and Thallium prep blank results above the MDL. Sample results for thallium below the MDL. No flag Aluminum results "C" flagged Sample W07-1796 spiked, but Aluminum, Arsenic and Thallium were not requested on this sample. SPIKE RECOVERIES AND RPDs Analyte MS %Rec MSD %Rec % RPD Aluminum 85 86 1.2 Arsenic 88 85 3.5 Thallium 102 102 0 Raw instrument data contains the information on the spikes. W07P001796,1812-15/Tc99 batch matrix spike recovery is flagged for being slightly out of limits. The sample activity was high in relation to the spike acitivity. All other QC was acceptable so this batch has been approved. ICP-AES: [Samples W07P1795-1814] High barium, chromium, manganese, nickel, silver, vanadium, zinc, iron, magnesium, cobalt, and copper preparation blank results; "C" flag if applicable. Magnesium, sodium, and calcium sample results beyond effective spike range (spike results marked "NA"). Check and high standards used to ensure magnesium, sodium,

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

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

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent E6-35

Group #: WSCF20071603
Department: Inorganic

Sample #	Client ID	Lab Area	Test	Comment
				and calcium linearity because sample results are greater than the calibration standard.
				ICP-AES: [Samples W07P1816-1840] High barium, chromium, manganese, nickel, silver, vanadium, zinc, magnesium, cobalt, and copper preparation blank results; "C" flag if applicable. Magnesium, sodium, and calcium sample results beyond effective spike range (spike results marked "NA"). Check and high standards used to ensure magnesium, sodium, and calcium linearity because sample results are greater than the calibration standard.

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

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S07-008
Sample # W07P001794
Client ID: B1PBK2 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Organic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
VOA Ground Water Protection											
1,1-Dichloroethene	75-35-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Chloroform	67-66-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Methylenechloride	75-09-2	LA-523-455		11.0	ug/L			1.00	1.0		09/19/07
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
1-Butanol	71-36-3	LA-523-455	U	< 100	ug/L			1.00	1.0e+02		09/19/07
Tetrahydrofuran	109-99-9	LA-523-455	U	< 2.00	ug/L			1.00	2.0		09/19/07
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

Report WGPP/ver. 5.2
GPAP

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S07-008
Sample # W07P001794
Client ID: B1PBK2 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Organic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Ethyl cyanide	107-12-0	LA-523-455	U	< 2.00	ug/L			1.00	2.0		09/19/07
1,4-Dichlorobenzene	106-46-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S07-009
Sample # W07P001840
Client ID: B1PFT3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Organic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
SW-846 8270C Semi-Vols Prep											**09/11/07**
SW-846 8270C Semi-Vols											
4-Nitrophenol	100-02-7	LA-523-456	U	< 0.970	ug/L			1.00	0.97		09/17/07
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	< 1.40	ug/L			1.00	1.4		09/17/07
Phenol	108-95-2	LA-523-456	U	< 0.480	ug/L			1.00	0.48		09/17/07
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	< 2.10	ug/L			1.00	2.1		09/17/07
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	< 0.480	ug/L			1.00	0.48		09/17/07
Pyrene	129-00-0	LA-523-456	U	< 0.480	ug/L			1.00	0.48		09/17/07
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	< 0.480	ug/L			1.00	0.48		09/17/07
N-Nitrosodi-n-dipropylamine	621-64-7	LA-523-456	U	< 0.580	ug/L			1.00	0.58		09/17/07
Acenaphthene	83-32-9	LA-523-456	U	< 2.50	ug/L			1.00	2.5		09/17/07
Pentachlorophenol	87-86-5	LA-523-456	U	< 1.40	ug/L			1.00	1.4		09/17/07
2-Chlorophenol	95-57-8	LA-523-456	U	< 0.480	ug/L			1.00	0.48		09/17/07
Bis(2-ethylhexyl) phthalate	117-81-7	LA-523-456		4.10	ug/L			1.00	0.77		09/17/07
2,4-Dichlorophenol	120-83-2	LA-523-456	U	< 0.480	ug/L			1.00	0.48		09/17/07
2-Nitrophenol	88-75-5	LA-523-456	U	< 0.480	ug/L			1.00	0.48		09/17/07
Naphthalene	91-20-3	LA-523-456	U	< 2.00	ug/L			1.00	2.0		09/17/07
2-Methylphenol (cresol, o-)	95-48-7	LA-523-456	U	< 0.480	ug/L			1.00	0.48		09/17/07
3 & 4 Methylphenol Total	65794-96-9	LA-523-456	U	< 0.480	ug/L			1.00	0.48		09/17/07
Tributyl phosphate	126-73-8	LA-523-456	U	< 0.480	ug/L			1.00	0.48		09/17/07
Benzothiazole	95-16-9	LA-523-456	U	< 0.580	ug/L			1.00	0.58		09/17/07
2-Picoline	109-06-8	LA-523-456	U	< 4.80	ug/L			1.00	4.8		09/17/07
Total cresols	1319-77-3	LA-523-456	U	< 0.970	ug/L			1.00	0.97		09/17/07
Tris-2-chloroethyl phosphate	115-96-8	LA-523-456	U	< 0.630	ug/L			1.00	0.63		09/17/07
VOA Ground Water Protection											

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

Report WGPP/ver. 5.2
GPAP

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S07-009
Sample # W07P001840
Client ID: B1PFT3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Organic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
1,1-Dichloroethene	75-35-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Toluene	108-88-3	LA-523-455	J	3.00	ug/L			1.00	1.0		09/19/07
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Chloroform	67-66-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
1-Butanol	71-36-3	LA-523-455	U	< 100	ug/L			1.00	1.0e+02		09/19/07
Tetrahydrofuran	109-99-9	LA-523-455	U	< 2.00	ug/L			1.00	2.0		09/19/07
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07
Ethyl cyanide	107-12-0	LA-523-455	U	< 2.00	ug/L			1.00	2.0		09/19/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

Report WGPP/ver. 5.2
GPAP

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S07-009
Sample # W07P001840
Client ID: B1PFT3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Organic
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
1,4-Dichlorobenzene	106-46-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/19/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent E6-35

Group #: WSCF20071603
Department: Organic

Sample #	Client ID		Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W07P001840	B1PFT3	PNNL-GPP	SW-846 8270C Semi-Vols	SMP 10.605 2(3H)-Furanone, 5-hexy	706-14-9	10.60546	J	17	ug/L
W07P001840	B1PFT3	PNNL-GPP	SW-846 8270C Semi-Vols	SMP 11.925 Unknown Organic Acid	Unknown	11.92551	J	4.9	ug/L
W07P001840	B1PFT3	PNNL-GPP	SW-846 8270C Semi-Vols	SMP 13.250 Unknown	Unknown	13.25093	J	5.2	ug/L
W07P001840	B1PFT3	PNNL-GPP	SW-846 8270C Semi-Vols	SMP 13.780 Unknown Alcohol	Unknown	13.78001	J	4.3	ug/L
W07P001840	B1PFT3	PNNL-GPP	SW-846 8270C Semi-Vols	SMP 15.174 Phenol, 4,4'-(1-methyl	80-05-7	15.1749	J	44	ug/L
W07P001840	B1PFT3	PNNL-GPP	SW-846 8270C Semi-Vols	SMP 15.490 Unknown Alcohol	Unknown	15.49021	J	38	ug/L
W07P001840	B1PFT3	PNNL-GPP	SW-846 8270C Semi-Vols	SMP 15.933 Butylbenzylphthalate	85-68-7	15.9338		1.7	ug/L
W07P001840	B1PFT3	PNNL-GPP	SW-846 8270C Semi-Vols	SMP 16.420 Unknown Phthalate	Unknown	16.42013	J	4.9	ug/L
W07P001840	B1PFT3	PNNL-GPP	SW-846 8270C Semi-Vols	SMP 16.521 Unknown Phthalate	Unknown	16.52168	J	18	ug/L
W07P001840	B1PFT3	PNNL-GPP	SW-846 8270C Semi-Vols	SMP 16.564 Unknown Phthalate	Unknown	16.56443	J	8.3	ug/L
W07P001840	B1PFT3	PNNL-GPP	SW-846 8270C Semi-Vols	SMP 16.623 Unknown Phthalate	Unknown	16.62321	J	3.9	ug/L
W07P001840	B1PFT3	PNNL-GPP	SW-846 8270C Semi-Vols	SMP 16.698 Unknown Phthalate	Unknown	16.69805	J	8.5	ug/L
W07P001840	B1PFT3	PNNL-GPP	SW-846 8270C Semi-Vols	SMP 16.756 Dibutyl phthalate	84-74-2	16.75683	J	4.0	ug/L
W07P001840	B1PFT3	PNNL-GPP	SW-846 8270C Semi-Vols	SMP 17.660 Di-n-octylphthalate	117-84-0	17.66003		12	ug/L
W07P001840	B1PFT3	PNNL-GPP	SW-846 8270C Semi-Vols	SMP 6.538 Ethane, 1,1'-oxybis[2-	111-96-6	6.5384	J	4.3	ug/L
W07P001840	B1PFT3	PNNL-GPP	SW-846 8270C Semi-Vols	SMP 7.479 Acetophenone	98-86-2	7.479	J	4.0	ug/L

RQ=Result Qualifier J - Analyte < lowest calibration but > = MDL.(org)

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

GPAP

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071603
Matrix: WATER
Test: SW-846 8270C Semi-Vols

Sample Date: 09/09/07
Receive Date:09/10/07

Lab ID: W07P001840
BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	1,2,4-Trichlorobenzene	120-82-1	17.568	90.900	% Recov	50.000	120.000				09/17/07
MS	1,4-Dichlorobenzene	106-46-7	17.482	90.500	% Recov	41.000	113.000				09/17/07
MS	2,4-Dinitrotoluene	121-14-2	17.462	90.400	% Recov	65.000	109.000				09/17/07
MS	2-Fluorophenol(Surr)	367-12-4	17.775	92.000	% Recov	50.000	110.000				09/17/07
MS	Acenaphthene	83-32-9	17.190	89.000	% Recov	62.000	112.000				09/17/07
MS	4-Chloro-3-methylphenol	59-50-7	26.407	91.100	% Recov	59.000	115.000				09/17/07
MS	2-Chlorophenol	95-57-8	26.903	92.800	% Recov	69.000	111.000				09/17/07
MS	N-Nitrosodi-n-dipropylamine	621-64-7	17.351	89.800	% Recov	69.000	115.000				09/17/07
MS	2-Fluorobiphenyl(Surr)	321-60-8	17.001	88.000	% Recov	58.000	109.000				09/17/07
MS	Phenol	108-95-2	28.208	97.300	% Recov	59.000	115.000				09/17/07
MS	Nitrobenzene-d5(Surr)	4165-60-0	18.232	94.400	% Recov	60.000	118.000				09/17/07
MS	4-Nitrophenol	100-02-7	25.965	89.600	% Recov	32.000	130.000				09/17/07
MS	Pentachlorophenol	87-86-5	27.537	95.000	% Recov	51.000	121.000				09/17/07
MS	Phenol-d5(Surr)	4165-62-2	18.579	96.100	% Recov	59.000	116.000				09/17/07
MS	Pyrene	129-00-0	16.212	83.900	% Recov	58.000	116.000				09/17/07
MS	2,4,6-Tribromophenol(Surr)	118-79-6	17.982	93.100	% Recov	60.000	120.000				09/17/07
MS	Terphenyl-d14(Surr)	98904-43-9	16.942	87.700	% Recov	60.000	120.000				09/17/07
MSD	1,2,4-Trichlorobenzene	120-82-1	16.920	87.600	% Recov	50.000	120.000				09/17/07
MSD	1,4-Dichlorobenzene	106-46-7	16.893	87.400	% Recov	41.000	113.000				09/17/07
MSD	2,4-Dinitrotoluene	121-14-2	17.076	88.400	% Recov	65.000	109.000				09/17/07
MSD	2-Fluorophenol(Surr)	367-12-4	17.918	92.700	% Recov	50.000	110.000				09/17/07
MSD	Acenaphthene	83-32-9	17.985	93.100	% Recov	62.000	112.000				09/17/07
MSD	4-Chloro-3-methylphenol	59-50-7	27.048	93.300	% Recov	59.000	115.000				09/17/07
MSD	2-Chlorophenol	95-57-8	26.492	91.400	% Recov	69.000	111.000				09/17/07
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	17.249	89.300	% Recov	69.000	115.000				09/17/07
MSD	2-Fluorobiphenyl(Surr)	321-60-8	14.579	75.400	% Recov	58.000	109.000				09/17/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071603
Matrix: WATER
Test: SW-846 8270C Semi-Vols

Sample Date: 09/09/07
Receive Date:09/10/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Phenol	108-95-2	27.906	96.300	% Recov	59.000	115.000				09/17/07
MSD	Nitrobenzene-d5(Surr)	4165-60-0	17.700	91.600	% Recov	60.000	118.000				09/17/07
MSD	4-Nitrophenol	100-02-7	26.630	91.900	% Recov	32.000	130.000				09/17/07
MSD	Pentachlorophenol	87-86-5	27.707	95.600	% Recov	51.000	121.000				09/17/07
MSD	Phenol-d5(Surr)	4165-62-2	18.302	94.700	% Recov	59.000	116.000				09/17/07
MSD	Pyrene	129-00-0	17.832	92.300	% Recov	58.000	116.000				09/17/07
MSD	2,4,6-Tribromophenol(Surr)	118-79-6	17.930	92.800	% Recov	60.000	120.000				09/17/07
MSD	Terphenyl-d14(Surr)	98904-43-9	17.698	91.600	% Recov	60.000	120.000				09/17/07
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	87.600		RPD			3.697	25.000		09/17/07
SPK-RPD	1,4-Dichlorobenzene	106-46-7	87.400		RPD			3.485	25.000		09/17/07
SPK-RPD	2,4-Dinitrotoluene	121-14-2	88.400		RPD			2.237	25.000		09/17/07
SPK-RPD	2-Fluorophenol(Surr)	367-12-4	92.700		RPD			0.758	25.000		09/17/07
SPK-RPD	Acenaphthene	83-32-9	93.100		RPD			4.503	25.000		09/17/07
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	93.300		RPD			2.386	25.000		09/17/07
SPK-RPD	2-Chlorophenol	95-57-8	91.400		RPD			1.520	25.000		09/17/07
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	89.300		RPD			0.558	25.000		09/17/07
SPK-RPD	2-Fluorobiphenyl(Surr)	321-60-8	75.400		RPD			15.422	25.000		09/17/07
SPK-RPD	Phenol	108-95-2	96.300		RPD			1.033	16.000		09/17/07
SPK-RPD	Nitrobenzene-d5(Surr)	4165-60-0	91.600		RPD			3.011	25.000		09/17/07
SPK-RPD	4-Nitrophenol	100-02-7	91.900		RPD			2.534	25.000		09/17/07
SPK-RPD	Pentachlorophenol	87-86-5	95.600		RPD			0.630	25.000		09/17/07
SPK-RPD	Phenol-d5(Surr)	4165-62-2	94.700		RPD			1.468	25.000		09/17/07
SPK-RPD	Pyrene	129-00-0	92.300		RPD			9.535	25.000		09/17/07
SPK-RPD	2,4,6-Tribromophenol(Surr)	118-79-6	92.800		RPD			0.323	25.000		09/17/07
SPK-RPD	Terphenyl-d14(Surr)	98904-43-9	91.600		RPD			4.350	25.000		09/17/07
SURR	2-Fluorophenol(Surr)	367-12-4	18.591	96.200	% Recov	50.000	110.000				09/17/07
SURR	2-Fluorobiphenyl(Surr)	321-60-8	17.269	89.400	% Recov	58.000	109.000				09/17/07
SURR	Nitrobenzene-d5(Surr)	4165-60-0	18.745	97.000	% Recov	60.000	118.000				09/17/07
SURR	Phenol-d5(Surr)	4165-62-2	18.248	94.400	% Recov	59.000	116.000				09/17/07
SURR	2,4,6-Tribromophenol(Surr)	118-79-6	18.139	93.900	% Recov	60.000	120.000				09/17/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071603
Matrix: WATER
Test: SW-846 8270C Semi-Vols

Sample Date: 09/09/07
Receive Date:09/10/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SURR	Terphenyl-d14(Surr)	98904-43-9	12.100	62.600	% Recov	60.000	120.000				09/17/07
BATCH QC											
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 2.2	n/a	ug/L					U	09/17/07
BLANK	1,4-Dichlorobenzene	106-46-7	< 1.4	n/a	ug/L					U	09/17/07
BLANK	2,4-Dichlorophenol	120-83-2	< 0.50	n/a	ug/L					U	09/17/07
BLANK	2,4-Dinitrotoluene	121-14-2	< 0.50	n/a	ug/L					U	09/17/07
BLANK	2-Fluorophenol(Surr)	367-12-4	17.258	86.300	% Recov	50.000	110.000				09/17/07
BLANK	2-Methylphenol (cresol, o-)	95-48-7	< 0.50	n/a	ug/L					U	09/17/07
BLANK	2-Nitrophenol	88-75-5	< 0.50	n/a	ug/L					U	09/17/07
BLANK	2-Picoline	109-06-8	< 5.0	n/a	ug/L					U	09/17/07
BLANK	3 & 4 Methylphenol Total	65794-96-9	< 0.50	n/a	ug/L	0.000	5.000			U	09/17/07
BLANK	Acenaphthene	83-32-9	< 2.6	n/a	ug/L					U	09/17/07
BLANK	Bis(2-ethylhexyl) phthalate	117-81-7	< 0.80	n/a	ug/L					U	09/17/07
BLANK	Benzothiazole	95-16-9	< 0.60	n/a	ug/L	0.000	300.000			U	09/17/07
BLANK	4-Chloro-3-methylphenol	59-50-7	< 0.50	n/a	ug/L					U	09/17/07
BLANK	2-Chlorophenol	95-57-8	< 0.50	n/a	ug/L					U	09/17/07
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 0.60	n/a	ug/L					U	09/17/07
BLANK	2-Fluorobiphenyl(Surr)	321-60-8	15.637	78.200	% Recov	58.000	109.000				09/17/07
BLANK	Phenol	108-95-2	< 0.50	n/a	ug/L					U	09/17/07
BLANK	Naphthalene	91-20-3	< 2.1	n/a	ug/L					U	09/17/07
BLANK	Nitrobenzene-d5(Surr)	4165-60-0	18.192	91.000	% Recov	60.000	118.000				09/17/07
BLANK	4-Nitrophenol	100-02-7	< 1.0	n/a	ug/L					U	09/17/07
BLANK	Pentachlorophenol	87-86-5	< 1.5	n/a	ug/L					U	09/17/07
BLANK	Phenol-d5(Surr)	4165-62-2	17.391	87.000	% Recov	59.000	116.000				09/17/07
BLANK	Pyrene	129-00-0	< 0.50	n/a	ug/L					U	09/17/07
BLANK	Tris-2-chloroethyl phosphate	115-96-8	< 0.65	n/a	ug/L	0.000	300.000			U	09/17/07
BLANK	Tributyl phosphate	126-73-8	< 0.50	n/a	ug/L					U	09/17/07
BLANK	2,4,6-Tribromophenol(Surr)	118-79-6	16.112	80.600	% Recov	60.000	120.000				09/17/07
BLANK	Terphenyl-d14(Surr)	98904-43-9	16.136	80.700	% Recov	60.000	120.000				09/17/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071603
Matrix: WATER
Test: SW-846 8270C Semi-Vols

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	1,2,4-Trichlorobenzene	120-82-1	17.551	87.800	% Recov	46.000	107.000				09/17/07
LCS	1,4-Dichlorobenzene	106-46-7	16.571	82.900	% Recov	42.000	111.000				09/17/07
LCS	2,4-Dinitrotoluene	121-14-2	18.216	91.100	% Recov	59.000	106.000				09/17/07
LCS	2-Fluorophenol(Surr)	367-12-4	18.924	94.600	% Recov	50.000	110.000				09/17/07
LCS	Acenaphthene	83-32-9	19.007	95.000	% Recov	61.000	116.000				09/17/07
LCS	4-Chloro-3-methylphenol	59-50-7	27.596	92.000	% Recov	61.000	106.000				09/17/07
LCS	2-Chlorophenol	95-57-8	28.196	94.000	% Recov	66.000	106.000				09/17/07
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	18.536	92.700	% Recov	71.000	114.000				09/17/07
LCS	2-Fluorobiphenyl(Surr)	321-60-8	17.886	89.400	% Recov	58.000	109.000				09/17/07
LCS	Phenol	108-95-2	28.624	95.400	% Recov	67.000	105.000				09/17/07
LCS	Nitrobenzene-d5(Surr)	4165-60-0	18.968	94.800	% Recov	60.000	118.000				09/17/07
LCS	4-Nitrophenol	100-02-7	24.160	80.500	% Recov	32.000	118.000				09/17/07
LCS	Pentachlorophenol	87-86-5	26.051	86.800	% Recov	62.000	114.000				09/17/07
LCS	Phenol-d5(Surr)	4165-62-2	19.492	97.500	% Recov	59.000	116.000				09/17/07
LCS	Pyrene	129-00-0	18.674	93.400	% Recov	66.000	118.000				09/17/07
LCS	2,4,6-Tribromophenol(Surr)	118-79-6	18.400	92.000	% Recov	60.000	120.000				09/17/07
LCS	Terphenyl-d14(Surr)	98904-43-9	18.533	92.700	% Recov	60.000	120.000				09/17/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071603
Matrix: WATER
Test: VOA Ground Water Protection

Sample Date: 09/06/07
Receive Date:09/06/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07P001726											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	1,1-Dichloroethene	75-35-4	28.110	112.000	% Recov	63.000	117.000				09/19/07
MS	Benzene	71-43-2	24.550	98.200	% Recov	75.000	129.000				09/19/07
MS	4-Bromofluorobenzene(Surr)	460-00-4	48.400	96.800	% Recov	75.000	125.000				09/19/07
MS	Chlorobenzene	108-90-7	26.640	107.000	% Recov	79.000	119.000				09/19/07
MS	1,2-Dichloroethane-d4(Surr)	17060-07-0	51.250	102.000	% Recov	75.000	125.000				09/19/07
MS	Toluene-d8(Surr)	2037-26-5	45.480	91.000	% Recov	75.000	125.000				09/19/07
MS	Toluene	108-88-3	26.720	107.000	% Recov	76.000	120.000				09/19/07
MS	Trichloroethene	79-01-6	22.580	90.300	% Recov	73.000	123.000				09/19/07
MSD	1,1-Dichloroethene	75-35-4	27.480	110.000	% Recov	63.000	117.000				09/19/07
MSD	Benzene	71-43-2	24.460	97.800	% Recov	75.000	129.000				09/19/07
MSD	4-Bromofluorobenzene(Surr)	460-00-4	47.620	95.200	% Recov	75.000	125.000				09/19/07
MSD	Chlorobenzene	108-90-7	26.510	106.000	% Recov	79.000	119.000				09/19/07
MSD	1,2-Dichloroethane-d4(Surr)	17060-07-0	52.090	104.000	% Recov	75.000	125.000				09/19/07
MSD	Toluene-d8(Surr)	2037-26-5	45.850	91.700	% Recov	75.000	125.000				09/19/07
MSD	Toluene	108-88-3	26.450	106.000	% Recov	76.000	120.000				09/19/07
MSD	Trichloroethene	79-01-6	22.370	89.500	% Recov	73.000	123.000				09/19/07
SPK-RPD	1,1-Dichloroethene	75-35-4	110.000		RPD			1.802	20.000		09/19/07
SPK-RPD	Benzene	71-43-2	97.800		RPD			0.408	20.000		09/19/07
SPK-RPD	Chlorobenzene	108-90-7	106.000		RPD			0.939	20.000		09/19/07
SPK-RPD	1,2-Dichloroethane-d4(Surr)	17060-07-0	104.000		RPD			1.942	20.000		09/19/07
SPK-RPD	Toluene-d8(Surr)	2037-26-5	91.700		RPD			0.766	20.000		09/19/07
SPK-RPD	Toluene	108-88-3	106.000		RPD			0.939	20.000		09/19/07
SPK-RPD	Trichloroethene	79-01-6	89.500		RPD			0.890	20.000		09/19/07

Lab ID: W07P001794
BATCH QC ASSOCIATED WITH SAMPLE

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071603
Matrix: WATER
Test: VOA Ground Water Protection

Sample Date: 09/09/07
Receive Date:09/10/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SURR	4-Bromofluorobenzene(Surr)	460-00-4	48.970	97.900	% Recov	75.000	125.000				09/19/07
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	54.770	110.000	% Recov	75.000	125.000				09/19/07
SURR	Toluene-d8(Surr)	2037-26-5	47.320	94.600	% Recov	75.000	125.000				09/19/07
Lab ID: W07P001840											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	48.230	96.500	% Recov	75.000	125.000				09/19/07
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	52.940	106.000	% Recov	75.000	125.000				09/19/07
SURR	Toluene-d8(Surr)	2037-26-5	46.820	93.600	% Recov	75.000	125.000				09/19/07
BATCH QC											
BLANK	1,1-Dichloroethane	75-34-3	< 1.0	n/a	ug/L					U	09/18/07
BLANK	1,1,1-Trichloroethane	71-55-6	< 1.0	n/a	ug/L					U	09/18/07
BLANK	1,1,2-Trichloroethane	79-00-5	< 1.0	n/a	ug/L					U	09/18/07
BLANK	1,1-Dichloroethene	75-35-4	< 1.0	n/a	ug/L					U	09/18/07
BLANK	1,2-Dichloroethane	107-06-2	< 1.0	n/a	ug/L					U	09/18/07
BLANK	1,4-Dichlorobenzene	106-46-7	< 1.0	n/a	ug/L					U	09/18/07
BLANK	1-Butanol	71-36-3	< 100	n/a	ug/L					U	09/18/07
BLANK	4-Methyl-2-Pentanone	108-10-1	< 1.0	n/a	ug/L					U	09/18/07
BLANK	Acetone	67-64-1	< 1.0	n/a	ug/L					U	09/18/07
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/L					U	09/18/07
BLANK	4-Bromofluorobenzene(Surr)	460-00-4	49.110	98.200	% Recov	75.000	125.000				09/18/07
BLANK	Carbon disulfide	75-15-0	< 1.0	n/a	ug/L					U	09/18/07
BLANK	Carbon tetrachloride	56-23-5	< 1.0	n/a	ug/L					U	09/18/07
BLANK	Chloroform	67-66-3	< 1.0	n/a	ug/L					U	09/18/07
BLANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/L					U	09/18/07
BLANK	cis-1,2-Dichloroethylene	156-59-2	< 1.0	n/a	ug/L					U	09/18/07
BLANK	1,2-Dichloroethane-d4(Surr)	17060-07-0	53.680	107.000	% Recov	75.000	125.000				09/18/07
BLANK	trans-1,2-Dichloroethylene	156-60-5	< 1.0	n/a	ug/L					U	09/18/07
BLANK	Ethylbenzene	100-41-4	< 1.0	n/a	ug/L					U	09/18/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071603
Matrix: WATER
Test: VOA Ground Water Protection

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Ethyl cyanide	107-12-0	< 2.0	n/a	ug/L					U	09/18/07
BLANK	2-Butanone	78-93-3	< 1.0	n/a	ug/L					U	09/18/07
BLANK	Methylenechloride	75-09-2	< 1.0	n/a	ug/L					U	09/18/07
BLANK	Tetrachloroethene	127-18-4	< 1.0	n/a	ug/L					U	09/18/07
BLANK	Xylenes (total)	1330-20-7	< 1.0	n/a	ug/L	0.000	5.000			U	09/18/07
BLANK	Tetrahydrofuran	109-99-9	< 2.0	n/a	ug/L					U	09/18/07
BLANK	Toluene-d8(Surr)	2037-26-5	46.240	92.500	% Recov	75.000	125.000				09/18/07
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/L					U	09/18/07
BLANK	Trichloroethene	79-01-6	< 1.0	n/a	ug/L					U	09/18/07
BLANK	Vinyl chloride	75-01-4	< 1.0	n/a	ug/L					U	09/18/07
LCS	1,1-Dichloroethene	75-35-4	28.010	112.000	% Recov	75.000	125.000				09/19/07
LCS	Benzene	71-43-2	25.000	100.000	% Recov	75.000	125.000				09/19/07
LCS	4-Bromofluorobenzene(Surr)	460-00-4	47.510	95.000	% Recov	75.000	125.000				09/19/07
LCS	Chlorobenzene	108-90-7	26.200	105.000	% Recov	75.000	125.000				09/19/07
LCS	1,2-Dichloroethane-d4(Surr)	17060-07-0	53.130	106.000	% Recov	75.000	125.000				09/19/07
LCS	Toluene-d8(Surr)	2037-26-5	46.270	92.500	% Recov	75.000	125.000				09/19/07
LCS	Toluene	108-88-3	26.960	108.000	% Recov	75.000	125.000				09/19/07
LCS	Trichloroethene	79-01-6	21.770	87.100	% Recov	75.000	125.000				09/19/07

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001796
Client ID: B1PJJ3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Radiochemistry
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		120	pCi/L	+-24.0	pCi/L	1.00	4.4		09/20/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

Report WGPP/ver. 5.2
GPAP

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001812
Client ID: B1PJK5 PNNL-GPP WSCF
Matrix: WATER

Group #: WSCF20071603
Department: Radiochemistry
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		5.40e+03	pCi/L	+-1.08e+03	pCi/L	1.00	4.4		09/20/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001813
Client ID: B1PJL7 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Radiochemistry
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		1.00e+04	pCi/L	+-2.00e+03	pCi/L	1.00	4.4		09/20/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001814
Client ID: B1PJB4 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Radiochemistry
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		390	pCi/L	+-78.0	pCi/L	1.00	4.4		09/20/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001815
Client ID: B1PJC7 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Radiochemistry
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		3.50e+03	pCi/L	+-700	pCi/L	1.00	4.4		09/20/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001816
Client ID: B1PJJ7 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Radiochemistry
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		880	pCi/L	+-176	pCi/L	1.00	4.2		10/01/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001817
Client ID: B1PJK1 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Radiochemistry
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		72.0	pCi/L	+-14.4	pCi/L	1.00	4.2		10/01/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001818
Client ID: B1PJL3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Radiochemistry
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		100	pCi/L	+-20.0	pCi/L	1.00	4.2		10/01/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001819
Client ID: B1PJP5 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Radiochemistry
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		870	pCi/L	+-174	pCi/L	1.00	4.2		10/01/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(Inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001820
Client ID: B1PJR0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Radiochemistry
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		63.0	pCi/L	+-13.2	pCi/L	1.00	4.2		10/01/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

Report WGPP/ver. 5.2
GPAP

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001821
Client ID: B1PJP2 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Radiochemistry
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		710	pCi/L	+-142	pCi/L	1.00	4.2		10/01/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001822
Client ID: B1PJH2 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Radiochemistry
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		2.30e+03	pCi/L	+-460	pCi/L	1.00	4.2		10/01/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001823
Client ID: B1PJR3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Radiochemistry
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421	U	3.90	pCi/L	+-2.73	pCi/L	1.00	4.2		10/01/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001824
Client ID: B1PJN9 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Radiochemistry
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		140	pCi/L	+-28.0	pCi/L	1.00	4.2		10/01/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001825
Client ID: B1PJF0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Radiochemistry
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		190	pCi/L	+-38.0	pCi/L	1.00	4.2		10/01/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P001826
Client ID: B1PJK9 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Radiochemistry
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		3.10e+03	pCi/L	+-620	pCi/L	1.00	4.2		10/01/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S07-009
Sample # W07P001840
Client ID: B1PFT3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20071603
Department: Radiochemistry
Sampled: 09/09/07
Received: 09/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Plutonium Isotopics by AEA											
Plutonium-238	13981-16-3	LA-508-471	U	0.0130	pCi/L	+-0.106	pCi/L	1.00	0.19		10/09/07
Pu-239/240 by AEA	PU-239/240	LA-508-471	U	-6.50e-03	pCi/L	+-0.0226	pCi/L	1.00	0.060		10/09/07
Pu-242 tracer by AEA	PU242	LA-508-471		16.0	pCi/L			1.00	0.048		10/09/07
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		24.0	pCi/L	+-5.52	pCi/L	1.00	4.2		10/01/07
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421	U	19.0	pCi/L	+-84.9	pCi/L	1.00	2.1e+02		10/04/07

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

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

C - The Analyte was found in the Associated Blank.(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

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

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20071603
Matrix: WATER
Test: Tritium by Liq Sct column prep

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

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07P001780											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Tritium	10028-17-8	U6.9E+01		RPD			n/a	20.000		10/04/07
MS	Tritium	10028-17-8	15508.6	91.675	% Recov	75.000	125.000				10/04/07
BATCH QC											
BLANK	Tritium	10028-17-8	U-1.9E+01	n/a	pCi/L	-10.000	1000.000				10/04/07
LCS	Tritium	10028-17-8	2450.0	95.845	% Recov	80.000	120.000				10/04/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20071603
Matrix: WATER
Test: Plutonium Isotopics by AEA

Sample Date: 09/09/07
Receive Date:09/10/07

Lab ID: W07P001840

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
DUP	Plutonium-238	13981-16-3	U8e-2		RPD			n/a	20.000		10/09/07
DUP	Pu-239/240 by AEA	PU-239/240	U4.7e-3		RPD			n/a	20.000		10/09/07
DUP	Pu-242 tracer by AEA	PU242	90.9	90.900	% Recov	30.000	105.000				10/09/07

BATCH QC

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Plutonium-238	13981-16-3	U2.3e-2	n/a	pCi/L	-10.000	1000.000				10/09/07
BLANK	Pu-239/240 by AEA	PU-239/240	U4.6e-3	n/a	pCi/L	-10.000	1000.000				10/09/07
BLANK	Pu-242 tracer by AEA	PU242	94.48	94.480	% Recov	30.000	105.000				10/09/07
LCS	Pu-239/240 by AEA	PU-239/240	12.64	98.404	% Recov	80.000	120.000				10/09/07
LCS	Pu-242 tracer by AEA	PU242	94.63	94.630	% Recov	30.000	105.000				10/09/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Radiochemistry**

SDG Number: WSCF20071603
Matrix: WATER
Test: TC99 by Liquid Scin.

Sample Date: 09/04/07
Receive Date:09/04/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07P001663											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Technetium-99	14133-76-7	6.8E+02		RPD			1.460	20.000		09/20/07
MS	Technetium-99	14133-76-7	207.3	127.805	% Recov	75.000	125.000				09/20/07
BATCH QC											
BLANK	Technetium-99	14133-76-7	U-5.7	n/a	pCi/L	-10.000	10.000				09/20/07
LCS	Technetium-99	14133-76-7	205.7	101.480	% Recov	80.000	120.000				09/20/07
Lab ID: W07P001816											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Technetium-99	14133-76-7	909.0		RPD			3.812	20.000		10/01/07
MS	Technetium-99	14133-76-7	202.4	124.784	% Recov	75.000	125.000				10/01/07
BATCH QC											
BLANK	Technetium-99	14133-76-7	U-2.2	n/a	pCi/L	-10.000	10.000				10/01/07
LCS	Technetium-99	14133-76-7	205.8	101.529	% Recov	80.000	120.000				10/01/07

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent E6-35

Group #: WSCF20071603
Department: Radiochemistry

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-MS: Aluminum and Thallium prep blank results above the MDL. Sample results for thallium below the MDL. No flag Aluminum results "C" flagged Sample W07-1796 spiked, but Aluminum, Arsenic and Thallium were not requested on this sample. SPIKE RECOVERIES AND RPDs Analyte MS %Rec MSD %Rec % RPD Aluminum 85 86 1.2 Arsenic 88 85 3.5 Thallium 102 102 0 Raw instrument data contains the information on the spikes. W07P001796,1812-15/Tc99 batch matrix spike recovery is flagged for being slightly out of limits. The sample activity was high in relation to the spike acitivity. All other QC was acceptable so this batch has been approved. ICP-AES: [Samples W07P1795-1814] High barium, chromium, manganese, nickel, silver, vanadium, zinc, iron, magnesium, cobalt, and copper preparation blank results; "C" flag if applicable. Magnesium, sodium, and calcium sample results beyond effective spike range (spike results marked "NA"). Check and high standards used to ensure magnesium, sodium,

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

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

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent E6-35

Group #: WSCF20071603
Department: Radiochemistry

Sample #	Client ID	Lab Area	Test	Comment
				and calcium linearity because sample results are greater than the calibration standard. ICP-AES: [Samples W07P1816-1840] High barium, chromium, manganese, nickel, silver, vanadium, zinc, magnesium, cobalt, and copper preparation blank results; "C" flag if applicable. Magnesium, sodium, and calcium sample results beyond effective spike range (spike results marked "NA"). Check and high standards used to ensure magnesium, sodium, and calcium linearity because sample results are greater than the calibration standard.

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

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

M4W41-SLF-07-769

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 23 pages
Including cover page

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

File
10/25/07

ACKNOWLEDGMENT OF SAMPLES RECEIVED

GPAP

Richland, WA 99352
Attn: Steve Trent E6-35

Customer Code: PNNL-GPP
PO#: 122543
Group#: 20071603

The following samples were received from you on 09/10/07. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

Sample#	Sample Id	Tests Scheduled	Matrix	Sample Date
W07P001794	B1PBK2	PNNL-GPP @VOA-GPP	Water	09/09/07
W07P001795	B1PJJ2	PNNL-GPP @GPP6010	Water	09/09/07
W07P001796	B1PJJ3	PNNL-GPP @2008 @GPP6010 @IC-30 @TC99-30 ALKALI CN-02	Water	09/09/07
W07P001797	B1PJK4	PNNL-GPP @GPP6010	Water	09/09/07
W07P001798	B1PJL6	PNNL-GPP @GPP6010	Water	09/09/07
W07P001799	B1PJB3	PNNL-GPP @GPP6010	Water	09/09/07
W07P001800	B1PJC6	PNNL-GPP @GPP6010	Water	09/09/07
W07P001801	B1PJJ6	PNNL-GPP @GPP6010	Water	09/09/07
W07P001802	B1PJK0	PNNL-GPP @GPP6010	Water	09/09/07
W07P001803	B1PJL2	PNNL-GPP @GPP6010	Water	09/09/07
W07P001804	B1PJP4	PNNL-GPP @GPP6010	Water	09/09/07
W07P001805	B1PJP9	PNNL-GPP @GPP6010	Water	09/09/07
W07P001806	B1PJP1	PNNL-GPP @GPP6010	Water	09/09/07
W07P001807	B1PJH1	PNNL-GPP @GPP6010	Water	09/09/07
W07P001808	B1PJR2	PNNL-GPP @GPP6010	Water	09/09/07

GPAP

Richland, WA 99352
Attn: Steve Trent E6-35

Customer Code: PNNL-GPP
PO#: 122543
Group#: 20071603

Sample#	Sample Id	Tests Scheduled	Matrix	Sample Date
W07P001809	B1PJN8	PNNL-GPP @GPP6010	Water	09/09/07
W07P001810	B1PJD9	PNNL-GPP @GPP6010	Water	09/09/07
W07P001811	B1PJK8	PNNL-GPP @GPP6010	Water	09/09/07
W07P001812	B1PJK5	PNNL-GPP @2008 @GPP6010 @IC-30 @TC99-30 ALKALI CN-02	Water	09/09/07
W07P001813	B1PJL7	PNNL-GPP @GPP6010 @IC-30 @TC99-30 ALKALI	Water	09/09/07
W07P001814	B1PJB4	PNNL-GPP @GPP6010 @IC-30 @TC99-30 ALKALI	Water	09/09/07
W07P001815	B1PJC7	PNNL-GPP @GPP6010 @IC-30 @TC99-30 ALKALI	Water	09/09/07
W07P001816	B1PJJ7	PNNL-GPP @2008 @GPP6010 @IC-30 @TC99-30 ALKALI CN-02	Water	09/09/07
W07P001817	B1PJK1	PNNL-GPP @2008 @GPP6010 @IC-30 @TC99-30 ALKALI CN-02	Water	09/09/07
W07P001818	B1PJL3	PNNL-GPP @2008 @GPP6010 @IC-30 @TC99-30 ALKALI CN-02	Water	09/09/07
W07P001819	B1PJP5	PNNL-GPP @GPP6010 @IC-30 @TC99-30 ALKALI	Water	09/09/07
W07P001820	B1PJR0	PNNL-GPP @GPP6010 @IC-30 @TC99-30 ALKALI	Water	09/09/07
W07P001821	B1PJP2	PNNL-GPP @GPP6010 @IC-30 @TC99-30 ALKALI	Water	09/09/07
W07P001822	B1PJH2	PNNL-GPP @2008 @GPP6010 @IC-30 @TC99-30 ALKALI CN-02	Water	09/09/07
W07P001823	B1PJR3	PNNL-GPP @GPP6010 @IC-30 @TC99-30 ALKALI	Water	09/09/07
W07P001824	B1PJN9	PNNL-GPP @GPP6010 @IC-30 @TC99-30 ALKALI	Water	09/09/07
W07P001825	B1PJF0	PNNL-GPP @GPP6010 @IC-30 @TC99-30 ALKALI	Water	09/09/07
W07P001826	B1PJK9	PNNL-GPP @2008 @GPP6010 @IC-30 @TC99-30 ALKALI CN-02	Water	09/09/07

GPAP

Richland, WA 99352
Attn: Steve Trent E6-35

Customer Code: PNNL-GPP
PO#: 122543
Group#: 20071603

Sample#	Sample Id	Tests Scheduled	Matrix	Sample Date
W07P001827	B1PJ97	PNNL-GPP TOC-30	Water	09/09/07
W07P001828	B1PJ98	PNNL-GPP TOC-30	Water	09/09/07
W07P001829	B1PJ99	PNNL-GPP TOC-30	Water	09/09/07
W07P001830	B1PJB0	PNNL-GPP TOC-30	Water	09/09/07
W07P001831	B1PJC0	PNNL-GPP TOC-30	Water	09/09/07
W07P001832	B1PJC1	PNNL-GPP TOC-30	Water	09/09/07
W07P001833	B1PJC2	PNNL-GPP TOC-30	Water	09/09/07
W07P001834	B1PJC3	PNNL-GPP TOC-30	Water	09/09/07
W07P001835	B1PJD3	PNNL-GPP TOC-30	Water	09/09/07
W07P001836	B1PJD4	PNNL-GPP TOC-30	Water	09/09/07
W07P001837	B1PJD5	PNNL-GPP TOC-30	Water	09/09/07
W07P001838	B1PJD6	PNNL-GPP TOC-30	Water	09/09/07
W07P001839	B1PFT2	PNNL-GPP @2008 @GPP6010 CR+6	Water	09/09/07
W07P001840	B1PFT3	PNNL-GPP @2008 @AEA-30 @GPP6010 @H3-33 @IC-30 @SVOCGPP @TC99-30 @VOA-GPP CN-02	Water	09/09/07

Test Acronym Description

Test Acronym	Description
@2008	ICP-200.8 MS All possible meta
@AEA-30	Plutonium Isotopics by AEA
@GPP6010	ICP Metals Analysis, Grd H20 P
@H3-33	Tritium by Liq Sct column prep
@IC-30	Anions by Ion Chromatography
@SVOCGPP	SW-846 8270C Semi-Vols
@TC99-30	TC99 by Liquid Scin.
@VOA-GPP	VOA Ground Water Protection
ALKALI	Total Alkalinity as mg/L CaCO3
CN-02	Cyanide by Midi/Spectrophotom
CR+6	Hexavalent chromium

GPAP

Richland, WA 99352
Attn: Steve Trent E6-35

Customer Code: PNNL-GPP
PO#: 122543
Group#: 20071603

Test Acronym Description

Test Acronym	Description
TOC-30	Total Organic Carbon

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

10/25/07 20071603

C.O.C. # S07-008-47

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. S07-008	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV. AUGUST 2007	Logbook: HNF-N-506-9	**Ice Chest No.** 6W-1 **Temp.**
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
All SDG?s are to be sent to Steve Trent, FH

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PBK2 W07P001794		W	9/9/07	1119	4x40-mL aGs*	8260_VOA_GCMS: List-2 (25)	HCl or H2SO4 to pH <2 Cool~4C
B1PBK2		W	↓	↓	1x20-mL P	Activity Scan	None

R. Wall 9/9/07

ICED Initial Date

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			9/10/07 0800	KB Hulse			9/10/07 0800
KB Hulse			9/10/07 0900				9/10/07 0900
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20071603

C.O.C. # W07-009-188

Collector: F. H. Hall, Fluor Hanford Inc	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: W07-009	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: RCRA, SEPTEMBER 2007	HNF-N-506 8	Ice Chest No. Temp.
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
All SDG?s are to be sent to Steve Trent, FH

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PJJ2 (F)	1795	W	9/9/07	0909	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJJ3	1796	W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1PJJ3		W			1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2
B1PJJ3		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJJ3		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1PJJ3		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2
B1PJJ3		W			1x250-mL G/P	335.2_CYANIDE: Cyanide (1)	NaOH to pH >= 12 Cool~4C

ICED
Initial
Date

Relinquished By	Received By
F. H. Hall, Fluor Hanford Inc — Print — Sign — Date/Time 9/10/07 0800	KB Hulse — Print — Sign — Date/Time 9/10/07 0800
KB Hulse — Sign — Date/Time 9/10/07 0900	Sign — Date/Time 9/10/07 0900
Relinquished By — Date/Time	Received By — Date/Time
Relinquished By — Date/Time	Received By — Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

FLUOR HANFORD

Fluor Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20071603

Chain of Custody #: W07-009-206

Collector: R. T. SICKLE	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: W07-009	Sampling Origin: Hanford Site	Purchase Order/Charge Code: GW-1
Project Title: RCRA, SEPTEMBER 2007	Logbook: HNF-N-506-9	Ice Chest No.: ~~WM~~ + GW. Temp: 9/9/07
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
All SDG?s are to be sent to Steve Trent, FH

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PJK4 (F)	1797	W	9/9/07	0832	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJK5	1812	W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1PJK5		W			1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2
B1PJK5		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJK5		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1PJK5		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2
B1PJK5		W			1x250-mL G/P	335.2_CYANIDE: Cyanide (1)	NaOH to pH >= 12 Cool~4C

A. Wall 9/9/07

ICED
Initial
Date

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			9-10-07 0800 ~~SEP 09 2007~~	KB Hulse		KB Hulse	9-10-07 0800 ~~SEP 09 2007~~
KB Hulse		KB Hulse	9-10-07 0910	[illegible]		[illegible]	9/10/07 0900

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

148 of 1603

FLUOR HANFORD

Fluor Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20071603

C.O.C.#

W07-009-250

Collector R. T. SICKLE	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. W07-009	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, SEPTEMBER 2007	Logbook: HNF-N-506-9	**Ice Chest No.** GW-1 **Temp.**
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.

WSCF: Batch all GW samples submitted into one SDG, daily closure.

All SDG?s are to be sent to Steve Trent, FH

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PJL6 (F)	1798	W	9/9/07	1256	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJL7	1813	W	↓	↓	1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1PJL7	↓	W	↓	↓	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJL7	↓	W	↓	↓	1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1PJL7	↓	W	↓	↓	1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2

L. Wade

ICED Initial Date

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			9-10-07 0800	KB Hulse			9-10-07 0800
KB Hulse			9/10/07 0900				9/10/07 0900

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20071603

C.O.C. # W07-009-148

Page 1 of 1

Collector: F. H. Hall, Fluor Hanford Inc	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: W07-009	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: RCRA, SEPTEMBER 2007	HNF-N-502 8	Ice Chest No. Temp.
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
All SDG?s are to be sent to Steve Trent, FH

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PJ97	1827	W	9/9/07	0959	1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1PJ98	1828	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1PJ99	1829	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1PJB0	1830	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1PJB3 (F)	1799	W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJB4	1815	W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1PJB4		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJB4		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1PJB4		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2

ICED
Initial
Date

Relinquished By	Received By
Print: F. H. Hall, Fluor Hanford Inc; Sign: [signature]; Date/Time: 9-10-07 0800	Print: KB Hulse; Sign: [signature]; Date/Time: 9-10-07 0800
Print: KB Hulse; Sign: [signature]; Date/Time: 9-10-07 0800	Sign: [signature]; Date/Time: 9/10/07 0900
Relinquished By: Date/Time:	Received By: Date/Time:
Relinquished By: Date/Time:	Received By: Date/Time:

Matrix *

S	= Soil	DS	= Drum Solid
SE	= Sediment	DL	= Drum Liqui
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wine
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

150 of 463

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20071603

C.O.C. # W07-009-156

Collector: F. H. Hall, Fluor Hanford Inc	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: W07-009	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: RCRA, SEPTEMBER 2007	HNF-N-506 8	Ice Chest No. Temp.
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
All SDG?s are to be sent to Steve Trent, FH

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PJC0	1831	W	9/9/07	1041	1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1PJC1	1832	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1PJC2	1833	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1PJC3	1834	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1PJC6 (F)	1800	W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJC7	1815	W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1PJC7		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJC7		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1PJC7		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2

ICED
Initial
Date

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
F. H. Hall, Fluor Hanford Inc			9-10-07 0800	KB Hulse			9-10-07 0800
KB Hulse			9-10-07 0800				9/10/07 9:00
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SF = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20071603

C.O.C. # W07-009-194

Page 1 of 1

Collector: F. H. Hall, Fluor Hanford Inc	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: W07-009	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: RCRA, SEPTEMBER 2007	HNF-N-506 8	Ice Chest No. Temp.
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
All SDG?s are to be sent to Steve Trent, FH

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PJJ6 (F)	1801	W	9/9/07	0759	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJJ7	1816	W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1PJJ7		W			1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2
B1PJJ7		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJJ7		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1PJJ7		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2
B1PJJ7		W			1x250-mL G/P	335.2_CYANIDE: Cyanide (1)	NaOH to pH >= 12 Cool~4C

ICED
Initial
Date

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
F. H. Hall, Fluor Hanford Inc			9-10-07 0800	KB Hulse		KB Hulse	9-10-07 0800
KB Hulse		KB Hulse	9-10-07 0900				9/10/07 0900

Matrix *

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

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20071603

C.O.C. # W07-009-200

Collector: Fluor Hanford R. T. SICKLE	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: W07-009	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: RCRA, SEPTEMBER 2007	Logbook: HNF-N-506-9	Ice Chest No.: GW-1 Temp.
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
All SDG?s are to be sent to Steve Trent, FH

Sample No.	Lab ID	•	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PJK0 (F)	1802	W	9/9/07	0925	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJK1	1817	W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1PJK1		W			1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2
B1PJK1		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJK1		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1PJK1		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2
B1PJK1		W			1x250-mL G/P	335.2_CYANIDE: Cyanide (1)	NaOH to pH >= 12 Cool~4C

J. Walls 9/9/07

ICED
Initial
Date

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			9-10-07 0800 SEP 09 2007	KB Hulse			9-10-07 0800 SEP 09 2007
KB Hulse			9-10-07 0900 SEP 09 2007				9/10/07 0900
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix •

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

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

FLUOR HANFORD

Fluor Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

2007 1603

C.O.C. # W07-009-218

Page 1 of 1

Collector: R. T. SICKLE	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: W07-009	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: RCRA, SEPTEMBER 2007	Logbook: HNF-N-506-9	Ice Chest No.: GW-1 Temp.
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐

All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
All SDG?s are to be sent to Steve Trent, FH

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PJL2 (F)	1803	W	9/9/07	1000	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJL3	1818	W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1PJL3		W			1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2
B1PJL3		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJL3		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1PJL3		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2
B1PJL3		W			1x250-mL G/P	335.2_CYANIDE: Cyanide (1)	NaOH to pH >= 12 Cool~4C

R. Wall 9/9/07

ICED
Initial
Date

Relinquished By	Received By
Fluor Hanford R. T. SICKLE Print; Sign 9-10-07; Date/Time 0800	KB Hulse Print; Sign 9-10-07; Date/Time 0800
SEP 09 2007	SEP 09 2007
KB Hulse 9-10-07 0900	9/10/07 0900
Relinquished By: Date/Time	Received By: Date/Time
Relinquished By: Date/Time	Received By: Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20071603

C.O.C. # W07-009-294

Page 1 of 1

Collector Steve Overdahl, Fluor Hanford	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. W07-009	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, SEPTEMBER 2007	HWF-N-106 7	**Ice Chest No.** SML 524 **Temp.**
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
All SDG?s are to be sent to Steve Trent, FH

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PJP4 (F)	1804	W	9-9-07	1105	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJP5	1819	W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1PJP5		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJP5		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1PJP5		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2

ICED
Initial
Date

Relinquished By	Received By
Steve Overdahl, Fluor Hanford — Print — Sign — Date/Time 9-10-07 0800	KB Hulse — Print — Sign — Date/Time 9-10-07 0800
KB Hulse — Date/Time 9-10-07 0900	Date/Time 9/10/07 0900
Relinquished By — Date/Time	Received By — Date/Time
Relinquished By — Date/Time	Received By — Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20071603

C.O.C. # W07-009-302

Page 1 of 1

Collector Steve Overdahl, Fluor Hanford	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: W07-009	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: RCRA, SEPTEMBER 2007	HNF-N-506 7	Ice Chest No.: SHL 524 Temp.
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
All SDG?s are to be sent to Steve Trent, FH

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PJP9 (F)	1805	W	9-4-07	0830	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJR0	1820	W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1PJR0		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJR0		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1PJR0		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2

ICED
Initial
Date

Relinquished By	Received By
Steve Overdahl, Fluor Hanford — Print / Sign — Date/Time 0800 10/09/2007 SEP 09 2007	KB Hulse — Print / Sign — Date/Time 9-10-07 0800
KB Hulse — Date/Time 9-10-07 0900	KB Hulse — Date/Time 9/10/07 0900
Relinquished By — Date/Time	Received By — Date/Time
Relinquished By — Date/Time	Received By — Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20071603

C.O.C. # W07-009-290

Page 1 of 1

Collector: Steve Overdahl, Fluor Hanford	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: W07-009	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: RCRA, SEPTEMBER 2007	HNF-N-506 7	Ice Chest No.: SWL 524 Temp.
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
All SDG?s are to be sent to Steve Trent, FH

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PJP1 (F)	1806	W	9-9-07	0939	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJP2	1821	W	↓	↓	1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1PJP2	↓	W	↓	↓	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJP2	↓	W	↓	↓	1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1PJP2	↓	W	↓	↓	1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2

ICED
Initial
Date

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
Steve Overdahl, Fluor Hanford	9-10-07 0800	KB Hulse	9-10-07 0800
KB Hulse	9-10-07 0900		09/10/07 0900

Matrix *

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

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

2W071603

C.O.C. # W07-009-176

Page 1 of 1

Collector: F. H. Hall, Fluor Hanford Inc	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: W07-009	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: RCRA, SEPTEMBER 2007	HNF-N-506 8	Ice Chest No. Temp.
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
All SDG?s are to be sent to Steve Trent, FH

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PJH1 (F)	1807	W	9/9/07	0834	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJH2	1822	W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1PJH2		W			1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2
B1PJH2		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJH2		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1PJH2		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2
B1PJH2		W			1x250-mL G/P	335.2_CYANIDE: Cyanide (1)	NaOH to pH >= 12 Cool~4C

ICED Initial Date

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
F. H. Hall, Fluor Hanford Inc			9-10-07 0800	KB Hulse		KB Hulse	9-10-07 0800
KB Hulse		KB Hulse	9-10-07 0900				9/10/07 0900

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

2007/603

C.O.C. # W07-009-306

Page 1 of 1

Collector Steve Overdahl, Fluor Hanford	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. W07-009	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, SEPTEMBER 2007	HNF-N-506 7	**Ice Chest No.** SML 524 **Temp.**
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
All SDG?s are to be sent to Steve Trent, FH

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PJR2 (F)	1808	W	9-9-07	1244	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJR3	1823	W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1PJR3		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJR3		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1PJR3		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2

ICED
Initial
Date

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Steve Overdahl, Fluor Hanford			9-10-07 0800	KB Hulse			9-10-07 0800
KB Hulse			9-10-07 0900	KB Bebo			09/10/07 0900

Matrix *

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

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20071603

C.O.C. # W07-009-286

Page 1 of 1

Collector: Steve Overdahl, Fluor Hanford	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: W07-009	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: RCRA, SEPTEMBER 2007	HNF-N-506 7	Ice Chest No.: Gull 524 Temp.
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐

All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
All SDG?s are to be sent to Steve Trent, FH

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PJN8 (F)	1809	W	9/9/07	1201	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJN9	1824	W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1PJN9		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJN9		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1PJN9		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2

ICED Initial Date

Relinquished By	Received By
Steve Overdahl, Fluor Hanford — Print / Sign — Date/Time 0800 9-10-07	KB Hulse — Print / Sign — Date/Time 0800 9-10-07
KB Hulse — Date/Time 0800 9-10-07	Date/Time 9/10/07 0900
Relinquished By — Date/Time	Received By — Date/Time
Relinquished By — Date/Time	Received By — Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

160 of 163

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20071603

C.O.C. # W07-009-164

Collector: F. H. Hall	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: W07-009 Fluor Hanford Inc	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: RCRA, SEPTEMBER 2007	HNF-N-5068	Ice Chest No. Temp.
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
All SDG?s are to be sent to Steve Trent, FH

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PJD3	1835	W	9/9/07	1234	1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1PJD4	1836	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1PJD5	1837	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1PJD6	1838	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1PJD9 (F)	1810	W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJF0	1825	W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1PJF0		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJF0		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1PJF0		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2

KB 9/10/07

ICED
KB Initial
Date

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
F. H. Hall, Fluor Hanford Inc			9-10-07 0800	KB Hulse			9-10-07 0800
KB Hulse			9-10-07 0900				09/10/07 0900
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

2007 1603

C.O.C. # W07-009-212

Collector: Fluor Hanford R. T. SICKLE	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: W07-009	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: RCRA, SEPTEMBER 2007	Logbook: HNF-N-506-9	Ice Chest No.: GW-1 Temp.
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
All SDG?s are to be sent to Steve Trent, FH

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PJK8 (F)	1811	W	9/9/07	0801	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJK9	18	W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1PJK9		W			1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2
B1PJK9		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PJK9		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1PJK9		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2
B1PJK9		W			1x250-mL G/P	335.2_CYANIDE: Cyanide (1)	NaOH to pH >= 12 Cool~4C

R. Wall 9/9/07

ICED Initial Date

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
Fluor Hanford R. T. SICKLE	SEP 09 2007 0800	KB Hulse	9-10-07 0800
KB Hulse	9-10-07 0800	K Baber	SEP 09 2007 9/10/07 0900
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20071603

C.O.C.# S07-009-74

Page 1 of 1

Collector: Fluor Hanford R. T. SICKLE	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: S07-009	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, SEPTEMBER 2007	Logbook: HNF-N-506-9	Ice Chest No.: GW-1 Temp.
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: SURV	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
All SDG?s are to be sent to Steve Trent, FH

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PFT2 (F)	1839	W	9/9/07	1119	1x500-mL G/P	200.8_METALS_ICPMS: Thallium (1); 200.8_METALS_ICPMS: Arsenic (1); 200.8_METALS_ICPMS: Aluminum (1)	HNO3 to pH <2
B1PFT2 (F)		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PFT2 (F)		W			1x500-mL aG	7196_CR6: Hexavalent Chromium (1)	Cool~4C
B1PFT3	1840	W			1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None
B1PFT3		W			1x500-mL G/P	200.8_METALS_ICPMS: Thallium (1); 200.8_METALS_ICPMS: Arsenic (1); 200.8_METALS_ICPMS: Aluminum (1)	HNO3 to pH <2
B1PFT3		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1PFT3		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1PFT3		W			4x40-mL aGs*	8260_VOA_GCMS: List-2 (25)	HCl or H2SO4 to pH <2 Cool~4C
B1PFT3		W			1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2
B1PFT3		W			1x250-mL G/P	335.2_CYANIDE: Cyanide (1)	NaOH to pH >= 12 Cool~4C
B1PFT3		W			1x1000-mL P	PUISO_IE_PRECIP_AEA: Pu-238 + 239/240 (2)	HNO3 to pH <2
B1PFT3		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2
B1PFT3		W			4x1000-mL aG	8270_SVOA_GCMS: List-1 (13)	Cool~4C

L. Wall 9/9/07

ICED Initial Date

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			9-10-07 0800	KB Hulse	KB Hulse	KB Hulse	9-10-07 0800
KB Hulse	KB Hulse	KB Hulse	9-10-07 0900	[illegible]	[illegible]	[illegible]	9/10/07 0900
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION: Disposal Method (e.g., Return to customer, per lab procedure, used in process) | Disposed By | Date/Time