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RECEIVED MARCH 25, 2008

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Memorandum

M4W41-SLF-08-324

To: H. Hampt E6-35 Date: March 25, 2008

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	File/LB	
P. D. Mix	S3-30		

Subject: FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20080207

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 WSCF20080207:

- Cover Sheet (Attachment 1)
- Narrative (Attachment 2)
- Analytical Results (Attachment 3)
- Sample Receipt Information (Attachment 4)
- Sample Cancellation Reference (Attachment 5)

SLF/grf

Attachments 5

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M4W41-SLF-08-324

ATTACHMENT 1

COVER SHEET

Consisting of 3 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20080207
Data Deliverable Date: 20-mar-2008
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
A08-001	B1RPX1	W08P000549	WATER
	B1RPY0	W08P000537	WATER
	B1RPY1	W08P000538	WATER
	B1RPY3	W08P000536	WATER
	B1RPY6	W08P000547	WATER
	B1RPY7	W08P000548	WATER
I08-010	B1RB35	W08P000510	WATER
	B1RB36	W08P000511	WATER
I08-017	B1RRH4	W08P000545	WATER
	B1RRH5	W08P000546	WATER
	B1RRH6	W08P000543	WATER
	B1RRH7	W08P000544	WATER
	B1RRH9	W08P000534	WATER
	B1RRJ0	W08P000535	WATER
I08-018	B1RTD8	W08P000541	WATER
	B1RTD9	W08P000542	WATER
S08-002	B1TBF0	W08P000540	WATER
S08-012	B1RCH9	W08P000508	WATER
	B1RCJ0	W08P000509	WATER
	B1RCJ3	W08P000512	WATER
	B1RCJ4	W08P000513	WATER
	B1RCJ7	W08P000514	WATER
	B1RCJ8	W08P000515	WATER
	B1RCK9	W08P000520	WATER
	B1RCL0	W08P000521	WATER
	B1RCL5	W08P000518	WATER
	B1RCL6	W08P000519	WATER
W08-001	B1RVW0	W08P000556	WATER
	B1RVW1	W08P000557	WATER
	B1RVW2	W08P000558	WATER
	B1RVW3	W08P000559	WATER
	B1RVW6	W08P000562	WATER
	B1RVW7	W08P000563	WATER
	B1RW18	W08P000522	WATER
	B1RW19	W08P000523	WATER
	B1RW20	W08P000524	WATER
	B1RW21	W08P000525	WATER
	B1RW24	W08P000530	WATER

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20080207
Data Deliverable Date: 20-mar-2008

SAF#	Data Deliverable: Sample ID	Cover Sheet WSCF#	Matrix
	B1RW25	W08P000531	WATER
	B1RW28	W08P000539	WATER
	B1RW29	W08P000564	WATER
	B1RW38	W08P000526	WATER
	B1RW39	W08P000527	WATER
	B1RW40	W08P000528	WATER
	B1RW41	W08P000529	WATER
	B1RW44	W08P000532	WATER
	B1RW45	W08P000533	WATER
	B1RW50	W08P000552	WATER
	B1RW51	W08P000553	WATER
	B1RW52	W08P000554	WATER
	B1RW53	W08P000555	WATER
	B1RW56	W08P000560	WATER
	B1RW57	W08P000561	WATER
	B1RW60	W08P000550	WATER
	B1RW61	W08P000551	WATER
W08-012	B1RHY8	W08P000507	WATER

M4W41-SLF-08-324

ATTACHMENT 2

NARRATIVE

Consisting of 5 pages
Including cover page

Introduction

Fifty-eight (58) groundwater samples were received at the WSCF Laboratory on February 6, 2008. Fifty-six (56) of the samples, however 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. Analyses of samples B1RB38 and B1RB39 were canceled per client direction (e-mail, from Heidi Hampt to Pauline Mix, dated 2/27/2008).

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. Additionally, a copy of the e-mail directing cancellation of samples is included as Attachment 5.

It should be noted that the attached chain of custody was stamped "ICED" 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 19 through 22, 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 81 through 83 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.

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 84 for QC details. Analytical Note(s):

- Matrix Spikes and Matrix Spike Duplicates were analyzed on samples B1T1T6 (SDG# 20080162, SAF# F08-037) and B1RHY8 of this SDG.

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 85 through 91 for QC details. Analytical Note(s):

- B1RCH9 Batch QC

  - Calcium, Magnesium and Sodium – sample results exceeded spiking level. Spike recoveries were marked N/A (spike recoveries are not valid). Check and high standards used to ensure Calcium, Magnesium and Sodium linearity because sample results are greater than the calibration standard. No flags issued.

- B1RW44 Batch QC

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

  - Calcium, Magnesium and Sodium – sample results exceeded spiking level. Spike recoveries were marked N/A (spike recoveries are not valid). Check and high standards used to ensure Calcium, Magnesium and Sodium linearity because sample results are greater than the calibration standard. No flags issued.

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 pages 92 through 94 for QC details. Analytical Note(s):

- Matrix Spikes and Matrix Spike Duplicates were analyzed on samples B1RCJ0, B1RCL6, B1RCL0 and B1RW24 (SDG# 20080207).

All 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 95 for QC details. Analytical Note(s):

- Duplicate QC was analyzed on sample# B1RTY2 (SDG# 20080180).

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 96 for QC details.

All QC controls are within the established limits.

Total Organic Halides – 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 page 97 for QC details. Analytical Note(s):

- Sample results were X flagged if carbon column breakthrough >10%.

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 120 through 124 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.

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 125 through 129 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.

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, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 148 through 155 for QC details. Analytical Note(s):

- Gross Alpha/Gross Beta – Duplicate QC was analyzed on sample# B1RTY9 (SDG# 20080180). Duplicate Relative Percent Difference (RPD) slightly exceeded established laboratory limits for Gross Beta. No flags issued.

- Plutonium-242 (Tracer) – Surrogate, Blank and Laboratory Control Sample recoveries were less than established laboratory limits. No flags issued.

- Technetium-99 – Duplicate and Matrix Spike were analyzed on sample# B1RTC9 (SDG# 20080164).

- Tritium – Duplicates and Matrix Spikes were analyzed on samples B1RPX3 (SDG# 20080196) and B1RPY6 of this SDG.

- B1RPX3 Batch QC

  - Blank recovery was outside the established laboratory limits. No flags issued.

- B1RPY6 Batch QC

  - Laboratory Control Sample recovery was less than established laboratory limits. No flags issued.

All other 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

M4W41-SLF-08-324

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 148 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

GPAP
Richland, WA 99352

Attention: Steve Trent E6-35

Analytical: S. Fitzgerald 3/25/08

Client Services: P.D. Mix 3/24/2008

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 addressee 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#: WSCF20080207
Report Date: 24-mar-2008
Report WGPP/ver. 5.2
GPAP

w13qlog v4.2 24-mar-2008 07:16:29

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20080207

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
35081	2	35486	39764	BLANK		Anions by Ion Chromatography
35081	14	35486	39764	BLANK		Anions by Ion Chromatography
35081	3	35486	39764	LCS		Anions by Ion Chromatography
35081	11	35486	39764	SAMPLE	W08P000509	Anions by Ion Chromatography
35081	10	35486	39764	SAMPLE	W08P000511	Anions by Ion Chromatography
35081	7	35486	39764	DUP	W08P000513	Anions by Ion Chromatography
35081	8	35486	39764	MS	W08P000513	Anions by Ion Chromatography
35081	9	35486	39764	MSD	W08P000513	Anions by Ion Chromatography
35081	6	35486	39764	SAMPLE	W08P000513	Anions by Ion Chromatography
35081	9	35486	39764	SPK-RPD	W08P000513	Anions by Ion Chromatography
35081	5	35486	39764	SAMPLE	W08P000515	Anions by Ion Chromatography
35081	4	35486	39764	SAMPLE	W08P000519	Anions by Ion Chromatography
35081	13	35486	39764	SAMPLE	W08P000521	Anions by Ion Chromatography
35081	12	35486	39764	SAMPLE	W08P000546	Anions by Ion Chromatography
35082	2	35484	39766	BLANK		Anions by Ion Chromatography
35082	13	35484	39766	BLANK		Anions by Ion Chromatography
35082	3	35484	39766	LCS		Anions by Ion Chromatography
35082	5	35484	39766	DUP	W08P000535	Anions by Ion Chromatography
35082	6	35484	39766	MS	W08P000535	Anions by Ion Chromatography
35082	7	35484	39766	MSD	W08P000535	Anions by Ion Chromatography
35082	4	35484	39766	SAMPLE	W08P000535	Anions by Ion Chromatography
35082	7	35484	39766	SPK-RPD	W08P000535	Anions by Ion Chromatography
35082	9	35484	39766	SAMPLE	W08P000541	Anions by Ion Chromatography
35082	10	35484	39766	SAMPLE	W08P000542	Anions by Ion Chromatography
35082	11	35484	39766	SAMPLE	W08P000544	Anions by Ion Chromatography
35082	12	35484	39766	SAMPLE	W08P000563	Anions by Ion Chromatography
35157	1	35560	39845	BLANK		Cyanide by Midi/Spectrophotom
35157	2	35560	39845	LCS		Cyanide by Midi/Spectrophotom
35157	7	35560	39845	MS	W08GR00191	Cyanide by Midi/Spectrophotom
35157	8	35560	39845	MSD	W08GR00191	Cyanide by Midi/Spectrophotom
35157	8	35560	39845	SPK-RPD	W08GR00191	Cyanide by Midi/Spectrophotom
35157	11	35560	39845	MS	W08P000507	Cyanide by Midi/Spectrophotom
35157	12	35560	39845	MSD	W08P000507	Cyanide by Midi/Spectrophotom
35157	10	35560	39845	SAMPLE	W08P000507	Cyanide by Midi/Spectrophotom
35157	12	35560	39845	SPK-RPD	W08P000507	Cyanide by Midi/Spectrophotom
35157	14	35560	39845	SAMPLE	W08P000513	Cyanide by Midi/Spectrophotom
35157	15	35560	39845	SAMPLE	W08P000515	Cyanide by Midi/Spectrophotom
35157	16	35560	39845	SAMPLE	W08P000519	Cyanide by Midi/Spectrophotom
35157	17	35560	39845	SAMPLE	W08P000521	Cyanide by Midi/Spectrophotom
35170	1	35573	39852	LCS		Total Alkalinity as mg/L CaCO3
35170	13	35573	39852	LCS		Total Alkalinity as mg/L CaCO3
35170	24	35573	39852	LCS		Total Alkalinity as mg/L CaCO3
35170	3	35573	39852	DUP	W08P000486	Total Alkalinity as mg/L CaCO3
35170	5	35573	39852	SAMPLE	W08P000507	Total Alkalinity as mg/L CaCO3
35170	6	35573	39852	SAMPLE	W08P000513	Total Alkalinity as mg/L CaCO3
35170	7	35573	39852	SAMPLE	W08P000515	Total Alkalinity as mg/L CaCO3
35170	8	35573	39852	SAMPLE	W08P000519	Total Alkalinity as mg/L CaCO3
35170	9	35573	39852	SAMPLE	W08P000521	Total Alkalinity as mg/L CaCO3
35170	10	35573	39852	SAMPLE	W08P000531	Total Alkalinity as mg/L CaCO3

35170	11	35573	39852	SAMPLE	W08P000533	Total Alkalinity as mg/L CaCO3
35170	12	35573	39852	SAMPLE	W08P000551	Total Alkalinity as mg/L CaCO3
35170	14	35573	39852	SAMPLE	W08P000561	Total Alkalinity as mg/L CaCO3
35170	15	35573	39852	SAMPLE	W08P000563	Total Alkalinity as mg/L CaCO3
35170	16	35573	39852	SAMPLE	W08P000564	Total Alkalinity as mg/L CaCO3
35266	1	35670	39956	BLANK		ICP-200.8 MS All possible meta
35266	2	35670	39956	LCS		ICP-200.8 MS All possible meta
35266	15	35670	39956	SAMPLE	W08P000508	ICP-200.8 MS All possible meta
35266	4	35670	39956	MS	W08P000509	ICP-200.8 MS All possible meta
35266	5	35670	39956	MSD	W08P000509	ICP-200.8 MS All possible meta
35266	3	35670	39956	SAMPLE	W08P000509	ICP-200.8 MS All possible meta
35266	5	35670	39956	SPK-RPD	W08P000509	ICP-200.8 MS All possible meta
35266	16	35670	39956	SAMPLE	W08P000513	ICP-200.8 MS All possible meta
35266	17	35670	39956	SAMPLE	W08P000515	ICP-200.8 MS All possible meta
35266	18	35670	39956	SAMPLE	W08P000518	ICP-200.8 MS All possible meta
35266	7	35670	39956	MS	W08P000519	ICP-200.8 MS All possible meta
35266	8	35670	39956	MSD	W08P000519	ICP-200.8 MS All possible meta
35266	6	35670	39956	SAMPLE	W08P000519	ICP-200.8 MS All possible meta
35266	8	35670	39956	SPK-RPD	W08P000519	ICP-200.8 MS All possible meta
35266	19	35670	39956	SAMPLE	W08P000520	ICP-200.8 MS All possible meta
35266	10	35670	39956	MS	W08P000521	ICP-200.8 MS All possible meta
35266	11	35670	39956	MSD	W08P000521	ICP-200.8 MS All possible meta
35266	9	35670	39956	SAMPLE	W08P000521	ICP-200.8 MS All possible meta
35266	11	35670	39956	SPK-RPD	W08P000521	ICP-200.8 MS All possible meta
35266	13	35670	39956	MS	W08P000530	ICP-200.8 MS All possible meta
35266	14	35670	39956	MSD	W08P000530	ICP-200.8 MS All possible meta
35266	12	35670	39956	SAMPLE	W08P000530	ICP-200.8 MS All possible meta
35266	14	35670	39956	SPK-RPD	W08P000530	ICP-200.8 MS All possible meta
35266	20	35670	39956	SAMPLE	W08P000531	ICP-200.8 MS All possible meta
35266	21	35670	39956	SAMPLE	W08P000532	ICP-200.8 MS All possible meta
35266	22	35670	39956	SAMPLE	W08P000533	ICP-200.8 MS All possible meta
35266	23	35670	39956	SAMPLE	W08P000534	ICP-200.8 MS All possible meta
35266	24	35670	39956	SAMPLE	W08P000535	ICP-200.8 MS All possible meta
35266	25	35670	39956	SAMPLE	W08P000539	ICP-200.8 MS All possible meta
35266	26	35670	39956	SAMPLE	W08P000541	ICP-200.8 MS All possible meta
35266	27	35670	39956	SAMPLE	W08P000542	ICP-200.8 MS All possible meta
35266	28	35670	39956	SAMPLE	W08P000543	ICP-200.8 MS All possible meta
35266	29	35670	39956	SAMPLE	W08P000544	ICP-200.8 MS All possible meta
35266	30	35670	39956	SAMPLE	W08P000545	ICP-200.8 MS All possible meta
35266	31	35670	39956	SAMPLE	W08P000546	ICP-200.8 MS All possible meta
35266	32	35670	39956	SAMPLE	W08P000549	ICP-200.8 MS All possible meta
35266	33	35670	39956	SAMPLE	W08P000550	ICP-200.8 MS All possible meta
35266	34	35670	39956	SAMPLE	W08P000551	ICP-200.8 MS All possible meta
35266	35	35670	39956	SAMPLE	W08P000560	ICP-200.8 MS All possible meta
35266	36	35670	39956	SAMPLE	W08P000561	ICP-200.8 MS All possible meta
35266	37	35670	39956	SAMPLE	W08P000562	ICP-200.8 MS All possible meta
35266	38	35670	39956	SAMPLE	W08P000563	ICP-200.8 MS All possible meta
35266	39	35670	39956	SAMPLE	W08P000564	ICP-200.8 MS All possible meta
35361	1	35766	40107	BLANK		ICP Metals Analysis, Grd H20 P
35361	2	35766	40107	LCS		ICP Metals Analysis, Grd H20 P
35361	4	35766	40107	MS	W08P000508	ICP Metals Analysis, Grd H20 P
35361	5	35766	40107	MSD	W08P000508	ICP Metals Analysis, Grd H20 P
35361	3	35766	40107	SAMPLE	W08P000508	ICP Metals Analysis, Grd H20 P
35361	5	35766	40107	SPK-RPD	W08P000508	ICP Metals Analysis, Grd H20 P
35361	6	35766	40107	SAMPLE	W08P000509	ICP Metals Analysis, Grd H20 P
35361	7	35766	40107	SAMPLE	W08P000510	ICP Metals Analysis, Grd H20 P
35361	8	35766	40107	SAMPLE	W08P000511	ICP Metals Analysis, Grd H20 P
35361	9	35766	40107	SAMPLE	W08P000512	ICP Metals Analysis, Grd H20 P

35361	10	35766	40107	SAMPLE	W08P000513	ICP Metals Analysis, Grd H20 P
35361	11	35766	40107	SAMPLE	W08P000514	ICP Metals Analysis, Grd H20 P
35361	12	35766	40107	SAMPLE	W08P000515	ICP Metals Analysis, Grd H20 P
35361	13	35766	40107	SAMPLE	W08P000518	ICP Metals Analysis, Grd H20 P
35361	14	35766	40107	SAMPLE	W08P000519	ICP Metals Analysis, Grd H20 P
35361	15	35766	40107	SAMPLE	W08P000520	ICP Metals Analysis, Grd H20 P
35361	16	35766	40107	SAMPLE	W08P000521	ICP Metals Analysis, Grd H20 P
35361	17	35766	40107	SAMPLE	W08P000530	ICP Metals Analysis, Grd H20 P
35361	18	35766	40107	SAMPLE	W08P000531	ICP Metals Analysis, Grd H20 P
35388	1	35793	40109	BLANK		ICP Metals Analysis, Grd H20 P
35388	2	35793	40109	LCS		ICP Metals Analysis, Grd H20 P
35388	4	35793	40109	MS	W08P000532	ICP Metals Analysis, Grd H20 P
35388	5	35793	40109	MSD	W08P000532	ICP Metals Analysis, Grd H20 P
35388	3	35793	40109	SAMPLE	W08P000532	ICP Metals Analysis, Grd H20 P
35388	5	35793	40109	SPK-RPD	W08P000532	ICP Metals Analysis, Grd H20 P
35388	6	35793	40109	SAMPLE	W08P000533	ICP Metals Analysis, Grd H20 P
35388	7	35793	40109	SAMPLE	W08P000539	ICP Metals Analysis, Grd H20 P
35388	8	35793	40109	SAMPLE	W08P000550	ICP Metals Analysis, Grd H20 P
35388	9	35793	40109	SAMPLE	W08P000551	ICP Metals Analysis, Grd H20 P
35388	10	35793	40109	SAMPLE	W08P000560	ICP Metals Analysis, Grd H20 P
35388	11	35793	40109	SAMPLE	W08P000561	ICP Metals Analysis, Grd H20 P
35388	12	35793	40109	SAMPLE	W08P000562	ICP Metals Analysis, Grd H20 P
35388	13	35793	40109	SAMPLE	W08P000563	ICP Metals Analysis, Grd H20 P
35388	14	35793	40109	SAMPLE	W08P000564	ICP Metals Analysis, Grd H20 P
35514	1	35920	40207	BLANK		Total Organic Carbon
35514	2	35920	40207	METHSPIKE		Total Organic Carbon
35514	3	35920	40207	SPK-RSD		Total Organic Carbon
35514	4	35920	40207	MS	W08P000522	Total Organic Carbon
35514	5	35920	40207	MSD	W08P000522	Total Organic Carbon
35514	7	35920	40207	SAMPLE	W08P000522	Total Organic Carbon
35514	5	35920	40207	SPK-RPD	W08P000522	Total Organic Carbon
35514	8	35920	40207	SAMPLE	W08P000553	Total Organic Carbon
35514	9	35920	40207	SAMPLE	W08P000554	Total Organic Carbon
35514	10	35920	40207	SAMPLE	W08P000555	Total Organic Carbon
35514	11	35920	40207	SAMPLE	W08P000556	Total Organic Carbon
35514	12	35920	40207	SAMPLE	W08P000557	Total Organic Carbon
35514	13	35920	40207	SAMPLE	W08P000558	Total Organic Carbon
35514	14	35920	40207	SAMPLE	W08P000559	Total Organic Carbon
35529	1	35935	40219	BLANK		Total Organic Carbon
35529	2	35935	40219	METHSPIKE		Total Organic Carbon
35529	3	35935	40219	SPK-RSD		Total Organic Carbon
35529	8	35935	40219	SAMPLE	W08P000523	Total Organic Carbon
35529	9	35935	40219	SAMPLE	W08P000524	Total Organic Carbon
35529	10	35935	40219	SAMPLE	W08P000525	Total Organic Carbon
35529	11	35935	40219	SAMPLE	W08P000526	Total Organic Carbon
35529	12	35935	40219	SAMPLE	W08P000527	Total Organic Carbon
35529	13	35935	40219	SAMPLE	W08P000528	Total Organic Carbon
35529	14	35935	40219	SAMPLE	W08P000529	Total Organic Carbon
35529	4	35935	40219	MS	W08P000552	Total Organic Carbon
35529	5	35935	40219	MSD	W08P000552	Total Organic Carbon
35529	7	35935	40219	SAMPLE	W08P000552	Total Organic Carbon
35529	5	35935	40219	SPK-RPD	W08P000552	Total Organic Carbon
35641	1	36047	40330	BLANK		Total Organic Halides
35641	3	36047	40330	LCS		Total Organic Halides
35641	6	36047	40330	MS	W08P000522	Total Organic Halides
35641	7	36047	40330	MSD	W08P000522	Total Organic Halides

35641	5	36047	40330	SAMPLE	W08P000522	Total Organic Halides
35641	7	36047	40330	SPK-RPD	W08P000522	Total Organic Halides
35641	8	36047	40330	SAMPLE	W08P000523	Total Organic Halides
35641	9	36047	40330	SAMPLE	W08P000524	Total Organic Halides
35641	10	36047	40330	SAMPLE	W08P000525	Total Organic Halides
35641	11	36047	40330	SAMPLE	W08P000526	Total Organic Halides
35641	12	36047	40330	SAMPLE	W08P000527	Total Organic Halides
35641	13	36047	40330	SAMPLE	W08P000528	Total Organic Halides
35641	14	36047	40330	SAMPLE	W08P000529	Total Organic Halides
35641	15	36047	40330	SAMPLE	W08P000552	Total Organic Halides
35641	16	36047	40330	SAMPLE	W08P000553	Total Organic Halides
35641	17	36047	40330	SAMPLE	W08P000554	Total Organic Halides
35641	18	36047	40330	SAMPLE	W08P000555	Total Organic Halides
35641	20	36047	40330	MS	W08P000556	Total Organic Halides
35641	21	36047	40330	MSD	W08P000556	Total Organic Halides
35641	19	36047	40330	SAMPLE	W08P000556	Total Organic Halides
35641	21	36047	40330	SPK-RPD	W08P000556	Total Organic Halides
35641	22	36047	40330	SAMPLE	W08P000557	Total Organic Halides
35641	23	36047	40330	SAMPLE	W08P000558	Total Organic Halides
35641	24	36047	40330	SAMPLE	W08P000559	Total Organic Halides

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Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20080207

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			39871	BLANK		SW-846 8270C Semi-Vols
			39871	LCS		SW-846 8270C Semi-Vols
			39871	SAMPLE	W08P000509	SW-846 8270C Semi-Vols
			39871	SURR	W08P000509	SW-846 8270C Semi-Vols
			39871	SAMPLE	W08P000519	SW-846 8270C Semi-Vols
			39871	SURR	W08P000519	SW-846 8270C Semi-Vols
			39871	MS	W08P000521	SW-846 8270C Semi-Vols
			39871	MSD	W08P000521	SW-846 8270C Semi-Vols
			39871	SAMPLE	W08P000521	SW-846 8270C Semi-Vols
			39871	SPK-RPD	W08P000521	SW-846 8270C Semi-Vols
			39871	SURR	W08P000521	SW-846 8270C Semi-Vols
			40284	BLANK		VOA Ground Water Protection
			40284	LCS		VOA Ground Water Protection
			40284	MS	W08P000509	VOA Ground Water Protection
			40284	MSD	W08P000509	VOA Ground Water Protection
			40284	SAMPLE	W08P000509	VOA Ground Water Protection
			40284	SPK-RPD	W08P000509	VOA Ground Water Protection
			40284	SURR	W08P000509	VOA Ground Water Protection
			40284	SAMPLE	W08P000519	VOA Ground Water Protection
			40284	SURR	W08P000519	VOA Ground Water Protection
			40284	SAMPLE	W08P000521	VOA Ground Water Protection
			40284	SURR	W08P000521	VOA Ground Water Protection
			40284	SAMPLE	W08P000535	VOA Ground Water Protection
			40284	SURR	W08P000535	VOA Ground Water Protection
			40284	SAMPLE	W08P000540	VOA Ground Water Protection
			40284	SURR	W08P000540	VOA Ground Water Protection
			40284	SAMPLE	W08P000541	VOA Ground Water Protection
			40284	SURR	W08P000541	VOA Ground Water Protection
			40284	SAMPLE	W08P000542	VOA Ground Water Protection
			40284	SURR	W08P000542	VOA Ground Water Protection
			40284	SAMPLE	W08P000544	VOA Ground Water Protection
			40284	SURR	W08P000544	VOA Ground Water Protection
			40284	SAMPLE	W08P000546	VOA Ground Water Protection
			40284	SURR	W08P000546	VOA Ground Water Protection
			40284	SAMPLE	W08P000563	VOA Ground Water Protection
			40284	SURR	W08P000563	VOA Ground Water Protection

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Department: Radiochemistry

W13q Worklist/Batch/QC Report for Group# WSCF20080207

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
35166	1	35569	39884	BLANK		Tritium by Liq Sct column prep
35166	4	35569	39884	LCS		Tritium by Liq Sct column prep
35166	3	35569	39884	DUP	W08P000547	Tritium by Liq Sct column prep
35166	2	35569	39884	MS	W08P000547	Tritium by Liq Sct column prep
35166	7	35569	39884	SAMPLE	W08P000547	Tritium by Liq Sct column prep
35166	8	35569	39884	SAMPLE	W08P000548	Tritium by Liq Sct column prep
35166	9	35569	39884	SAMPLE	W08P000549	Tritium by Liq Sct column prep
35172	1	35575	39897	BLANK		Gross Alpha/Gross Beta (AB32)
35172	2	35575	39897	LCS		Gross Alpha/Gross Beta (AB32)
35172	3	35575	39897	DUP	W08P000485	Gross Alpha/Gross Beta (AB32)
35172	7	35575	39897	SAMPLE	W08P000511	Gross Alpha/Gross Beta (AB32)
35142	1	35545	39926	BLANK		TC99 by Liquid Scin.
35142	2	35545	39926	LCS		TC99 by Liquid Scin.
35142	4	35545	39926	DUP	W08P000436	TC99 by Liquid Scin.
35142	3	35545	39926	MS	W08P000436	TC99 by Liquid Scin.
35142	9	35545	39926	SAMPLE	W08P000519	TC99 by Liquid Scin.
35142	10	35545	39926	SAMPLE	W08P000521	TC99 by Liquid Scin.
35142	11	35545	39926	SAMPLE	W08P000535	TC99 by Liquid Scin.
35142	12	35545	39926	SAMPLE	W08P000541	TC99 by Liquid Scin.
35142	13	35545	39926	SAMPLE	W08P000542	TC99 by Liquid Scin.
35142	14	35545	39926	SAMPLE	W08P000544	TC99 by Liquid Scin.
35142	15	35545	39926	SAMPLE	W08P000546	TC99 by Liquid Scin.
35142	16	35545	39926	SAMPLE	W08P000549	TC99 by Liquid Scin.
35173	1	35576	39931	BLANK		Gross Alpha on Alpha Plateau
35173	2	35576	39931	LCS		Gross Alpha on Alpha Plateau
35173	3	35576	39931	DUP	W08P000485	Gross Alpha on Alpha Plateau
35173	7	35576	39931	SAMPLE	W08P000511	Gross Alpha on Alpha Plateau
35099	1	35502	39940	BLANK		Gamma Energy Analysis-grd H2O
35099	2	35502	39940	LCS		Gamma Energy Analysis-grd H2O
35099	3	35502	39940	DUP	W08P000513	Gamma Energy Analysis-grd H2O
35099	4	35502	39940	SAMPLE	W08P000513	Gamma Energy Analysis-grd H2O
35099	5	35502	39940	SAMPLE	W08P000515	Gamma Energy Analysis-grd H2O
35214	1	35619	39963	BLANK		Plutonium Isotopics by AEA
35214	2	35619	39963	LCS		Plutonium Isotopics by AEA
35214	3	35619	39963	DUP	W08P000519	Plutonium Isotopics by AEA
35214	4	35619	39963	SAMPLE	W08P000519	Plutonium Isotopics by AEA
35214	5	35619	39963	SURR	W08P000519	Plutonium Isotopics by AEA
35214	6	35619	39963	SAMPLE	W08P000521	Plutonium Isotopics by AEA
35214	7	35619	39963	SURR	W08P000521	Plutonium Isotopics by AEA
35215	1	35620	39965	BLANK		Americium by AEA
35215	2	35620	39965	LCS		Americium by AEA
35215	3	35620	39965	DUP	W08P000519	Americium by AEA
35215	4	35620	39965	SAMPLE	W08P000519	Americium by AEA
35215	5	35620	39965	SURR	W08P000519	Americium by AEA
35215	6	35620	39965	SAMPLE	W08P000521	Americium by AEA
35215	7	35620	39965	SURR	W08P000521	Americium by AEA

35141	1	35544	39971	BLANK		Tritium by Liq Sct column prep
35141	2	35544	39971	LCS		Tritium by Liq Sct column prep
35141	4	35544	39971	DUP	W08P000491	Tritium by Liq Sct column prep
35141	3	35544	39971	MS	W08P000491	Tritium by Liq Sct column prep
35141	8	35544	39971	SAMPLE	W08P000509	Tritium by Liq Sct column prep
35141	9	35544	39971	SAMPLE	W08P000511	Tritium by Liq Sct column prep
35141	10	35544	39971	SAMPLE	W08P000513	Tritium by Liq Sct column prep
35141	11	35544	39971	SAMPLE	W08P000515	Tritium by Liq Sct column prep
35141	12	35544	39971	SAMPLE	W08P000519	Tritium by Liq Sct column prep
35141	13	35544	39971	SAMPLE	W08P000521	Tritium by Liq Sct column prep
35141	14	35544	39971	SAMPLE	W08P000536	Tritium by Liq Sct column prep
35141	15	35544	39971	SAMPLE	W08P000537	Tritium by Liq Sct column prep
35141	16	35544	39971	SAMPLE	W08P000538	Tritium by Liq Sct column prep
35330	1	35735	40130	BLANK		Neptunium by AEA
35330	2	35735	40130	LCS		Neptunium by AEA
35330	3	35735	40130	DUP	W08P000509	Neptunium by AEA
35330	5	35735	40130	MS	W08P000509	Neptunium by AEA
35330	6	35735	40130	MSD	W08P000509	Neptunium by AEA
35330	4	35735	40130	SAMPLE	W08P000509	Neptunium by AEA
35330	6	35735	40130	SPK-RPD	W08P000509	Neptunium by AEA

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-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
	HEIS RADISOTOPES_ICPMS	Radioisotopes by ICP/MS
LA-523-444	LA-523-444: TOTAL ORGANIC HALIDES BASED ON SW-846 METHOD 9020B	
	EPA SW-846 9020B	TOTAL ORGANIC HALIDES (TOX)
	HEIS 9020_TOX	Total Organic Halides based on SW846 Method 9020B
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	

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.

EPA-600/4-79-020 335.2	Cyanide, Total
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-508-415 LA-508-415: OPERATION OF THE PROTEAN 2-INCH ALPHA/BETA COUNTING SYSTEM FOR GROSS

HEIS ALPHA_GPC	GROSS ALPHA GPC
HEIS BETA_GPC	GROSS BETA GPC
HEIS SRTOT_SEP_PRECIP_GP	Strontium 89/90

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

LA-508-481 LA-508-481: GAMMA ENERGY ANALYSIS USING PROCOUNT SOFTWARE

HEIS GAMMA_GS	Gamma Emmision Spectrometry

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: W08-012
Sample # W08P000507
Client ID: B1RHY8 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Cyanide											
Cyanide	57-12-5	LA-695-402		4.00	ug/L			1.00	4.0		02/12/08
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		110	mg/L			1.00	1.0		02/14/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000508
Client ID: B1RCH9 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		22.0	ug/L			1.00	9.0		03/03/08
Magnesium	7439-95-4	LA-505-411		1.30e+04	ug/L			1.00	6.0		03/03/08
Manganese	7439-96-5	LA-505-411		24.0	ug/L			1.00	4.0		03/03/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Potassium	7440-09-7	LA-505-411		7.29e+03	ug/L			1.00	45		03/03/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/03/08
Sodium	7440-23-5	LA-505-411		3.86e+04	ug/L			1.00	27		03/03/08
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		03/03/08
Barium	7440-39-3	LA-505-411		27.9	ug/L			1.00	4.0		03/03/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Chromium	7440-47-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Vanadium	7440-62-2	LA-505-411		16.4	ug/L			1.00	7.0		03/03/08
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Calcium	7440-70-2	LA-505-411		5.24e+04	ug/L			1.00	34		03/03/08
Strontium	7440-24-6	LA-505-411		270	ug/L			1.00	4.0		03/03/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Aluminum	7429-90-5	LA-505-412	U	< 5.00	ug/L			1.00	5.00		02/20/08
Arsenic	7440-38-2	LA-505-412		5.98	ug/L			1.00	0.400		02/20/08
Thallium	7440-28-0	LA-505-412	U	< 0.100	ug/L			1.00	0.100		02/20/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000509
Client ID: B1RCJ0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

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	D	0.473	mg/L			2.00	0.012		02/07/08
Chloride	16887-00-6	LA-533-410	D	14.2	mg/L			2.00	0.060		02/07/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0200	mg/L			2.00	0.020		02/07/08
Nitrogen in Nitrate	NO3-N	LA-533-410	D	4.61	mg/L			2.00	0.010		02/07/08
Sulfate	14808-79-8	LA-533-410	D	128	mg/L			10.00	0.70		02/07/08
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		343	ug/L			1.00	9.0		03/03/08
Magnesium	7439-95-4	LA-505-411		1.30e+04	ug/L			1.00	6.0		03/03/08
Manganese	7439-96-5	LA-505-411		39.4	ug/L			1.00	4.0		03/03/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Potassium	7440-09-7	LA-505-411		7.44e+03	ug/L			1.00	45		03/03/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/03/08
Sodium	7440-23-5	LA-505-411		3.90e+04	ug/L			1.00	27		03/03/08
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		03/03/08
Barium	7440-39-3	LA-505-411		30.0	ug/L			1.00	4.0		03/03/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Chromium	7440-47-3	LA-505-411		4.60	ug/L			1.00	4.0		03/03/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Vanadium	7440-62-2	LA-505-411		19.0	ug/L			1.00	7.0		03/03/08
Zinc	7440-66-6	LA-505-411		5.90	ug/L			1.00	4.0		03/03/08
Calcium	7440-70-2	LA-505-411		5.19e+04	ug/L			1.00	34		03/03/08
Strontium	7440-24-6	LA-505-411		265	ug/L			1.00	4.0		03/03/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000509
Client ID: B1RCJ0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

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		03/03/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Aluminum	7429-90-5	LA-505-412		65.8	ug/L			1.00	5.00		02/20/08
Uranium	7440-61-1	LA-505-412		3.15	ug/L			1.00	0.0500		02/20/08
Arsenic	7440-38-2	LA-505-412		5.98	ug/L			1.00	0.400		02/20/08
Thallium	7440-28-0	LA-505-412	U	< 0.100	ug/L			1.00	0.100		02/20/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-010
Sample # W08P000510
Client ID: B1RB35 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		20.8	ug/L			1.00	9.0		03/03/08
Magnesium	7439-95-4	LA-505-411		1.34e+04	ug/L			1.00	6.0		03/03/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Potassium	7440-09-7	LA-505-411		6.27e+03	ug/L			1.00	45		03/03/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/03/08
Sodium	7440-23-5	LA-505-411		3.01e+04	ug/L			1.00	27		03/03/08
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		03/03/08
Barium	7440-39-3	LA-505-411		31.0	ug/L			1.00	4.0		03/03/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Chromium	7440-47-3	LA-505-411		11.4	ug/L			1.00	4.0		03/03/08
Cobalt	7440-48-4	LA-505-411		4.60	ug/L			1.00	4.0		03/03/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Vanadium	7440-62-2	LA-505-411	U	< 7.00	ug/L			1.00	7.0		03/03/08
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Calcium	7440-70-2	LA-505-411		4.35e+04	ug/L			1.00	34		03/03/08
Strontium	7440-24-6	LA-505-411		297	ug/L			1.00	4.0		03/03/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-010
Sample # W08P000511
Client ID: B1RB36 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

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	D	0.319	mg/L			2.00	0.012		02/07/08
Chloride	16887-00-6	LA-533-410	D	13.0	mg/L			2.00	0.060		02/07/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0200	mg/L			2.00	0.020		02/07/08
Nitrogen in Nitrate	NO3-N	LA-533-410	D	5.09	mg/L			2.00	0.010		02/07/08
Sulfate	14808-79-8	LA-533-410	D	63.0	mg/L			2.00	0.14		02/07/08
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		26.0	ug/L			1.00	9.0		03/03/08
Magnesium	7439-95-4	LA-505-411		1.37e+04	ug/L			1.00	6.0		03/03/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Potassium	7440-09-7	LA-505-411		6.37e+03	ug/L			1.00	45		03/03/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/03/08
Sodium	7440-23-5	LA-505-411		3.04e+04	ug/L			1.00	27		03/03/08
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		03/03/08
Barium	7440-39-3	LA-505-411		31.1	ug/L			1.00	4.0		03/03/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Chromium	7440-47-3	LA-505-411		14.7	ug/L			1.00	4.0		03/03/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Vanadium	7440-62-2	LA-505-411	U	< 7.00	ug/L			1.00	7.0		03/03/08
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Calcium	7440-70-2	LA-505-411		4.42e+04	ug/L			1.00	34		03/03/08
Strontium	7440-24-6	LA-505-411		302	ug/L			1.00	4.0		03/03/08

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

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D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-010
Sample # W08P000511
Client ID: B1RB36 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

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		03/03/08

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)
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U - Analyzed for but not detected above limiting criteria.(org)

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J - Analyte < lowest calibration but > = MDL.(org)
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X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000512
Client ID: B1RCJ3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		53.0	ug/L			1.00	9.0		03/03/08
Magnesium	7439-95-4	LA-505-411		1.00e+04	ug/L			1.00	6.0		03/03/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Potassium	7440-09-7	LA-505-411		6.78e+03	ug/L			1.00	45		03/03/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/03/08
Sodium	7440-23-5	LA-505-411		9.70e+03	ug/L			1.00	27		03/03/08
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		03/03/08
Barium	7440-39-3	LA-505-411		70.4	ug/L			1.00	4.0		03/03/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Chromium	7440-47-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Vanadium	7440-62-2	LA-505-411	U	< 7.00	ug/L			1.00	7.0		03/03/08
Zinc	7440-66-6	LA-505-411		10.2	ug/L			1.00	4.0		03/03/08
Calcium	7440-70-2	LA-505-411		2.91e+04	ug/L			1.00	34		03/03/08
Strontium	7440-24-6	LA-505-411		233	ug/L			1.00	4.0		03/03/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08

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)
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U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
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X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000513
Client ID: B1RCJ4 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

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	0.0517	mg/L			2.00	0.012		02/07/08
Chloride	16887-00-6	LA-533-410	D	8.79	mg/L			2.00	0.060		02/07/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0200	mg/L			2.00	0.020		02/07/08
Nitrogen in Nitrate	NO3-N	LA-533-410	BD	0.149	mg/L			2.00	0.010		02/07/08
Sulfate	14808-79-8	LA-533-410	D	15.4	mg/L			2.00	0.14		02/07/08
Cyanide											
Cyanide	57-12-5	LA-695-402	U	< 4.00	ug/L			1.00	4.0		02/12/08
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		498	ug/L			1.00	9.0		03/03/08
Magnesium	7439-95-4	LA-505-411		9.89e+03	ug/L			1.00	6.0		03/03/08
Manganese	7439-96-5	LA-505-411		5.90	ug/L			1.00	4.0		03/03/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Potassium	7440-09-7	LA-505-411		6.70e+03	ug/L			1.00	45		03/03/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/03/08
Sodium	7440-23-5	LA-505-411		9.57e+03	ug/L			1.00	27		03/03/08
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		03/03/08
Barium	7440-39-3	LA-505-411		71.2	ug/L			1.00	4.0		03/03/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Chromium	7440-47-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Vanadium	7440-62-2	LA-505-411	U	< 7.00	ug/L			1.00	7.0		03/03/08
Zinc	7440-66-6	LA-505-411		10.7	ug/L			1.00	4.0		03/03/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000513
Client ID: B1RCJ4 PNNL-GPP WSCF
Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Calcium	7440-70-2	LA-505-411		2.88e+04	ug/L			1.00	34		03/03/08
Strontium	7440-24-6	LA-505-411		231	ug/L			1.00	4.0		03/03/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Uranium	7440-61-1	LA-505-412		3.32	ug/L			1.00	0.0500		02/20/08
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		120	mg/L			1.00	1.0		02/14/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000514
Client ID: B1RCJ7 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	U	< 9.00	ug/L			1.00	9.0		03/03/08
Magnesium	7439-95-4	LA-505-411		10.2	ug/L			1.00	6.0		03/03/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Potassium	7440-09-7	LA-505-411	U	< 45.0	ug/L			1.00	45		03/03/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/03/08
Sodium	7440-23-5	LA-505-411	U	< 27.0	ug/L			1.00	27		03/03/08
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		03/03/08
Barium	7440-39-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Chromium	7440-47-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Vanadium	7440-62-2	LA-505-411	U	< 7.00	ug/L			1.00	7.0		03/03/08
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Calcium	7440-70-2	LA-505-411		52.3	ug/L			1.00	34		03/03/08
Strontium	7440-24-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000515
Client ID: B1RCJ8 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

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	DU	< 0.0120	mg/L			2.00	0.012		02/07/08
Chloride	16887-00-6	LA-533-410	DU	< 0.0600	mg/L			2.00	0.060		02/07/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0200	mg/L			2.00	0.020		02/07/08
Nitrogen in Nitrate	NO3-N	LA-533-410	DU	< 0.0100	mg/L			2.00	0.010		02/07/08
Sulfate	14808-79-8	LA-533-410	DU	< 0.140	mg/L			2.00	0.14		02/07/08
Cyanide											
Cyanide	57-12-5	LA-695-402	U	< 4.00	ug/L			1.00	4.0		02/12/08
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	U	< 9.00	ug/L			1.00	9.0		03/03/08
Magnesium	7439-95-4	LA-505-411	U	< 6.00	ug/L			1.00	6.0		03/03/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Potassium	7440-09-7	LA-505-411	U	< 45.0	ug/L			1.00	45		03/03/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/03/08
Sodium	7440-23-5	LA-505-411	U	< 27.0	ug/L			1.00	27		03/03/08
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		03/03/08
Barium	7440-39-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Chromium	7440-47-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Vanadium	7440-62-2	LA-505-411	U	< 7.00	ug/L			1.00	7.0		03/03/08
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000515
Client ID: B1RCJ8 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Calcium	7440-70-2	LA-505-411	U	< 34.0	ug/L			1.00	34		03/03/08
Strontium	7440-24-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Uranium	7440-61-1	LA-505-412	U	< 0.0500	ug/L			1.00	0.0500		02/20/08
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411	U	< 1.00	mg/L			1.00	1.0		02/14/08

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)
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U - Analyzed for but not detected above limiting criteria.(org)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000518
Client ID: B1RCL5 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	U	< 9.00	ug/L			1.00	9.0		03/03/08
Magnesium	7439-95-4	LA-505-411	U	< 6.00	ug/L			1.00	6.0		03/03/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Potassium	7440-09-7	LA-505-411	U	< 45.0	ug/L			1.00	45		03/03/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/03/08
Sodium	7440-23-5	LA-505-411	U	< 27.0	ug/L			1.00	27		03/03/08
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		03/03/08
Barium	7440-39-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Chromium	7440-47-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Vanadium	7440-62-2	LA-505-411	U	< 7.00	ug/L			1.00	7.0		03/03/08
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Calcium	7440-70-2	LA-505-411	U	< 34.0	ug/L			1.00	34		03/03/08
Lithium	7439-93-2	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Strontium	7440-24-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Aluminum	7429-90-5	LA-505-412	U	< 5.00	ug/L			1.00	5.00		02/20/08
Arsenic	7440-38-2	LA-505-412	U	< 0.400	ug/L			1.00	0.400		02/20/08

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)
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U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
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X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000518
Client ID: B1RCL5 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Thallium	7440-28-0	LA-505-412	U	< 0.100	ug/L			1.00	0.100		02/20/08

MDL=Minimum Detection Limit
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U - Analyzed for but not detected above limiting criteria.(org)

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U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000519
Client ID: B1RCL6 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

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	DU	< 0.0120	mg/L			2.00	0.012		02/07/08
Chloride	16887-00-6	LA-533-410	DU	< 0.0600	mg/L			2.00	0.060		02/07/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0200	mg/L			2.00	0.020		02/07/08
Nitrogen in Nitrate	NO3-N	LA-533-410	DU	< 0.0100	mg/L			2.00	0.010		02/07/08
Sulfate	14808-79-8	LA-533-410	DU	< 0.140	mg/L			2.00	0.14		02/07/08
Cyanide											
Cyanide	57-12-5	LA-695-402	U	< 4.00	ug/L			1.00	4.0		02/12/08
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	U	< 9.00	ug/L			1.00	9.0		03/03/08
Magnesium	7439-95-4	LA-505-411	U	< 6.00	ug/L			1.00	6.0		03/03/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Potassium	7440-09-7	LA-505-411	U	< 45.0	ug/L			1.00	45		03/03/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/03/08
Sodium	7440-23-5	LA-505-411	U	< 27.0	ug/L			1.00	27		03/03/08
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		03/03/08
Barium	7440-39-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Chromium	7440-47-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Vanadium	7440-62-2	LA-505-411	U	< 7.00	ug/L			1.00	7.0		03/03/08
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08

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

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U - Analyzed for but not detected above limiting criteria.(org)
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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000519
Client ID: B1RCL6 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Calcium	7440-70-2	LA-505-411	U	< 34.0	ug/L			1.00	34		03/03/08
Strontium	7440-24-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Aluminum	7429-90-5	LA-505-412	U	< 5.00	ug/L			1.00	5.00		02/20/08
Uranium	7440-61-1	LA-505-412	U	< 0.0500	ug/L			1.00	0.0500		02/20/08
Arsenic	7440-38-2	LA-505-412	U	< 0.400	ug/L			1.00	0.400		02/20/08
Thallium	7440-28-0	LA-505-412	U	< 0.100	ug/L			1.00	0.100		02/20/08
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411	U	< 1.00	mg/L			1.00	1.0		02/14/08

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

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U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
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U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000520
Client ID: B1RCK9 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		17.7	ug/L			1.00	9.0		03/03/08
Magnesium	7439-95-4	LA-505-411		1.55e+04	ug/L			1.00	6.0		03/03/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Potassium	7440-09-7	LA-505-411		8.48e+03	ug/L			1.00	45		03/03/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/03/08
Sodium	7440-23-5	LA-505-411		4.41e+04	ug/L			1.00	27		03/03/08
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		03/03/08
Barium	7440-39-3	LA-505-411		31.4	ug/L			1.00	4.0		03/03/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Chromium	7440-47-3	LA-505-411		7.80	ug/L			1.00	4.0		03/03/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Vanadium	7440-62-2	LA-505-411		22.0	ug/L			1.00	7.0		03/03/08
Zinc	7440-66-6	LA-505-411		8.70	ug/L			1.00	4.0		03/03/08
Calcium	7440-70-2	LA-505-411		5.66e+04	ug/L			1.00	34		03/03/08
Strontium	7440-24-6	LA-505-411		258	ug/L			1.00	4.0		03/03/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Aluminum	7429-90-5	LA-505-412		6.65	ug/L			1.00	5.00		02/20/08
Arsenic	7440-38-2	LA-505-412		7.26	ug/L			1.00	0.400		02/20/08
Thallium	7440-28-0	LA-505-412	U	< 0.100	ug/L			1.00	0.100		02/20/08

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000521
Client ID: B1RCL0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

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	D	0.532	mg/L			2.00	0.012		02/07/08
Chloride	16887-00-6	LA-533-410	D	18.9	mg/L			2.00	0.060		02/07/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0200	mg/L			2.00	0.020		02/07/08
Nitrogen in Nitrate	NO3-N	LA-533-410	D	9.79	mg/L			10.00	0.050		02/07/08
Sulfate	14808-79-8	LA-533-410	D	123	mg/L			10.00	0.70		02/07/08
Cyanide											
Cyanide	57-12-5	LA-695-402		18.8	ug/L			1.00	4.0		02/12/08
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		42.2	ug/L			1.00	9.0		03/03/08
Magnesium	7439-95-4	LA-505-411		1.56e+04	ug/L			1.00	6.0		03/03/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Potassium	7440-09-7	LA-505-411		8.61e+03	ug/L			1.00	45		03/03/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/03/08
Sodium	7440-23-5	LA-505-411		4.48e+04	ug/L			1.00	27		03/03/08
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		03/03/08
Barium	7440-39-3	LA-505-411		31.8	ug/L			1.00	4.0		03/03/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Chromium	7440-47-3	LA-505-411		5.90	ug/L			1.00	4.0		03/03/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Vanadium	7440-62-2	LA-505-411		11.8	ug/L			1.00	7.0		03/03/08
Zinc	7440-66-6	LA-505-411		5.60	ug/L			1.00	4.0		03/03/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000521
Client ID: B1RCL0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Calcium	7440-70-2	LA-505-411		5.64e+04	ug/L			1.00	34		03/03/08
Strontium	7440-24-6	LA-505-411		261	ug/L			1.00	4.0		03/03/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Aluminum	7429-90-5	LA-505-412		7.20	ug/L			1.00	5.00		02/20/08
Uranium	7440-61-1	LA-505-412		4.79	ug/L			1.00	0.0500		02/20/08
Arsenic	7440-38-2	LA-505-412		7.69	ug/L			1.00	0.400		02/20/08
Thallium	7440-28-0	LA-505-412	U	< 0.100	ug/L			1.00	0.100		02/20/08
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		130	mg/L			1.00	1.0		02/14/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000522
Client ID: B1RW18 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Organic Halides Prep											**03/03/08**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	X	5.52	ug/L			1.00	5.0		03/05/08
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.808	mg/L			1.00	0.30		03/04/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000523
Client ID: B1RW19 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Organic Halides Prep											**03/03/08**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	X	6.03	ug/L			1.00	5.0		03/05/08
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.798	mg/L			1.00	0.30		03/04/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000524
Client ID: B1RW20 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Organic Halides Prep											**03/03/08**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	X	5.84	ug/L			1.00	5.0		03/05/08
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.939	mg/L			1.00	0.30		03/04/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000525
Client ID: B1RW21 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Organic Halides Prep											**03/03/08**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444		5.41	ug/L			1.00	5.0		03/05/08
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.890	mg/L			1.00	0.30		03/04/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000526
Client ID: B1RW38 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Organic Halides Prep											**03/03/08**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	U	< 5.00	ug/L			1.00	5.0		03/05/08
Total organic carbon											
Total organic carbon	TOC	LA-344-406		1.28	mg/L			1.00	0.30		03/04/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000527
Client ID: B1RW39 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Organic Halides Prep											**03/03/08**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	U	< 5.00	ug/L			1.00	5.0		03/05/08
Total organic carbon											
Total organic carbon	TOC	LA-344-406		1.26	mg/L			1.00	0.30		03/04/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000528
Client ID: B1RW40 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Organic Halides Prep											**03/03/08**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	U	< 5.00	ug/L			1.00	5.0		03/05/08
Total organic carbon											
Total organic carbon	TOC	LA-344-406		1.31	mg/L			1.00	0.30		03/04/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000529
Client ID: B1RW41 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Organic Halides Prep											**03/03/08**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	X	5.25	ug/L			1.00	5.0		03/05/08
Total organic carbon											
Total organic carbon	TOC	LA-344-406		1.28	mg/L			1.00	0.30		03/04/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000530
Client ID: B1RW24 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		21.7	ug/L			1.00	9.0		03/03/08
Magnesium	7439-95-4	LA-505-411		1.53e+04	ug/L			1.00	6.0		03/03/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Nickel	7440-02-0	LA-505-411		4.60	ug/L			1.00	4.0		03/03/08
Potassium	7440-09-7	LA-505-411		4.93e+03	ug/L			1.00	45		03/03/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/03/08
Sodium	7440-23-5	LA-505-411		2.64e+04	ug/L			1.00	27		03/03/08
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		03/03/08
Barium	7440-39-3	LA-505-411		54.6	ug/L			1.00	4.0		03/03/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Chromium	7440-47-3	LA-505-411		10.8	ug/L			1.00	4.0		03/03/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Vanadium	7440-62-2	LA-505-411		15.5	ug/L			1.00	7.0		03/03/08
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Calcium	7440-70-2	LA-505-411		5.18e+04	ug/L			1.00	34		03/03/08
Strontium	7440-24-6	LA-505-411		188	ug/L			1.00	4.0		03/03/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Lead	7439-92-1	LA-505-412	U	< 0.100	ug/L			1.00	0.100		02/20/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000531
Client ID: B1RW25 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		80.5	ug/L			1.00	9.0		03/03/08
Magnesium	7439-95-4	LA-505-411		1.52e+04	ug/L			1.00	6.0		03/03/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Nickel	7440-02-0	LA-505-411		4.80	ug/L			1.00	4.0		03/03/08
Potassium	7440-09-7	LA-505-411		4.92e+03	ug/L			1.00	45		03/03/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/03/08
Sodium	7440-23-5	LA-505-411		2.64e+04	ug/L			1.00	27		03/03/08
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		03/03/08
Barium	7440-39-3	LA-505-411		54.3	ug/L			1.00	4.0		03/03/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Chromium	7440-47-3	LA-505-411		13.7	ug/L			1.00	4.0		03/03/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Vanadium	7440-62-2	LA-505-411		23.5	ug/L			1.00	7.0		03/03/08
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
Calcium	7440-70-2	LA-505-411		5.22e+04	ug/L			1.00	34		03/03/08
Strontium	7440-24-6	LA-505-411		188	ug/L			1.00	4.0		03/03/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/03/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Lead	7439-92-1	LA-505-412	U	< 0.100	ug/L			1.00	0.100		02/20/08
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		110	mg/L			1.00	1.0		02/14/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000532
Client ID: B1RW44 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		33.7	ug/L			1.00	9.0		03/04/08
Magnesium	7439-95-4	LA-505-411		1.36e+04	ug/L			1.00	6.0		03/04/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Nickel	7440-02-0	LA-505-411		5.20	ug/L			1.00	4.0		03/04/08
Potassium	7440-09-7	LA-505-411		4.66e+03	ug/L			1.00	45		03/04/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/04/08
Sodium	7440-23-5	LA-505-411		1.36e+04	ug/L			1.00	27		03/04/08
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		03/04/08
Barium	7440-39-3	LA-505-411		59.4	ug/L			1.00	4.0		03/04/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Chromium	7440-47-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Vanadium	7440-62-2	LA-505-411		16.2	ug/L			1.00	7.0		03/04/08
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Calcium	7440-70-2	LA-505-411		4.17e+04	ug/L			1.00	34		03/04/08
Strontium	7440-24-6	LA-505-411		179	ug/L			1.00	4.0		03/04/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Lead	7439-92-1	LA-505-412	U	< 0.100	ug/L			1.00	0.100		02/20/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000533
Client ID: B1RW45 PNNL-GPP WSCF
Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		69.9	ug/L			1.00	9.0		03/04/08
Magnesium	7439-95-4	LA-505-411		1.38e+04	ug/L			1.00	6.0		03/04/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Nickel	7440-02-0	LA-505-411		7.10	ug/L			1.00	4.0		03/04/08
Potassium	7440-09-7	LA-505-411		4.68e+03	ug/L			1.00	45		03/04/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/04/08
Sodium	7440-23-5	LA-505-411		1.38e+04	ug/L			1.00	27		03/04/08
Antimony	7440-36-0	LA-505-411	C	37.6	ug/L			1.00	32		03/04/08
Barium	7440-39-3	LA-505-411		61.2	ug/L			1.00	4.0		03/04/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Chromium	7440-47-3	LA-505-411		13.4	ug/L			1.00	4.0		03/04/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Vanadium	7440-62-2	LA-505-411		20.0	ug/L			1.00	7.0		03/04/08
Zinc	7440-66-6	LA-505-411		5.00	ug/L			1.00	4.0		03/04/08
Calcium	7440-70-2	LA-505-411		4.17e+04	ug/L			1.00	34		03/04/08
Strontium	7440-24-6	LA-505-411		182	ug/L			1.00	4.0		03/04/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Lead	7439-92-1	LA-505-412	U	< 0.100	ug/L			1.00	0.100		02/20/08
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		140	mg/L			1.00	1.0		02/14/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-017
Sample # W08P000534
Client ID: B1RRH9 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Arsenic	7440-38-2	LA-505-412		1.24	ug/L			1.00	0.400		02/20/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-017
Sample # W08P000535
Client ID: B1RRJ0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

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	D	0.199	mg/L			2.00	0.012		02/07/08
Chloride	16887-00-6	LA-533-410	D	15.9	mg/L			2.00	0.060		02/07/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0200	mg/L			2.00	0.020		02/07/08
Nitrogen in Nitrate	NO3-N	LA-533-410	D	4.30	mg/L			2.00	0.010		02/07/08
Sulfate	14808-79-8	LA-533-410	D	22.8	mg/L			2.00	0.14		02/07/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Uranium	7440-61-1	LA-505-412		1.06	ug/L			1.00	0.0500		02/20/08
Arsenic	7440-38-2	LA-505-412		1.27	ug/L			1.00	0.400		02/20/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000539
Client ID: B1RW28 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		35.7	ug/L			1.00	9.0		03/04/08
Magnesium	7439-95-4	LA-505-411		1.52e+04	ug/L			1.00	6.0		03/04/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Potassium	7440-09-7	LA-505-411		4.88e+03	ug/L			1.00	45		03/04/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/04/08
Sodium	7440-23-5	LA-505-411		2.61e+04	ug/L			1.00	27		03/04/08
Antimony	7440-36-0	LA-505-411	C	45.7	ug/L			1.00	32		03/04/08
Barium	7440-39-3	LA-505-411		53.6	ug/L			1.00	4.0		03/04/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Chromium	7440-47-3	LA-505-411		5.80	ug/L			1.00	4.0		03/04/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Vanadium	7440-62-2	LA-505-411		17.7	ug/L			1.00	7.0		03/04/08
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Calcium	7440-70-2	LA-505-411		5.07e+04	ug/L			1.00	34		03/04/08
Strontium	7440-24-6	LA-505-411		186	ug/L			1.00	4.0		03/04/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Lead	7439-92-1	LA-505-412	U	< 0.100	ug/L			1.00	0.100		02/20/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-018
Sample # W08P000541
Client ID: B1RTD8 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

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	D	0.294	mg/L			2.00	0.012		02/07/08
Chloride	16887-00-6	LA-533-410	D	17.8	mg/L			2.00	0.060		02/07/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0200	mg/L			2.00	0.020		02/07/08
Nitrogen in Nitrate	NO3-N	LA-533-410	D	30.7	mg/L			10.00	0.050		02/07/08
Sulfate	14808-79-8	LA-533-410	D	38.5	mg/L			2.00	0.14		02/07/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Uranium	7440-61-1	LA-505-412		5.96	ug/L			1.00	0.0500		02/20/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-018
Sample # W08P000542
Client ID: B1RTD9 PNNL-GPP WSCF
Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

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	D	0.300	mg/L			2.00	0.012		02/07/08
Chloride	16887-00-6	LA-533-410	D	17.8	mg/L			2.00	0.060		02/07/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0200	mg/L			2.00	0.020		02/07/08
Nitrogen in Nitrate	NO3-N	LA-533-410	D	30.7	mg/L			10.00	0.050		02/07/08
Sulfate	14808-79-8	LA-533-410	D	38.6	mg/L			2.00	0.14		02/07/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Uranium	7440-61-1	LA-505-412		5.99	ug/L			1.00	0.0500		02/20/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-017
Sample # W08P000543
Client ID: B1RRH6 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Arsenic	7440-38-2	LA-505-412		3.01	ug/L			1.00	0.400		02/20/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-017
Sample # W08P000544
Client ID: B1RRH7 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

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	D	0.261	mg/L			2.00	0.012		02/07/08
Chloride	16887-00-6	LA-533-410	D	16.2	mg/L			2.00	0.060		02/07/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0200	mg/L			2.00	0.020		02/07/08
Nitrogen in Nitrate	NO3-N	LA-533-410	D	26.4	mg/L			10.00	0.050		02/07/08
Sulfate	14808-79-8	LA-533-410	D	33.5	mg/L			2.00	0.14		02/07/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Uranium	7440-61-1	LA-505-412		20.5	ug/L			1.00	0.0500		02/20/08
Arsenic	7440-38-2	LA-505-412		3.04	ug/L			1.00	0.400		02/20/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-017
Sample # W08P000545
Client ID: B1RRH4 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Arsenic	7440-38-2	LA-505-412		2.92	ug/L			1.00	0.400		02/20/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-017
Sample # W08P000546
Client ID: B1RRH5 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

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	D	0.239	mg/L			2.00	0.012		02/07/08
Chloride	16887-00-6	LA-533-410	D	16.0	mg/L			2.00	0.060		02/07/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0200	mg/L			2.00	0.020		02/07/08
Nitrogen in Nitrate	NO3-N	LA-533-410	D	26.1	mg/L			10.00	0.050		02/07/08
Sulfate	14808-79-8	LA-533-410	D	33.4	mg/L			2.00	0.14		02/07/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Uranium	7440-61-1	LA-505-412		20.8	ug/L			1.00	0.0500		02/20/08
Arsenic	7440-38-2	LA-505-412		3.02	ug/L			1.00	0.400		02/20/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: A08-001
Sample # W08P000549
Client ID: B1RPX1 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Uranium	7440-61-1	LA-505-412		0.950	ug/L			1.00	0.0500		02/20/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000550
Client ID: B1RW60 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		46.3	ug/L			1.00	9.0		03/04/08
Magnesium	7439-95-4	LA-505-411		1.61e+04	ug/L			1.00	6.0		03/04/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Nickel	7440-02-0	LA-505-411		11.2	ug/L			1.00	4.0		03/04/08
Potassium	7440-09-7	LA-505-411		5.12e+03	ug/L			1.00	45		03/04/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/04/08
Sodium	7440-23-5	LA-505-411		2.37e+04	ug/L			1.00	27		03/04/08
Antimony	7440-36-0	LA-505-411	C	44.2	ug/L			1.00	32		03/04/08
Barium	7440-39-3	LA-505-411		55.3	ug/L			1.00	4.0		03/04/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Chromium	7440-47-3	LA-505-411		15.4	ug/L			1.00	4.0		03/04/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Vanadium	7440-62-2	LA-505-411		14.1	ug/L			1.00	7.0		03/04/08
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Calcium	7440-70-2	LA-505-411		5.52e+04	ug/L			1.00	34		03/04/08
Strontium	7440-24-6	LA-505-411		225	ug/L			1.00	4.0		03/04/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Lead	7439-92-1	LA-505-412	U	< 0.100	ug/L			1.00	0.100		02/20/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000551
Client ID: B1RW61 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		208	ug/L			1.00	9.0		03/04/08
Magnesium	7439-95-4	LA-505-411		1.62e+04	ug/L			1.00	6.0		03/04/08
Manganese	7439-96-5	LA-505-411		6.60	ug/L			1.00	4.0		03/04/08
Nickel	7440-02-0	LA-505-411		25.9	ug/L			1.00	4.0		03/04/08
Potassium	7440-09-7	LA-505-411		5.11e+03	ug/L			1.00	45		03/04/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/04/08
Sodium	7440-23-5	LA-505-411		2.38e+04	ug/L			1.00	27		03/04/08
Antimony	7440-36-0	LA-505-411	C	32.0	ug/L			1.00	32		03/04/08
Barium	7440-39-3	LA-505-411		55.1	ug/L			1.00	4.0		03/04/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Chromium	7440-47-3	LA-505-411		42.1	ug/L			1.00	4.0		03/04/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Vanadium	7440-62-2	LA-505-411		18.7	ug/L			1.00	7.0		03/04/08
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Calcium	7440-70-2	LA-505-411		5.54e+04	ug/L			1.00	34		03/04/08
Strontium	7440-24-6	LA-505-411		226	ug/L			1.00	4.0		03/04/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Lead	7439-92-1	LA-505-412	U	< 0.100	ug/L			1.00	0.100		02/20/08
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		92.0	mg/L			1.00	1.0		02/14/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000552
Client ID: B1RW50 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Organic Halides Prep											**03/03/08**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	X	25.3	ug/L			1.00	5.0		03/05/08
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.808	mg/L			1.00	0.30		03/04/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000553
Client ID: B1RW51 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Organic Halides Prep											**03/03/08**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	X	6.56	ug/L			1.00	5.0		03/05/08
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.798	mg/L			1.00	0.30		03/04/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000554
Client ID: B1RW52 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Organic Halides Prep											**03/03/08**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	X	6.95	ug/L			1.00	5.0		03/05/08
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.939	mg/L			1.00	0.30		03/04/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000555
Client ID: B1RW53 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Organic Halides Prep											**03/03/08**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	U	< 5.00	ug/L			1.00	5.0		03/05/08
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.890	mg/L			1.00	0.30		03/04/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000556
Client ID: B1RVW0 PNNL-GPP WSCF
Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Organic Halides Prep											**03/03/08**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	X	42.6	ug/L			1.00	5.0		03/05/08
Total organic carbon											
Total organic carbon	TOC	LA-344-406		1.28	mg/L			1.00	0.30		03/04/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000557
Client ID: B1RVW1 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Organic Halides Prep											**03/03/08**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	X	40.3	ug/L			1.00	5.0		03/05/08
Total organic carbon											
Total organic carbon	TOC	LA-344-406		1.26	mg/L			1.00	0.30		03/04/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000558
Client ID: B1RVW2 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Organic Halides Prep											**03/03/08**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	X	36.9	ug/L			1.00	5.0		03/05/08
Total organic carbon											
Total organic carbon	TOC	LA-344-406		1.31	mg/L			1.00	0.30		03/04/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000559
Client ID: B1RVW3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Organic Halides Prep											**03/03/08**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	X	37.9	ug/L			1.00	5.0		03/05/08
Total organic carbon											
Total organic carbon	TOC	LA-344-406		1.28	mg/L			1.00	0.30		03/04/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000560
Client ID: B1RW56 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		47.7	ug/L			1.00	9.0		03/04/08
Magnesium	7439-95-4	LA-505-411		1.60e+04	ug/L			1.00	6.0		03/04/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Nickel	7440-02-0	LA-505-411		10.1	ug/L			1.00	4.0		03/04/08
Potassium	7440-09-7	LA-505-411		5.11e+03	ug/L			1.00	45		03/04/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/04/08
Sodium	7440-23-5	LA-505-411		2.34e+04	ug/L			1.00	27		03/04/08
Antimony	7440-36-0	LA-505-411	C	43.7	ug/L			1.00	32		03/04/08
Barium	7440-39-3	LA-505-411		55.4	ug/L			1.00	4.0		03/04/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Chromium	7440-47-3	LA-505-411		10.9	ug/L			1.00	4.0		03/04/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Vanadium	7440-62-2	LA-505-411		15.8	ug/L			1.00	7.0		03/04/08
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Calcium	7440-70-2	LA-505-411		5.55e+04	ug/L			1.00	34		03/04/08
Strontium	7440-24-6	LA-505-411		225	ug/L			1.00	4.0		03/04/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Lead	7439-92-1	LA-505-412	U	< 0.100	ug/L			1.00	0.100		02/20/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000561
Client ID: B1RW57 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		246	ug/L			1.00	9.0		03/04/08
Magnesium	7439-95-4	LA-505-411		1.65e+04	ug/L			1.00	6.0		03/04/08
Manganese	7439-96-5	LA-505-411		6.20	ug/L			1.00	4.0		03/04/08
Nickel	7440-02-0	LA-505-411		24.2	ug/L			1.00	4.0		03/04/08
Potassium	7440-09-7	LA-505-411		5.19e+03	ug/L			1.00	45		03/04/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/04/08
Sodium	7440-23-5	LA-505-411		2.40e+04	ug/L			1.00	27		03/04/08
Antimony	7440-36-0	LA-505-411	C	48.4	ug/L			1.00	32		03/04/08
Barium	7440-39-3	LA-505-411		56.6	ug/L			1.00	4.0		03/04/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Chromium	7440-47-3	LA-505-411		50.7	ug/L			1.00	4.0		03/04/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Vanadium	7440-62-2	LA-505-411		17.1	ug/L			1.00	7.0		03/04/08
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Calcium	7440-70-2	LA-505-411		5.64e+04	ug/L			1.00	34		03/04/08
Strontium	7440-24-6	LA-505-411		230	ug/L			1.00	4.0		03/04/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Lead	7439-92-1	LA-505-412	U	< 0.100	ug/L			1.00	0.100		02/20/08
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		92.0	mg/L			1.00	1.0		02/14/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000562
Client ID: B1RVW6 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		18.9	ug/L			1.00	9.0		03/04/08
Magnesium	7439-95-4	LA-505-411		1.72e+04	ug/L			1.00	6.0		03/04/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Potassium	7440-09-7	LA-505-411		4.88e+03	ug/L			1.00	45		03/04/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/04/08
Sodium	7440-23-5	LA-505-411		1.82e+04	ug/L			1.00	27		03/04/08
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		03/04/08
Barium	7440-39-3	LA-505-411		57.9	ug/L			1.00	4.0		03/04/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Chromium	7440-47-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Copper	7440-50-8	LA-505-411		7.80	ug/L			1.00	4.0		03/04/08
Vanadium	7440-62-2	LA-505-411		19.5	ug/L			1.00	7.0		03/04/08
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Calcium	7440-70-2	LA-505-411		5.83e+04	ug/L			1.00	34		03/04/08
Strontium	7440-24-6	LA-505-411		232	ug/L			1.00	4.0		03/04/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Lead	7439-92-1	LA-505-412	U	< 0.100	ug/L			1.00	0.100		02/20/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000563
Client ID: B1RVW7 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

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	D	0.276	mg/L			2.00	0.012		02/07/08
Chloride	16887-00-6	LA-533-410	D	16.7	mg/L			2.00	0.060		02/07/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0200	mg/L			2.00	0.020		02/07/08
Nitrogen in Nitrate	NO3-N	LA-533-410	D	26.7	mg/L			10.00	0.050		02/07/08
Sulfate	14808-79-8	LA-533-410	D	34.9	mg/L			2.00	0.14		02/07/08
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		98.9	ug/L			1.00	9.0		03/04/08
Magnesium	7439-95-4	LA-505-411		1.74e+04	ug/L			1.00	6.0		03/04/08
Manganese	7439-96-5	LA-505-411		4.00	ug/L			1.00	4.0		03/04/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Potassium	7440-09-7	LA-505-411		4.86e+03	ug/L			1.00	45		03/04/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/04/08
Sodium	7440-23-5	LA-505-411		1.83e+04	ug/L			1.00	27		03/04/08
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		03/04/08
Barium	7440-39-3	LA-505-411		58.3	ug/L			1.00	4.0		03/04/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Chromium	7440-47-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Copper	7440-50-8	LA-505-411		10.7	ug/L			1.00	4.0		03/04/08
Vanadium	7440-62-2	LA-505-411		12.0	ug/L			1.00	7.0		03/04/08
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Calcium	7440-70-2	LA-505-411		5.88e+04	ug/L			1.00	34		03/04/08
Strontium	7440-24-6	LA-505-411		235	ug/L			1.00	4.0		03/04/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000563
Client ID: B1RVW7 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

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		03/04/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Lead	7439-92-1	LA-505-412	U	< 0.100	ug/L			1.00	0.100		02/20/08
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		110	mg/L			1.00	1.0		02/14/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000564
Client ID: B1RW29 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Inorganic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**02/29/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		189	ug/L			1.00	9.0		03/04/08
Magnesium	7439-95-4	LA-505-411		1.51e+04	ug/L			1.00	6.0		03/04/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Nickel	7440-02-0	LA-505-411		15.2	ug/L			1.00	4.0		03/04/08
Potassium	7440-09-7	LA-505-411		4.80e+03	ug/L			1.00	45		03/04/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		03/04/08
Sodium	7440-23-5	LA-505-411		2.59e+04	ug/L			1.00	27		03/04/08
Antimony	7440-36-0	LA-505-411	C	45.3	ug/L			1.00	32		03/04/08
Barium	7440-39-3	LA-505-411		52.5	ug/L			1.00	4.0		03/04/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Chromium	7440-47-3	LA-505-411		35.0	ug/L			1.00	4.0		03/04/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Vanadium	7440-62-2	LA-505-411		14.6	ug/L			1.00	7.0		03/04/08
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
Calcium	7440-70-2	LA-505-411		5.01e+04	ug/L			1.00	34		03/04/08
Strontium	7440-24-6	LA-505-411		184	ug/L			1.00	4.0		03/04/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		03/04/08
ICP-200.8 MS All possible meta Prep											**02/19/08**
ICP-200.8 MS All possible meta											
Lead	7439-92-1	LA-505-412		0.180	ug/L			1.00	0.100		02/20/08
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		110	mg/L			1.00	1.0		02/14/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080207
Matrix: WATER
Test: Anions by Ion Chromatography

Sample Date: 02/06/08
Receive Date:02/06/08

Lab ID: W08P000513

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	Chloride	16887-00-6	8.8027		RPD			0.098	20.000		02/07/08
DUP	Fluoride	16984-48-8	5.61e-2		RPD			8.163	20.000		02/07/08
DUP	Nitrogen in Nitrite	NO2-N	<2e-2		RPD			n/a	20.000	U	02/07/08
DUP	Nitrogen in Nitrate	NO3-N	0.1529		RPD			2.651	20.000		02/07/08
DUP	Sulfate	14808-79-8	15.522		RPD			0.674	20.000		02/07/08
MS	Chloride	16887-00-6	0.9928	99.779	% Recov	75.000	125.000				02/07/08
MS	Fluoride	16984-48-8	0.48985	99.361	% Recov	75.000	125.000				02/07/08
MS	Nitrogen in Nitrite	NO2-N	0.4229	85.955	% Recov	75.000	125.000				02/07/08
MS	Nitrogen in Nitrate	NO3-N	0.44115	98.913	% Recov	75.000	125.000				02/07/08
MS	Sulfate	14808-79-8	1.93225	98.584	% Recov	75.000	125.000				02/07/08
MSD	Chloride	16887-00-6	1.0775	108.291	% Recov	75.000	125.000				02/07/08
MSD	Fluoride	16984-48-8	0.51015	103.479	% Recov	75.000	125.000				02/07/08
MSD	Nitrogen in Nitrite	NO2-N	0.4318	87.764	% Recov	75.000	125.000				02/07/08
MSD	Nitrogen in Nitrate	NO3-N	0.44365	99.473	% Recov	75.000	125.000				02/07/08
MSD	Sulfate	14808-79-8	1.92535	98.232	% Recov	75.000	125.000				02/07/08
SPK-RPD	Chloride	16887-00-6	108.291		RPD			8.182	20.000		02/07/08
SPK-RPD	Fluoride	16984-48-8	103.479		RPD			4.060	20.000		02/07/08
SPK-RPD	Nitrogen in Nitrite	NO2-N	87.764		RPD			2.083	20.000		02/07/08
SPK-RPD	Nitrogen in Nitrate	NO3-N	99.473		RPD			0.565	20.000		02/07/08
SPK-RPD	Sulfate	14808-79-8	98.232		RPD			0.358	20.000		02/07/08

BATCH QC

BLANK	Chloride	16887-00-6	<3e-2	n/a	mg/L	0.000	0.030			U	02/07/08
BLANK	Chloride	16887-00-6	<3e-2	n/a	mg/L	0.000	0.030			U	02/07/08
BLANK	Fluoride	16984-48-8	<6e-3	n/a	mg/L	0.000	0.030			U	02/07/08
BLANK	Fluoride	16984-48-8	<6e-3	n/a	mg/L	0.000	0.030			U	02/07/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080207
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	02/07/08
BLANK	Nitrogen in Nitrite	NO2-N	<1e-2	n/a	mg/L	0.000	0.020			U	02/07/08
BLANK	Nitrogen in Nitrate	NO3-N	<5e-3	n/a	mg/L	0.000	0.040			U	02/07/08
BLANK	Nitrogen in Nitrate	NO3-N	<5e-3	n/a	mg/L	0.000	0.040			U	02/07/08
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	02/07/08
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	02/07/08
LCS	Chloride	16887-00-6	195.9937	97.509	% Recov	80.000	120.000				02/07/08
LCS	Fluoride	16984-48-8	104.1671	104.585	% Recov	80.000	120.000				02/07/08
LCS	Nitrogen in Nitrite	NO2-N	98.5644	99.159	% Recov	80.000	120.000				02/07/08
LCS	Nitrogen in Nitrate	NO3-N	91.6755	101.749	% Recov	80.000	120.000				02/07/08
LCS	Sulfate	14808-79-8	389.4623	98.349	% Recov	80.000	120.000				02/07/08

Lab ID: W08P000535
BATCH QC ASSOCIATED WITH SAMPLE

DUP	Chloride	16887-00-6	15.9696		RPD			0.587	20.000		02/07/08
DUP	Fluoride	16984-48-8	0.2069		RPD			3.842	20.000		02/07/08
DUP	Nitrogen in Nitrite	NO2-N	<2e-2		RPD			n/a	20.000	U	02/07/08
DUP	Nitrogen in Nitrate	NO3-N	4.3035		RPD			0.181	20.000		02/07/08
DUP	Sulfate	14808-79-8	22.9703		RPD			0.742	20.000		02/07/08
MS	Chloride	16887-00-6	0.85375	85.804	% Recov	75.000	125.000				02/07/08
MS	Fluoride	16984-48-8	0.5009	101.602	% Recov	75.000	125.000				02/07/08
MS	Nitrogen in Nitrite	NO2-N	0.4985	101.321	% Recov	75.000	125.000				02/07/08
MS	Nitrogen in Nitrate	NO3-N	0.4413	98.946	% Recov	75.000	125.000				02/07/08
MS	Sulfate	14808-79-8	2.02615	103.375	% Recov	75.000	125.000				02/07/08
MSD	Chloride	16887-00-6	0.89145	89.593	% Recov	75.000	125.000				02/07/08
MSD	Fluoride	16984-48-8	0.5105	103.550	% Recov	75.000	125.000				02/07/08
MSD	Nitrogen in Nitrite	NO2-N	0.5226	106.220	% Recov	75.000	125.000				02/07/08
MSD	Nitrogen in Nitrate	NO3-N	0.45855	102.814	% Recov	75.000	125.000				02/07/08
MSD	Sulfate	14808-79-8	2.02185	103.156	% Recov	75.000	125.000				02/07/08
SPK-RPD	Chloride	16887-00-6	89.593		RPD			4.320	20.000		02/07/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080207
Matrix: WATER
Test: Anions by Ion Chromatography

Sample Date: 02/06/08
Receive Date:02/06/08

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	103.550		RPD			1.899	20.000		02/07/08
SPK-RPD	Nitrogen in Nitrite	NO2-N	106.220		RPD			4.721	20.000		02/07/08
SPK-RPD	Nitrogen in Nitrate	NO3-N	102.814		RPD			3.834	20.000		02/07/08
SPK-RPD	Sulfate	14808-79-8	103.156		RPD			0.212	20.000		02/07/08

BATCH QC

BLANK	Chloride	16887-00-6	<3e-2	n/a	mg/L	0.000	0.030			U	02/07/08
BLANK	Chloride	16887-00-6	<3e-2	n/a	mg/L	0.000	0.030			U	02/07/08
BLANK	Fluoride	16984-48-8	<6e-3	n/a	mg/L	0.000	0.030			U	02/07/08
BLANK	Fluoride	16984-48-8	<6e-3	n/a	mg/L	0.000	0.030			U	02/07/08
BLANK	Nitrogen in Nitrite	NO2-N	<1e-2	n/a	mg/L	0.000	0.020			U	02/07/08
BLANK	Nitrogen in Nitrite	NO2-N	<1e-2	n/a	mg/L	0.000	0.020			U	02/07/08
BLANK	Nitrogen in Nitrate	NO3-N	<5e-3	n/a	mg/L	0.000	0.040			U	02/07/08
BLANK	Nitrogen in Nitrate	NO3-N	<5e-3	n/a	mg/L	0.000	0.040			U	02/07/08
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	02/07/08
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	02/07/08
LCS	Chloride	16887-00-6	196.1027	97.564	% Recov	80.000	120.000				02/07/08
LCS	Fluoride	16984-48-8	104.1886	104.607	% Recov	80.000	120.000				02/07/08
LCS	Nitrogen in Nitrite	NO2-N	98.068	98.660	% Recov	80.000	120.000				02/07/08
LCS	Nitrogen in Nitrate	NO3-N	90.9716	100.967	% Recov	80.000	120.000				02/07/08
LCS	Sulfate	14808-79-8	388.583	98.127	% Recov	80.000	120.000				02/07/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080207
Matrix: WATER
Test: Cyanide by Midi/Spectrophotom

Sample Date: 01/31/08
Receive Date:01/31/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00191											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Cyanide by Midi/Spectrophotom	57-12-5	36.7	91.750	% Recov	75.000	125.000				02/12/08
MSD	Cyanide by Midi/Spectrophotom	57-12-5	37.8	94.500	% Recov	75.000	125.000				02/12/08
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	94.500		RPD			2.953	20.000		02/12/08
Lab ID: W08P000507											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Cyanide by Midi/Spectrophotom	57-12-5	38	95.000	% Recov	75.000	125.000				02/12/08
MSD	Cyanide by Midi/Spectrophotom	57-12-5	38	95.000	% Recov	75.000	125.000				02/12/08
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	95.000		RPD			0.000	20.000		02/12/08
BATCH QC											
BLANK	Cyanide by Midi/Spectrophotom	57-12-5	< 4	n/a	ug/L	-4.000	4.000			U	02/12/08
LCS	Cyanide by Midi/Spectrophotom	57-12-5	48.3	96.600	% Recov	85.000	115.000				02/12/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080207
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 02/06/08
Receive Date:02/06/08

Lab ID: W08P000508
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	960.4	96.040	% Recov	75.000	125.000				03/03/08
MS	Barium	7440-39-3	480.1	96.020	% Recov	75.000	125.000				03/03/08
MS	Beryllium	7440-41-7	512.3	102.460	% Recov	75.000	125.000				03/03/08
MS	Calcium	7440-70-2	NA	n/a	% Recov	75.000	125.000				03/03/08
MS	Cadmium	7440-43-9	974.6	97.460	% Recov	75.000	125.000				03/03/08
MS	Cobalt	7440-48-4	938.1	93.810	% Recov	75.000	125.000				03/03/08
MS	Chromium	7440-47-3	909.8	90.980	% Recov	75.000	125.000				03/03/08
MS	Copper	7440-50-8	947	94.700	% Recov	75.000	125.000				03/03/08
MS	Iron	7439-89-6	955.7	95.570	% Recov	75.000	125.000				03/03/08
MS	Potassium	7440-09-7	9697	96.970	% Recov	75.000	125.000				03/03/08
MS	Magnesium	7439-95-4	NA	n/a	% Recov	75.000	125.000				03/03/08
MS	Manganese	7439-96-5	978	97.800	% Recov	75.000	125.000				03/03/08
MS	Sodium	7440-23-5	NA	n/a	% Recov	75.000	125.000				03/03/08
MS	Nickel	7440-02-0	950.3	95.030	% Recov	75.000	125.000				03/03/08
MS	Antimony	7440-36-0	991.7	99.170	% Recov	75.000	125.000				03/03/08
MS	Strontium	7440-24-6	473.7	94.740	% Recov	75.000	125.000				03/03/08
MS	Vanadium	7440-62-2	932.9	93.290	% Recov	75.000	125.000				03/03/08
MS	Zinc	7440-66-6	965.9	96.590	% Recov	75.000	125.000				03/03/08
MSD	Silver	7440-22-4	979.7	97.970	% Recov	75.000	125.000				03/03/08
MSD	Barium	7440-39-3	488.2	97.640	% Recov	75.000	125.000				03/03/08
MSD	Beryllium	7440-41-7	520.7	104.140	% Recov	75.000	125.000				03/03/08
MSD	Calcium	7440-70-2	NA	n/a	% Recov	75.000	125.000				03/03/08
MSD	Cadmium	7440-43-9	989.2	98.920	% Recov	75.000	125.000				03/03/08
MSD	Cobalt	7440-48-4	958.6	95.860	% Recov	75.000	125.000				03/03/08
MSD	Chromium	7440-47-3	929.8	92.980	% Recov	75.000	125.000				03/03/08
MSD	Copper	7440-50-8	959.8	95.980	% Recov	75.000	125.000				03/03/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080207
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	<5	n/a	ug/L					U	03/03/08
BLANK	Barium	7440-39-3	<4	n/a	ug/L					U	03/03/08
BLANK	Beryllium	7440-41-7	<4	n/a	ug/L					U	03/03/08
BLANK	Calcium	7440-70-2	<34	n/a	ug/L					U	03/03/08
BLANK	Cadmium	7440-43-9	<4	n/a	ug/L					U	03/03/08
BLANK	Cobalt	7440-48-4	<4	n/a	ug/L					U	03/03/08
BLANK	Chromium	7440-47-3	<4	n/a	ug/L					U	03/03/08
BLANK	Copper	7440-50-8	<4	n/a	ug/L					U	03/03/08
BLANK	Iron	7439-89-6	<9	n/a	ug/L					U	03/03/08
BLANK	Potassium	7440-09-7	<45	n/a	ug/L					U	03/03/08
BLANK	Lithium	7439-93-2	<4	n/a	ug/L					U	03/03/08
BLANK	Magnesium	7439-95-4	<6	n/a	ug/L					U	03/03/08
BLANK	Manganese	7439-96-5	<4	n/a	ug/L					U	03/03/08
BLANK	Sodium	7440-23-5	<27	n/a	ug/L					U	03/03/08
BLANK	Nickel	7440-02-0	<4	n/a	ug/L					U	03/03/08
BLANK	Antimony	7440-36-0	<32	n/a	ug/L					U	03/03/08
BLANK	Strontium	7440-24-6	<4	n/a	ug/L					U	03/03/08
BLANK	Vanadium	7440-62-2	<7	n/a	ug/L					U	03/03/08
BLANK	Zinc	7440-66-6	<4	n/a	ug/L					U	03/03/08
LCS	Silver	7440-22-4	983.6	98.360	% Recov	80.000	120.000				03/03/08
LCS	Barium	7440-39-3	482	96.400	% Recov	80.000	120.000				03/03/08
LCS	Beryllium	7440-41-7	521.6	104.320	% Recov	80.000	120.000				03/03/08
LCS	Calcium	7440-70-2	1033	103.300	% Recov	80.000	120.000				03/03/08
LCS	Cadmium	7440-43-9	983.7	98.370	% Recov	80.000	120.000				03/03/08
LCS	Cobalt	7440-48-4	965.7	96.570	% Recov	80.000	120.000				03/03/08
LCS	Chromium	7440-47-3	944.8	94.480	% Recov	80.000	120.000				03/03/08
LCS	Copper	7440-50-8	976.7	97.670	% Recov	80.000	120.000				03/03/08
LCS	Iron	7439-89-6	1002	100.200	% Recov	80.000	120.000				03/03/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080207
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	Potassium	7440-09-7	10200	102.000	% Recov	80.000	120.000				03/03/08
LCS	Lithium	7439-93-2	471.5	94.300	% Recov	80.000	120.000				03/03/08
LCS	Magnesium	7439-95-4	934.1	93.410	% Recov	80.000	120.000				03/03/08
LCS	Manganese	7439-96-5	1003	100.300	% Recov	80.000	120.000				03/03/08
LCS	Sodium	7440-23-5	986.1	98.610	% Recov	80.000	120.000				03/03/08
LCS	Nickel	7440-02-0	977.5	97.750	% Recov	80.000	120.000				03/03/08
LCS	Antimony	7440-36-0	978.5	97.850	% Recov	80.000	120.000				03/03/08
LCS	Strontium	7440-24-6	481.8	96.360	% Recov	80.000	120.000				03/03/08
LCS	Vanadium	7440-62-2	960.7	96.070	% Recov	80.000	120.000				03/03/08
LCS	Zinc	7440-66-6	972	97.200	% Recov	80.000	120.000				03/03/08

Lab ID: W08P000532
BATCH QC ASSOCIATED WITH SAMPLE

MS	Silver	7440-22-4	948	94.800	% Recov	75.000	125.000				03/04/08
MS	Barium	7440-39-3	464.1	92.820	% Recov	75.000	125.000				03/04/08
MS	Beryllium	7440-41-7	499.6	99.920	% Recov	75.000	125.000				03/04/08
MS	Calcium	7440-70-2	NA	n/a	% Recov	75.000	125.000				03/04/08
MS	Cadmium	7440-43-9	949.5	94.950	% Recov	75.000	125.000				03/04/08
MS	Cobalt	7440-48-4	939.6	93.960	% Recov	75.000	125.000				03/04/08
MS	Chromium	7440-47-3	929.8	92.980	% Recov	75.000	125.000				03/04/08
MS	Copper	7440-50-8	933.8	93.380	% Recov	75.000	125.000				03/04/08
MS	Iron	7439-89-6	935.7	93.570	% Recov	75.000	125.000				03/04/08
MS	Potassium	7440-09-7	9402	94.020	% Recov	75.000	125.000				03/04/08
MS	Magnesium	7439-95-4	NA	n/a	% Recov	75.000	125.000				03/04/08
MS	Manganese	7439-96-5	948.7	94.870	% Recov	75.000	125.000				03/04/08
MS	Sodium	7440-23-5	NA	n/a	% Recov	75.000	125.000				03/04/08
MS	Nickel	7440-02-0	922	92.200	% Recov	75.000	125.000				03/04/08
MS	Antimony	7440-36-0	1011	101.100	% Recov	75.000	125.000				03/04/08
MS	Strontium	7440-24-6	465.1	93.020	% Recov	75.000	125.000				03/04/08
MS	Vanadium	7440-62-2	921.5	92.150	% Recov	75.000	125.000				03/04/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080207
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 02/06/08
Receive Date:02/06/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	Zinc	7440-66-6	952.5	95.250	% Recov	75.000	125.000				03/04/08
MSD	Silver	7440-22-4	1016	101.600	% Recov	75.000	125.000				03/04/08
MSD	Barium	7440-39-3	505.3	101.060	% Recov	75.000	125.000				03/04/08
MSD	Beryllium	7440-41-7	540.3	108.060	% Recov	75.000	125.000				03/04/08
MSD	Calcium	7440-70-2	NA	n/a	% Recov	75.000	125.000				03/04/08
MSD	Cadmium	7440-43-9	1018	101.800	% Recov	75.000	125.000				03/04/08
MSD	Cobalt	7440-48-4	1001	100.100	% Recov	75.000	125.000				03/04/08
MSD	Chromium	7440-47-3	995.7	99.570	% Recov	75.000	125.000				03/04/08
MSD	Copper	7440-50-8	1013	101.300	% Recov	75.000	125.000				03/04/08
MSD	Iron	7439-89-6	1000.3	100.030	% Recov	75.000	125.000				03/04/08
MSD	Potassium	7440-09-7	10452	104.520	% Recov	75.000	125.000				03/04/08
MSD	Magnesium	7439-95-4	NA	n/a	% Recov	75.000	125.000				03/04/08
MSD	Manganese	7439-96-5	1024	102.400	% Recov	75.000	125.000				03/04/08
MSD	Sodium	7440-23-5	NA	n/a	% Recov	75.000	125.000				03/04/08
MSD	Nickel	7440-02-0	992	99.200	% Recov	75.000	125.000				03/04/08
MSD	Antimony	7440-36-0	1082	108.200	% Recov	75.000	125.000				03/04/08
MSD	Strontium	7440-24-6	516.2	103.240	% Recov	75.000	125.000				03/04/08
MSD	Vanadium	7440-62-2	997.8	99.780	% Recov	75.000	125.000				03/04/08
MSD	Zinc	7440-66-6	1018	101.800	% Recov	75.000	125.000				03/04/08
SPK-RPD	Silver	7440-22-4	101.600		RPD			6.925	20.000		03/04/08
SPK-RPD	Barium	7440-39-3	101.060		RPD			8.500	20.000		03/04/08
SPK-RPD	Beryllium	7440-41-7	108.060		RPD			7.828	20.000		03/04/08
SPK-RPD	Calcium	7440-70-2			RPD			n/a	20.000		03/04/08
SPK-RPD	Cadmium	7440-43-9	101.800		RPD			6.963	20.000		03/04/08
SPK-RPD	Cobalt	7440-48-4	100.100		RPD			6.328	20.000		03/04/08
SPK-RPD	Chromium	7440-47-3	99.570		RPD			6.845	20.000		03/04/08
SPK-RPD	Copper	7440-50-8	101.300		RPD			8.136	20.000		03/04/08
SPK-RPD	Iron	7439-89-6	100.030		RPD			6.674	20.000		03/04/08
SPK-RPD	Potassium	7440-09-7	104.520		RPD			10.577	20.000		03/04/08
SPK-RPD	Magnesium	7439-95-4			RPD			n/a	20.000		03/04/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080207
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 02/06/08
Receive Date:02/06/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	Manganese	7439-96-5	102.400		RPD			7.634	20.000		03/04/08
SPK-RPD	Sodium	7440-23-5			RPD			n/a	20.000		03/04/08
SPK-RPD	Nickel	7440-02-0	99.200		RPD			7.315	20.000		03/04/08
SPK-RPD	Antimony	7440-36-0	108.200		RPD			6.785	20.000		03/04/08
SPK-RPD	Strontium	7440-24-6	103.240		RPD			10.415	20.000		03/04/08
SPK-RPD	Vanadium	7440-62-2	99.780		RPD			7.951	20.000		03/04/08
SPK-RPD	Zinc	7440-66-6	101.800		RPD			6.648	20.000		03/04/08

BATCH QC

BLANK	Silver	7440-22-4	<5	n/a	ug/L					U	03/04/08
BLANK	Barium	7440-39-3	<4	n/a	ug/L					U	03/04/08
BLANK	Beryllium	7440-41-7	<4	n/a	ug/L					U	03/04/08
BLANK	Calcium	7440-70-2	<34	n/a	ug/L					U	03/04/08
BLANK	Cadmium	7440-43-9	<4	n/a	ug/L					U	03/04/08
BLANK	Cobalt	7440-48-4	<4	n/a	ug/L					U	03/04/08
BLANK	Chromium	7440-47-3	<4	n/a	ug/L					U	03/04/08
BLANK	Copper	7440-50-8	<4	n/a	ug/L					U	03/04/08
BLANK	Iron	7439-89-6	<9	n/a	ug/L					U	03/04/08
BLANK	Potassium	7440-09-7	<45	n/a	ug/L					U	03/04/08
BLANK	Magnesium	7439-95-4	18.3	18.300	ug/L						03/04/08
BLANK	Manganese	7439-96-5	<4	n/a	ug/L					U	03/04/08
BLANK	Sodium	7440-23-5	<27	n/a	ug/L					U	03/04/08
BLANK	Nickel	7440-02-0	<4	n/a	ug/L					U	03/04/08
BLANK	Antimony	7440-36-0	50.5	50.500	ug/L						03/04/08
BLANK	Strontium	7440-24-6	<4	n/a	ug/L					U	03/04/08
BLANK	Vanadium	7440-62-2	<7	n/a	ug/L					U	03/04/08
BLANK	Zinc	7440-66-6	<4	n/a	ug/L					U	03/04/08
LCS	Silver	7440-22-4	918.5	91.850	% Recov	80.000	120.000				03/04/08
LCS	Barium	7440-39-3	445.9	89.180	% Recov	80.000	120.000				03/04/08
LCS	Beryllium	7440-41-7	484.8	96.960	% Recov	80.000	120.000				03/04/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080207
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	Calcium	7440-70-2	933.1	93.310	% Recov	80.000	120.000				03/04/08
LCS	Cadmium	7440-43-9	908.6	90.860	% Recov	80.000	120.000				03/04/08
LCS	Cobalt	7440-48-4	898	89.800	% Recov	80.000	120.000				03/04/08
LCS	Chromium	7440-47-3	886.2	88.620	% Recov	80.000	120.000				03/04/08
LCS	Copper	7440-50-8	914.5	91.450	% Recov	80.000	120.000				03/04/08
LCS	Iron	7439-89-6	920.6	92.060	% Recov	80.000	120.000				03/04/08
LCS	Potassium	7440-09-7	9527	95.270	% Recov	80.000	120.000				03/04/08
LCS	Magnesium	7439-95-4	891.3	89.130	% Recov	80.000	120.000				03/04/08
LCS	Manganese	7439-96-5	918.6	91.860	% Recov	80.000	120.000				03/04/08
LCS	Sodium	7440-23-5	927.3	92.730	% Recov	80.000	120.000				03/04/08
LCS	Nickel	7440-02-0	898.4	89.840	% Recov	80.000	120.000				03/04/08
LCS	Antimony	7440-36-0	974.4	97.440	% Recov	80.000	120.000				03/04/08
LCS	Strontium	7440-24-6	449.8	89.960	% Recov	80.000	120.000				03/04/08
LCS	Vanadium	7440-62-2	890.4	89.040	% Recov	80.000	120.000				03/04/08
LCS	Zinc	7440-66-6	904.5	90.450	% Recov	80.000	120.000				03/04/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080207
Matrix: WATER
Test: ICP-200.8 MS All possible meta

Sample Date: 02/06/08
Receive Date:02/06/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P000509											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Aluminum	7429-90-5	419.15	104.787	% Recov	70.000	130.000				02/20/08
MS	Arsenic	7440-38-2	41.84	104.600	% Recov	70.000	130.000				02/20/08
MS	Thallium	7440-28-0	40.78	101.950	% Recov	70.000	130.000				02/20/08
MS	Uranium	7440-61-1	43.26	108.150	% Recov	70.000	130.000				02/20/08
MSD	Aluminum	7429-90-5	383.45	95.862	% Recov	70.000	130.000				02/20/08
MSD	Arsenic	7440-38-2	40.02	100.050	% Recov	70.000	130.000				02/20/08
MSD	Thallium	7440-28-0	39.32	98.300	% Recov	70.000	130.000				02/20/08
MSD	Uranium	7440-61-1	41.4	103.500	% Recov	70.000	130.000				02/20/08
SPK-RPD	Aluminum	7429-90-5	95.862		RPD			8.896	20.000		02/21/08
SPK-RPD	Arsenic	7440-38-2	100.050		RPD			4.447	20.000		02/21/08
SPK-RPD	Thallium	7440-28-0	98.300		RPD			3.645	20.000		02/21/08
SPK-RPD	Uranium	7440-61-1	103.500		RPD			4.394	20.000		02/21/08
Lab ID: W08P000519											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Aluminum	7429-90-5	407.6	101.900	% Recov	70.000	130.000				02/20/08
MS	Arsenic	7440-38-2	40.26	100.650	% Recov	70.000	130.000				02/20/08
MS	Thallium	7440-28-0	40.41	101.025	% Recov	70.000	130.000				02/20/08
MS	Uranium	7440-61-1	41.3	103.250	% Recov	70.000	130.000				02/20/08
MSD	Aluminum	7429-90-5	411.9	102.975	% Recov	70.000	130.000				02/20/08
MSD	Arsenic	7440-38-2	39.49	98.725	% Recov	70.000	130.000				02/20/08
MSD	Thallium	7440-28-0	39.98	99.950	% Recov	70.000	130.000				02/20/08
MSD	Uranium	7440-61-1	40.94	102.350	% Recov	70.000	130.000				02/20/08
SPK-RPD	Aluminum	7429-90-5	102.975		RPD			1.049	20.000		02/21/08
SPK-RPD	Arsenic	7440-38-2	98.725		RPD			1.931	20.000		02/21/08
SPK-RPD	Thallium	7440-28-0	99.950		RPD			1.070	20.000		02/21/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080207
Matrix: WATER
Test: ICP-200.8 MS All possible meta

Sample Date: 02/06/08
Receive Date:02/06/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	Uranium	7440-61-1	102.350		RPD			0.875	20.000		02/21/08
Lab ID: W08P000521											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Aluminum	7429-90-5	387.4	96.850	% Recov	70.000	130.000				02/20/08
MS	Arsenic	7440-38-2	41.56	103.900	% Recov	70.000	130.000				02/20/08
MS	Thallium	7440-28-0	40.56	101.400	% Recov	70.000	130.000				02/20/08
MS	Uranium	7440-61-1	43.16	107.900	% Recov	70.000	130.000				02/20/08
MSD	Aluminum	7429-90-5	388	97.000	% Recov	70.000	130.000				02/20/08
MSD	Arsenic	7440-38-2	39.68	99.200	% Recov	70.000	130.000				02/20/08
MSD	Thallium	7440-28-0	40.06	100.150	% Recov	70.000	130.000				02/20/08
MSD	Uranium	7440-61-1	42.49	106.225	% Recov	70.000	130.000				02/20/08
SPK-RPD	Aluminum	7429-90-5	97.000		RPD			0.155	20.000		02/21/08
SPK-RPD	Arsenic	7440-38-2	99.200		RPD			4.628	20.000		02/21/08
SPK-RPD	Thallium	7440-28-0	100.150		RPD			1.240	20.000		02/21/08
SPK-RPD	Uranium	7440-61-1	106.225		RPD			1.565	20.000		02/21/08
Lab ID: W08P000530											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Lead	7439-92-1	40.43	101.075	% Recov	70.000	130.000				02/20/08
MSD	Lead	7439-92-1	40.19	100.475	% Recov	70.000	130.000				02/20/08
SPK-RPD	Lead	7439-92-1	100.475		RPD			0.595	20.000		02/21/08
BATCH QC											
BLANK	Aluminum	7429-90-5	<5	n/a	ug/L	-999.000	999.000			U	02/20/08
BLANK	Arsenic	7440-38-2	<0.4	n/a	ug/L					U	02/20/08
BLANK	Lead	7439-92-1	<0.1	n/a	ug/L					U	02/20/08
BLANK	Thallium	7440-28-0	<0.1	n/a	ug/L					U	02/20/08
BLANK	Uranium	7440-61-1	<5e-2	n/a	ug/L					U	02/20/08
LCS	Aluminum	7429-90-5	409.1	102.275	% Recov	85.000	115.000				02/20/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Inorganic**

SDG Number: WSCF20080207
Matrix: WATER
Test: Total Alkalinity as mg/L CaCO3

Sample Date: 02/04/08
Receive Date:02/04/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P000486											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Total Alkalinity as mg/L CaCO3	ALKALINITY	138.4		RPD			3.339	20.000		02/14/08
BATCH QC											
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	112.5	97.826	%Recove	80.000	120.000				02/14/08
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	112.5	97.826	%Recove	80.000	120.000				02/14/08
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	114.8	99.826	%Recove	80.000	120.000				02/14/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080207
Matrix: WATER
Test: Total Organic Carbon

Sample Date: 02/06/08
Receive Date:02/06/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P000522											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Total Organic Carbon	TOC	0.8995	89.950	% Recov	75.000	125.000				03/04/08
MSD	Total Organic Carbon	TOC	0.8995	89.950	% Recov	75.000	125.000				03/04/08
SPK-RPD	Total Organic Carbon	TOC	89.950		RPD			0.000	20.000		03/04/08
BATCH QC											
BLANK	Total Organic Carbon	TOC	0.04876	0.049	mg/L	0.000	300.000				03/04/08
METHSPIKE	Total Organic Carbon	TOC	0.9832	98.320	% Recov	80.000	120.000				03/04/08
SPK-RSD	Total Organic Carbon	TOC	0.6125	0.613	% RSD	0.000	20.000				03/04/08
Lab ID: W08P000552											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Total Organic Carbon	TOC	0.8995	89.950	% Recov	75.000	125.000				03/04/08
MSD	Total Organic Carbon	TOC	0.8995	89.950	% Recov	75.000	125.000				03/04/08
SPK-RPD	Total Organic Carbon	TOC	89.950		RPD			0.000	20.000		03/04/08
BATCH QC											
BLANK	Total Organic Carbon	TOC	0.04876	0.049	mg/L	0.000	300.000				03/04/08
METHSPIKE	Total Organic Carbon	TOC	0.9832	98.320	% Recov	80.000	120.000				03/04/08
SPK-RSD	Total Organic Carbon	TOC	0.6125	0.613	% RSD	0.000	20.000				03/04/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080207
Matrix: WATER
Test: Total Organic Halides

Sample Date: 02/06/08
Receive Date:02/06/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P000522											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Total Organic Halides	TOX	33.8	84.500	% Recov	50.000	150.000				03/05/08
MSD	Total Organic Halides	TOX	34.9	87.250	% Recov	50.000	150.000				03/05/08
SPK-RPD	Total Organic Halides	TOX	87.250		RPD			3.202	20.000		03/05/08
Lab ID: W08P000556											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Total Organic Halides	TOX	36.5	91.250	% Recov	50.000	150.000				03/05/08
MSD	Total Organic Halides	TOX	35.2	88.000	% Recov	50.000	150.000				03/05/08
SPK-RPD	Total Organic Halides	TOX	88.000		RPD			3.626	20.000		03/05/08
BATCH QC											
BLANK	Total Organic Halides	TOX	< 5	n/a	ug/L	0.000	300.000			U	03/05/08
LCS	Total Organic Halides	TOX	374	93.500	%rec	80.000	120.000				03/05/08

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent E6-35

Group #: WSCF20080207
Department: Inorganic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		SVOA: Surrogate failures are on an unrelated sample. "J" flagged compounds are estimates because the concentration is too low for accurate quantitation. cgc H-3 batch LCS is flagged for the poor LCS recovery. Since all the other QC chekcs came out fine, this batch has been approved. lmh Gross beta duplicate is flagged for poor RPD. Since all the other QC checks came out fine, this batch has been approved. lmh W08P000519, W08P000521/Pu242 (tracer recovery) is flagged for the Blank, LCS, and Sample W08P000519. The low tracer recovery did not significantly effect the quality of the sample results so this batch has been approved. ICP-AES: [Samples W08P508-515; 518-21; 530-531] Magnesium, sodium, and calcium sample results beyond effective spike range (spike recoveries marked "NA"). Check standard 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

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WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent E6-35

Group #: WSCF20080207
Department: Inorganic

Sample #	Client ID	Lab Area	Test	Comment
				ICP-AES: [Samples W08P532-33; 539; 550-551; 560-564] High magnesium and antimony preparation blank result; "C" flag if applicable. Magnesium, sodium, and calcium sample results beyond effective spike range (spike recoveries marked "NA"). Check and high standards used to ensure magnesium, sodium, and calcium linearity because sample results are greater than the calibration standard.
				TOX: X-Flag indicates greater than 10% Carbon Column break-through observed for the sample. Triplicate analysis verfies sample effect. gar

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000509
Client ID: B1RCJ0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Organic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
SW-846 8270C Semi-Vols Prep											**02/11/08**
SW-846 8270C Semi-Vols											
4-Nitrophenol	100-02-7	LA-523-456	U	< 0.950	ug/L			1.00	0.95		02/13/08
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	< 1.30	ug/L			1.00	1.3		02/13/08
Phenol	108-95-2	LA-523-456	U	< 0.480	ug/L			1.00	0.48		02/13/08
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	< 2.10	ug/L			1.00	2.1		02/13/08
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	< 0.480	ug/L			1.00	0.48		02/13/08
Pyrene	129-00-0	LA-523-456	U	< 0.480	ug/L			1.00	0.48		02/13/08
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	< 0.480	ug/L			1.00	0.48		02/13/08
N-Nitrosodi-n-dipropylamine	621-64-7	LA-523-456	U	< 0.570	ug/L			1.00	0.57		02/13/08
Acenaphthene	83-32-9	LA-523-456	U	< 2.50	ug/L			1.00	2.5		02/13/08
Pentachlorophenol	87-86-5	LA-523-456	U	< 1.40	ug/L			1.00	1.4		02/13/08
2-Chlorophenol	95-57-8	LA-523-456	U	< 0.480	ug/L			1.00	0.48		02/13/08
Bis(2-ethylhexyl) phthalate	117-81-7	LA-523-456		9.50	ug/L			1.00	0.76		02/13/08
2,4-Dichlorophenol	120-83-2	LA-523-456	U	< 0.480	ug/L			1.00	0.48		02/13/08
2-Nitrophenol	88-75-5	LA-523-456	U	< 0.480	ug/L			1.00	0.48		02/13/08
Naphthalene	91-20-3	LA-523-456	U	< 2.00	ug/L			1.00	2.0		02/13/08
2-Methylphenol (cresol, o-)	95-48-7	LA-523-456	U	< 0.480	ug/L			1.00	0.48		02/13/08
3 & 4 Methylphenol Total	65794-96-9	LA-523-456	U	< 0.480	ug/L			1.00	0.48		02/13/08
Tributyl phosphate	126-73-8	LA-523-456	U	< 0.480	ug/L			1.00	0.48		02/13/08
Benzothiazole	95-16-9	LA-523-456	U	< 0.570	ug/L			1.00	0.57		02/13/08
2-Picoline	109-06-8	LA-523-456	U	< 4.80	ug/L			1.00	4.8		02/13/08
Tris-2-chloroethyl phosphate	115-96-8	LA-523-456	U	< 0.620	ug/L			1.00	0.62		02/13/08
VOA Ground Water Protection											
1,1-Dichloroethene	75-35-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000509
Client ID: B1RCJ0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Organic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Chloroform	67-66-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1-Butanol	71-36-3	LA-523-455	U	< 100	ug/L			1.00	1.0e+02		02/12/08
Tetrahydrofuran	109-99-9	LA-523-455	U	< 2.00	ug/L			1.00	2.0		02/12/08
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Ethyl cyanide	107-12-0	LA-523-455	U	< 2.00	ug/L			1.00	2.0		02/12/08
1,4-Dichlorobenzene	106-46-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
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X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000519
Client ID: B1RCL6 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Organic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Chloroform	67-66-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1-Butanol	71-36-3	LA-523-455	U	< 100	ug/L			1.00	1.0e+02		02/12/08
Tetrahydrofuran	109-99-9	LA-523-455	U	< 2.00	ug/L			1.00	2.0		02/12/08
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Ethyl cyanide	107-12-0	LA-523-455	U	< 2.00	ug/L			1.00	2.0		02/12/08
1,4-Dichlorobenzene	106-46-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
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U - Analyzed for but not detected above limiting criteria.(org)

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J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000521
Client ID: B1RCL0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Organic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
SW-846 8270C Semi-Vols Prep											**02/11/08**
SW-846 8270C Semi-Vols											
4-Nitrophenol	100-02-7	LA-523-456	U	< 0.950	ug/L			1.00	0.95		02/13/08
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	< 1.30	ug/L			1.00	1.3		02/13/08
Phenol	108-95-2	LA-523-456	U	< 0.480	ug/L			1.00	0.48		02/13/08
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	< 2.10	ug/L			1.00	2.1		02/13/08
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	< 0.480	ug/L			1.00	0.48		02/13/08
Pyrene	129-00-0	LA-523-456	U	< 0.480	ug/L			1.00	0.48		02/13/08
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	< 0.480	ug/L			1.00	0.48		02/13/08
N-Nitrosodi-n-dipropylamine	621-64-7	LA-523-456	U	< 0.570	ug/L			1.00	0.57		02/13/08
Acenaphthene	83-32-9	LA-523-456	U	< 2.50	ug/L			1.00	2.5		02/13/08
Pentachlorophenol	87-86-5	LA-523-456	U	< 1.40	ug/L			1.00	1.4		02/13/08
2-Chlorophenol	95-57-8	LA-523-456	U	< 0.480	ug/L			1.00	0.48		02/13/08
Bis(2-ethylhexyl) phthalate	117-81-7	LA-523-456	J	3.40	ug/L			1.00	0.76		02/13/08
2,4-Dichlorophenol	120-83-2	LA-523-456	U	< 0.480	ug/L			1.00	0.48		02/13/08
2-Nitrophenol	88-75-5	LA-523-456	U	< 0.480	ug/L			1.00	0.48		02/13/08
Naphthalene	91-20-3	LA-523-456	U	< 2.00	ug/L			1.00	2.0		02/13/08
2-Methylphenol (cresol, o-)	95-48-7	LA-523-456	U	< 0.480	ug/L			1.00	0.48		02/13/08
3 & 4 Methylphenol Total	65794-96-9	LA-523-456	U	< 0.480	ug/L			1.00	0.48		02/13/08
Tributyl phosphate	126-73-8	LA-523-456	U	< 0.480	ug/L			1.00	0.48		02/13/08
Benzothiazole	95-16-9	LA-523-456	U	< 0.570	ug/L			1.00	0.57		02/13/08
2-Picoline	109-06-8	LA-523-456	U	< 4.80	ug/L			1.00	4.8		02/13/08
Tris-2-chloroethyl phosphate	115-96-8	LA-523-456	U	< 0.620	ug/L			1.00	0.62		02/13/08
VOA Ground Water Protection											
1,1-Dichloroethene	75-35-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08

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)
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U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000521
Client ID: B1RCL0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Organic
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Chloroform	67-66-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1-Butanol	71-36-3	LA-523-455	U	< 100	ug/L			1.00	1.0e+02		02/12/08
Tetrahydrofuran	109-99-9	LA-523-455	U	< 2.00	ug/L			1.00	2.0		02/12/08
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Ethyl cyanide	107-12-0	LA-523-455	U	< 2.00	ug/L			1.00	2.0		02/12/08
1,4-Dichlorobenzene	106-46-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08

MDL=Minimum Detection Limit
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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-017
Sample # W08P000535
Client ID: B1RRJ0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Organic
Sampled: 02/06/08
Received: 02/06/08

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		02/12/08
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,2-Dichloroethane	107-06-2	LA 523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Chloroform	67-66-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1-Butanol	71-36-3	LA-523-455	U	< 100	ug/L			1.00	1.0e+02		02/12/08
Tetrahydrofuran	109-99-9	LA-523-455	U	< 2.00	ug/L			1.00	2.0		02/12/08
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-017
Sample # W08P000535
Client ID: B1RRJ0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Organic
Sampled: 02/06/08
Received: 02/06/08

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		02/12/08
1,4-Dichlorobenzene	106-46-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-002
Sample # W08P000540
Client ID: B1TBF0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Organic
Sampled: 02/06/08
Received: 02/06/08

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		02/12/08
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Chloroform	67-66-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1-Butanol	71-36-3	LA-523-455	U	< 100	ug/L			1.00	1.0e+02		02/12/08
Tetrahydrofuran	109-99-9	LA-523-455	U	< 2.00	ug/L			1.00	2.0		02/12/08
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-002
Sample # W08P000540
Client ID: B1TBF0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Organic
Sampled: 02/06/08
Received: 02/06/08

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		02/12/08
1,4-Dichlorobenzene	106-46-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-018
Sample # W08P000541
Client ID: B1RTD8 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Organic
Sampled: 02/06/08
Received: 02/06/08

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		02/13/08
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Chloroform	67-66-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
1-Butanol	71-36-3	LA-523-455	U	< 100	ug/L			1.00	1.0e+02		02/13/08
Tetrahydrofuran	109-99-9	LA-523-455	U	< 2.00	ug/L			1.00	2.0		02/13/08
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-018
Sample # W08P000541
Client ID: B1RTD8 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Organic
Sampled: 02/06/08
Received: 02/06/08

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		02/13/08
1,4-Dichlorobenzene	106-46-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-018
Sample # W08P000542
Client ID: B1RTD9 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Organic
Sampled: 02/06/08
Received: 02/06/08

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		02/13/08
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Chloroform	67-66-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
1-Butanol	71-36-3	LA-523-455	U	< 100	ug/L			1.00	1.0e+02		02/13/08
Tetrahydrofuran	109-99-9	LA-523-455	U	< 2.00	ug/L			1.00	2.0		02/13/08
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08

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

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X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-018
Sample # W08P000542
Client ID: B1RTD9 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Organic
Sampled: 02/06/08
Received: 02/06/08

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		02/13/08
1,4-Dichlorobenzene	106-46-7	LA 523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-017
Sample # W08P000544
Client ID: B1RRH7 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Organic
Sampled: 02/06/08
Received: 02/06/08

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		02/13/08
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Carbon tetrachloride	56-23-5	LA-523-455	J	1.70	ug/L			1.00	1.0		02/13/08
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Chloroform	67-66-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
1-Butanol	71-36-3	LA-523-455	U	< 100	ug/L			1.00	1.0e+02		02/13/08
Tetrahydrofuran	109-99-9	LA-523-455	U	< 2.00	ug/L			1.00	2.0		02/13/08
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-017
Sample # W08P000544
Client ID: B1RRH7 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Organic
Sampled: 02/06/08
Received: 02/06/08

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		02/13/08
1,4-Dichlorobenzene	106-46-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-017
Sample # W08P000546
Client ID: B1RRH5 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Organic
Sampled: 02/06/08
Received: 02/06/08

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		02/13/08
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Carbon tetrachloride	56-23-5	LA-523-455	J	1.80	ug/L			1.00	1.0		02/13/08
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Chloroform	67-66-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
1-Butanol	71-36-3	LA-523-455	U	< 100	ug/L			1.00	1.0e+02		02/13/08
Tetrahydrofuran	109-99-9	LA-523-455	U	< 2.00	ug/L			1.00	2.0		02/13/08
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08

MDL=Minimum Detection Limit
RQ=Result Qualifier
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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-017
Sample # W08P000546
Client ID: B1RRH5 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Organic
Sampled: 02/06/08
Received: 02/06/08

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		02/13/08
1,4-Dichlorobenzene	106-46-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/13/08

MDL=Minimum Detection Limit
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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000563
Client ID: B1RVW7 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Organic
Sampled: 02/06/08
Received: 02/06/08

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		02/12/08
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Chloroform	67-66-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
1-Butanol	71-36-3	LA-523-455	U	< 100	ug/L			1.00	1.0e+02		02/12/08
Tetrahydrofuran	109-99-9	LA-523-455	U	< 2.00	ug/L			1.00	2.0		02/12/08
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-001
Sample # W08P000563
Client ID: B1RVW7 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Organic
Sampled: 02/06/08
Received: 02/06/08

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		02/12/08
1,4-Dichlorobenzene	106-46-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		02/12/08

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

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U - Analyzed for but not detected above limiting criteria.(org)

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080207
Matrix: WATER
Test: SW-846 8270C Semi-Vols

Sample Date: 02/06/08
Receive Date:02/06/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P000509											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	2-Fluorophenol(Surr)	367-12-4	15.567	81.700	% Recov	50.000	110.000				02/13/08
SURR	2-Fluorobiphenyl(Surr)	321-60-8	17.146	90.000	% Recov	58.000	109.000				02/13/08
SURR	Nitrobenzene-d5(Surr)	4165-60-0	16.171	84.900	% Recov	60.000	118.000				02/13/08
SURR	Phenol-d5(Surr)	4165-62-2	15.818	83.000	% Recov	59.000	116.000				02/13/08
SURR	2,4,6-Tribromophenol(Surr)	118-79-6	16.570	87.000	% Recov	60.000	120.000				02/13/08
SURR	Terphenyl-d14(Surr)	98904-43-9	19.646	103.000	% Recov	60.000	120.000				02/13/08
Lab ID: W08P000519											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	2-Fluorophenol(Surr)	367-12-4	17.427	91.500	% Recov	50.000	110.000				02/13/08
SURR	2-Fluorobiphenyl(Surr)	321-60-8	17.640	92.600	% Recov	58.000	109.000				02/13/08
SURR	Nitrobenzene-d5(Surr)	4165-60-0	17.852	93.700	% Recov	60.000	118.000				02/13/08
SURR	Phenol-d5(Surr)	4165-62-2	17.428	91.500	% Recov	59.000	116.000				02/13/08
SURR	2,4,6-Tribromophenol(Surr)	118-79-6	16.062	84.300	% Recov	60.000	120.000				02/13/08
SURR	Terphenyl-d14(Surr)	98904-43-9	20.991	110.000	% Recov	60.000	120.000				02/13/08
Lab ID: W08P000521											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	1,2,4-Trichlorobenzene	120-82-1	17.494	91.800	% Recov	50.000	120.000				02/13/08
MS	1,4-Dichlorobenzene	106-46-7	16.689	87.600	% Recov	41.000	113.000				02/13/08
MS	2,4-Dinitrotoluene	121-14-2	18.003	94.500	% Recov	65.000	109.000				02/13/08
MS	2-Fluorophenol(Surr)	367-12-4	17.452	91.600	% Recov	50.000	110.000				02/13/08
MS	Acenaphthene	83-32-9	18.633	97.800	% Recov	62.000	112.000				02/13/08
MS	4-Chloro-3-methylphenol	59-50-7	25.246	88.400	% Recov	59.000	115.000				02/13/08
MS	2-Chlorophenol	95-57-8	26.828	93.900	% Recov	69.000	111.000				02/13/08
MS	N-Nitrosodi-n-dipropylamine	621-64-7	16.850	88.500	% Recov	69.000	115.000				02/13/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080207
Matrix: WATER
Test: SW-846 8270C Semi-Vols

Sample Date: 02/06/08
Receive Date:02/06/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	2-Fluorobiphenyl(Surr)	321-60-8	18.465	96.900	% Recov	58.000	109.000				02/13/08
MS	Phenol	108-95-2	26.787	93.800	% Recov	59.000	115.000				02/13/08
MS	Nitrobenzene-d5(Surr)	4165-60-0	17.669	92.800	% Recov	60.000	118.000				02/13/08
MS	4-Nitrophenol	100-02-7	22.670	79.300	% Recov	32.000	130.000				02/13/08
MS	Pentachlorophenol	87-86-5	23.499	82.200	% Recov	51.000	121.000				02/13/08
MS	Phenol-d5(Surr)	4165-62-2	17.626	92.500	% Recov	59.000	116.000				02/13/08
MS	Pyrene	129-00-0	19.466	102.000	% Recov	58.000	116.000				02/13/08
MS	2,4,6-Tribromophenol(Surr)	118-79-6	16.057	84.300	% Recov	60.000	120.000				02/13/08
MS	Terphenyl-d14(Surr)	98904-43-9	18.288	96.000	% Recov	60.000	120.000				02/13/08
MSD	1,2,4-Trichlorobenzene	120-82-1	15.952	83.700	% Recov	50.000	120.000				02/13/08
MSD	1,4-Dichlorobenzene	106-46-7	15.006	78.800	% Recov	41.000	113.000				02/13/08
MSD	2,4-Dinitrotoluene	121-14-2	16.770	88.000	% Recov	65.000	109.000				02/13/08
MSD	2-Fluorophenol(Surr)	367-12-4	17.360	91.100	% Recov	50.000	110.000				02/13/08
MSD	Acenaphthene	83-32-9	17.673	92.800	% Recov	62.000	112.000				02/13/08
MSD	4-Chloro-3-methylphenol	59-50-7	25.149	88.000	% Recov	59.000	115.000				02/13/08
MSD	2-Chlorophenol	95-57-8	25.043	87.700	% Recov	69.000	111.000				02/13/08
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	15.450	81.100	% Recov	69.000	115.000				02/13/08
MSD	2-Fluorobiphenyl(Surr)	321-60-8	17.896	94.000	% Recov	58.000	109.000				02/13/08
MSD	Phenol	108-95-2	25.635	89.700	% Recov	59.000	115.000				02/13/08
MSD	Nitrobenzene-d5(Surr)	4165-60-0	17.538	92.100	% Recov	60.000	118.000				02/13/08
MSD	4-Nitrophenol	100-02-7	23.190	81.200	% Recov	32.000	130.000				02/13/08
MSD	Pentachlorophenol	87-86-5	22.084	77.300	% Recov	51.000	121.000				02/13/08
MSD	Phenol-d5(Surr)	4165-62-2	17.315	90.900	% Recov	59.000	116.000				02/13/08
MSD	Pyrene	129-00-0	18.626	97.800	% Recov	58.000	116.000				02/13/08
MSD	2,4,6-Tribromophenol(Surr)	118-79-6	16.209	85.100	% Recov	60.000	120.000				02/13/08
MSD	Terphenyl-d14(Surr)	98904-43-9	19.401	102.000	% Recov	60.000	120.000				02/13/08
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	83.700		RPD			9.231	25.000		02/13/08
SPK-RPD	1,4-Dichlorobenzene	106-46-7	78.800		RPD			10.577	25.000		02/13/08
SPK-RPD	2,4-Dinitrotoluene	121-14-2	88.000		RPD			7.123	25.000		02/13/08
SPK-RPD	2-Fluorophenol(Surr)	367-12-4	91.100		RPD			0.547	25.000		02/13/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080207
Matrix: WATER
Test: SW-846 8270C Semi-Vols

Sample Date: 02/06/08
Receive Date:02/06/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	Acenaphthene	83-32-9	92.800		RPD			5.247	25.000		02/13/08
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	88.000		RPD			0.454	25.000		02/13/08
SPK-RPD	2-Chlorophenol	95-57-8	87.700		RPD			6.828	25.000		02/13/08
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	81.100		RPD			8.726	25.000		02/13/08
SPK-RPD	2-Fluorobiphenyl(Surr)	321-60-8	94.000		RPD			3.038	25.000		02/13/08
SPK-RPD	Phenol	108-95-2	89.700		RPD			4.469	16.000		02/13/08
SPK-RPD	Nitrobenzene-d5(Surr)	4165-60-0	92.100		RPD			0.757	25.000		02/13/08
SPK-RPD	4-Nitrophenol	100-02-7	81.200		RPD			2.368	25.000		02/13/08
SPK-RPD	Pentachlorophenol	87-86-5	77.300		RPD			6.144	25.000		02/13/08
SPK-RPD	Phenol-d5(Surr)	4165-62-2	90.900		RPD			1.745	25.000		02/13/08
SPK-RPD	Pyrene	129-00-0	97.800		RPD			4.204	25.000		02/13/08
SPK-RPD	2,4,6-Tribromophenol(Surr)	118-79-6	85.100		RPD			0.945	25.000		02/13/08
SPK-RPD	Terphenyl-d14(Surr)	98904-43-9	102.000		RPD			6.061	25.000		02/13/08
SURR	2-Fluorophenol(Surr)	367-12-4	17.182	90.200	% Recov	50.000	110.000				02/13/08
SURR	2-Fluorobiphenyl(Surr)	321-60-8	18.844	98.900	% Recov	58.000	109.000				02/13/08
SURR	Nitrobenzene-d5(Surr)	4165-60-0	17.969	94.300	% Recov	60.000	118.000				02/13/08
SURR	Phenol-d5(Surr)	4165-62-2	17.419	91.400	% Recov	59.000	116.000				02/13/08
SURR	2,4,6-Tribromophenol(Surr)	118-79-6	16.439	86.300	% Recov	60.000	120.000				02/13/08
SURR	Terphenyl-d14(Surr)	98904-43-9	20.385	107.000	% Recov	60.000	120.000				02/13/08

BATCH QC

BLANK	1,2,4-Trichlorobenzene	120-82-1	< 2.2	n/a	ug/L					U	02/13/08
BLANK	1,4-Dichlorobenzene	106-46-7	< 1.4	n/a	ug/L					U	02/13/08
BLANK	2,4-Dichlorophenol	120-83-2	< 0.50	n/a	ug/L					U	02/13/08
BLANK	2,4-Dinitrotoluene	121-14-2	< 0.50	n/a	ug/L					U	02/13/08
BLANK	2-Fluorophenol(Surr)	367-12-4	17.775	88.900	% Recov	50.000	110.000				02/13/08
BLANK	2-Methylphenol (cresol, o-)	95-48-7	< 0.50	n/a	ug/L					U	02/13/08
BLANK	2-Nitrophenol	88-75-5	< 0.50	n/a	ug/L					U	02/13/08
BLANK	2-Picoline	109-06-8	< 5.0	n/a	ug/L					U	02/13/08
BLANK	3 & 4 Methylphenol Total	65794-96-9	< 0.50	n/a	ug/L	0.000	5.000			U	02/13/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080207
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
BLANK	Acenaphthene	83-32-9	< 2.6	n/a	ug/L					U	02/13/08
BLANK	Bis(2-ethylhexyl) phthalate	117-81-7	< 0.80	n/a	ug/L					U	02/13/08
BLANK	Benzothiazole	95-16-9	< 0.60	n/a	ug/L	0.000	300.000			U	02/13/08
BLANK	4-Chloro-3-methylphenol	59-50-7	< 0.50	n/a	ug/L					U	02/13/08
BLANK	2-Chlorophenol	95-57-8	< 0.50	n/a	ug/L					U	02/13/08
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 0.60	n/a	ug/L					U	02/13/08
BLANK	2-Fluorobiphenyl(Surr)	321-60-8	18.590	93.000	% Recov	58.000	109.000				02/13/08
BLANK	Phenol	108-95-2	< 0.50	n/a	ug/L					U	02/13/08
BLANK	Naphthalene	91-20-3	< 2.1	n/a	ug/L					U	02/13/08
BLANK	Nitrobenzene-d5(Surr)	4165-60-0	18.691	93.500	% Recov	60.000	118.000				02/13/08
BLANK	4-Nitrophenol	100-02-7	< 1.0	n/a	ug/L					U	02/13/08
BLANK	Pentachlorophenol	87-86-5	< 1.5	n/a	ug/L					U	02/13/08
BLANK	Phenol-d5(Surr)	4165-62-2	17.956	89.800	% Recov	59.000	116.000				02/13/08
BLANK	Pyrene	129-00-0	< 0.50	n/a	ug/L					U	02/13/08
BLANK	Tris-2-chloroethyl phosphate	115-96-8	< 0.65	n/a	ug/L	0.000	300.000			U	02/13/08
BLANK	Tributyl phosphate	126-73-8	< 0.50	n/a	ug/L					U	02/13/08
BLANK	2,4,6-Tribromophenol(Surr)	118-79-6	16.516	82.600	% Recov	60.000	120.000				02/13/08
BLANK	Terphenyl-d14(Surr)	98904-43-9	19.734	98.700	% Recov	60.000	120.000				02/13/08
LCS	1,2,4-Trichlorobenzene	120-82-1	17.974	89.900	% Recov	46.000	107.000				02/13/08
LCS	1,4-Dichlorobenzene	106-46-7	17.341	86.700	% Recov	42.000	111.000				02/13/08
LCS	2,4-Dinitrotoluene	121-14-2	19.497	97.500	% Recov	59.000	106.000				02/13/08
LCS	2-Fluorophenol(Surr)	367-12-4	19.130	95.600	% Recov	50.000	110.000				02/13/08
LCS	Acenaphthene	83-32-9	20.584	103.000	% Recov	61.000	116.000				02/13/08
LCS	4-Chloro-3-methylphenol	59-50-7	27.957	93.200	% Recov	61.000	106.000				02/13/08
LCS	2-Chlorophenol	95-57-8	29.228	97.400	% Recov	66.000	106.000				02/13/08
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	18.219	91.100	% Recov	71.000	114.000				02/13/08
LCS	2-Fluorobiphenyl(Surr)	321-60-8	19.782	98.900	% Recov	58.000	109.000				02/13/08
LCS	Phenol	108-95-2	29.867	99.600	% Recov	67.000	105.000				02/13/08
LCS	Nitrobenzene-d5(Surr)	4165-60-0	19.545	97.700	% Recov	60.000	118.000				02/13/08
LCS	4-Nitrophenol	100-02-7	25.388	84.600	% Recov	32.000	118.000				02/13/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080207
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	Pentachlorophenol	87-86-5	25.702	85.700	% Recov	62.000	114.000				02/13/08
LCS	Phenol-d5(Surr)	4165-62-2	19.576	97.900	% Recov	59.000	116.000				02/13/08
LCS	Pyrene	129-00-0	20.346	102.000	% Recov	66.000	118.000				02/13/08
LCS	2,4,6-Tribromophenol(Surr)	118-79-6	18.304	91.500	% Recov	60.000	120.000				02/13/08
LCS	Terphenyl-d14(Surr)	98904-43-9	20.864	104.000	% Recov	60.000	120.000				02/13/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080207
Matrix: WATER
Test: VOA Ground Water Protection

Sample Date: 02/06/08
Receive Date:02/06/08

Lab ID: W08P000509
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	1,1-Dichloroethene	75-35-4	25.040	100.000	% Recov	63.000	117.000				02/12/08
MS	Benzene	71-43-2	25.260	101.000	% Recov	75.000	129.000				02/12/08
MS	4-Bromofluorobenzene(Surr)	460-00-4	49.300	98.600	% Recov	75.000	125.000				02/12/08
MS	Chlorobenzene	108-90-7	25.360	101.000	% Recov	79.000	119.000				02/12/08
MS	1,2-Dichloroethane-d4(Surr)	17060-07-0	50.510	101.000	% Recov	75.000	125.000				02/12/08
MS	Toluene-d8(Surr)	2037-26-5	51.110	102.000	% Recov	75.000	125.000				02/12/08
MS	Toluene	108-88-3	25.450	102.000	% Recov	76.000	120.000				02/12/08
MS	Trichloroethene	79-01-6	21.910	87.600	% Recov	73.000	123.000				02/12/08
MSD	1,1-Dichloroethene	75-35-4	25.780	103.000	% Recov	63.000	117.000				02/12/08
MSD	Benzene	71-43-2	25.790	103.000	% Recov	75.000	129.000				02/12/08
MSD	4-Bromofluorobenzene(Surr)	460-00-4	49.460	98.900	% Recov	75.000	125.000				02/12/08
MSD	Chlorobenzene	108-90-7	25.800	103.000	% Recov	79.000	119.000				02/12/08
MSD	1,2-Dichloroethane-d4(Surr)	17060-07-0	51.750	104.000	% Recov	75.000	125.000				02/12/08
MSD	Toluene-d8(Surr)	2037-26-5	51.150	102.000	% Recov	75.000	125.000				02/12/08
MSD	Toluene	108-88-3	25.980	104.000	% Recov	76.000	120.000				02/12/08
MSD	Trichloroethene	79-01-6	22.430	89.700	% Recov	73.000	123.000				02/12/08
SPK-RPD	1,1-Dichloroethene	75-35-4	103.000		RPD			2.956	20.000		02/12/08
SPK-RPD	Benzene	71-43-2	103.000		RPD			1.961	20.000		02/12/08
SPK-RPD	Chlorobenzene	108-90-7	103.000		RPD			1.961	20.000		02/12/08
SPK-RPD	1,2-Dichloroethane-d4(Surr)	17060-07-0	104.000		RPD			2.927	20.000		02/12/08
SPK-RPD	Toluene-d8(Surr)	2037-26-5	102.000		RPD			0.000	20.000		02/12/08
SPK-RPD	Toluene	108-88-3	104.000		RPD			1.942	20.000		02/12/08
SPK-RPD	Trichloroethene	79-01-6	89.700		RPD			2.369	20.000		02/12/08
SURR	4-Bromofluorobenzene(Surr)	460-00-4	49.680	99.400	% Recov	75.000	125.000				02/12/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	49.880	99.800	% Recov	75.000	125.000				02/12/08
SURR	Toluene-d8(Surr)	2037-26-5	51.580	103.000	% Recov	75.000	125.000				02/12/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080207
Matrix: WATER
Test: VOA Ground Water Protection

Sample Date: 02/06/08
Receive Date:02/06/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P000519											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	49.610	99.200	% Recov	75.000	125.000				02/12/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	49.960	99.900	% Recov	75.000	125.000				02/12/08
SURR	Toluene-d8(Surr)	2037-26-5	51.960	104.000	% Recov	75.000	125.000				02/12/08
Lab ID: W08P000521											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	49.440	98.900	% Recov	75.000	125.000				02/12/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	51.650	103.000	% Recov	75.000	125.000				02/12/08
SURR	Toluene-d8(Surr)	2037-26-5	52.010	104.000	% Recov	75.000	125.000				02/12/08
Lab ID: W08P000535											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	48.920	97.800	% Recov	75.000	125.000				02/12/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	50.430	101.000	% Recov	75.000	125.000				02/12/08
SURR	Toluene-d8(Surr)	2037-26-5	51.940	104.000	% Recov	75.000	125.000				02/12/08
Lab ID: W08P000540											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	49.670	99.300	% Recov	75.000	125.000				02/12/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	51.530	103.000	% Recov	75.000	125.000				02/12/08
SURR	Toluene-d8(Surr)	2037-26-5	52.340	105.000	% Recov	75.000	125.000				02/12/08
Lab ID: W08P000541											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	49.300	98.600	% Recov	75.000	125.000				02/13/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	51.460	103.000	% Recov	75.000	125.000				02/13/08
SURR	Toluene-d8(Surr)	2037-26-5	52.540	105.000	% Recov	75.000	125.000				02/13/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080207
Matrix: WATER
Test: VOA Ground Water Protection

Sample Date: 02/06/08
Receive Date:02/06/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P000542											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	49.470	98.900	% Recov	75.000	125.000				02/13/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	51.350	103.000	% Recov	75.000	125.000				02/13/08
SURR	Toluene-d8(Surr)	2037-26-5	52.700	105.000	% Recov	75.000	125.000				02/13/08
Lab ID: W08P000544											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	49.870	99.700	% Recov	75.000	125.000				02/13/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	51.330	103.000	% Recov	75.000	125.000				02/13/08
SURR	Toluene-d8(Surr)	2037-26-5	53.020	106.000	% Recov	75.000	125.000				02/13/08
Lab ID: W08P000546											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	48.810	97.600	% Recov	75.000	125.000				02/13/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	52.200	104.000	% Recov	75.000	125.000				02/13/08
SURR	Toluene-d8(Surr)	2037-26-5	52.810	106.000	% Recov	75.000	125.000				02/13/08
Lab ID: W08P000563											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	49.430	98.900	% Recov	75.000	125.000				02/12/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	50.300	101.000	% Recov	75.000	125.000				02/12/08
SURR	Toluene-d8(Surr)	2037-26-5	51.820	104.000	% Recov	75.000	125.000				02/12/08
BATCH QC											
BLANK	1,1-Dichloroethane	75-34-3	< 1.0	n/a	ug/L					U	02/12/08
BLANK	1,1,1-Trichloroethane	71-55-6	< 1.0	n/a	ug/L					U	02/12/08
BLANK	1,1,2-Trichloroethane	79-00-5	< 1.0	n/a	ug/L					U	02/12/08
BLANK	1,1-Dichloroethene	75-35-4	< 1.0	n/a	ug/L					U	02/12/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080207
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	1,2-Dichloroethane	107-06-2	< 1.0	n/a	ug/L					U	02/12/08
BLANK	1,4-Dichlorobenzene	106-46-7	< 1.0	n/a	ug/L					U	02/12/08
BLANK	1-Butanol	71-36-3	< 100	n/a	ug/L					U	02/12/08
BLANK	4-Methyl-2-Pentanone	108-10-1	< 1.0	n/a	ug/L					U	02/12/08
BLANK	Acetone	67-64-1	< 1.0	n/a	ug/L					U	02/12/08
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/L					U	02/12/08
BLANK	4-Bromofluorobenzene(Surr)	460-00-4	49.090	98.200	% Recov	75.000	125.000				02/12/08
BLANK	Carbon disulfide	75-15-0	< 1.0	n/a	ug/L					U	02/12/08
BLANK	Carbon tetrachloride	56-23-5	< 1.0	n/a	ug/L					U	02/12/08
BLANK	Chloroform	67-66-3	< 1.0	n/a	ug/L					U	02/12/08
BLANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/L					U	02/12/08
BLANK	cis-1,2-Dichloroethylene	156-59-2	< 1.0	n/a	ug/L					U	02/12/08
BLANK	1,2-Dichloroethane-d4(Surr)	17060-07-0	48.630	97.300	% Recov	75.000	125.000				02/12/08
BLANK	trans-1,2-Dichloroethylene	156-60-5	< 1.0	n/a	ug/L					U	02/12/08
BLANK	Ethylbenzene	100-41-4	< 1.0	n/a	ug/L					U	02/12/08
BLANK	Ethyl cyanide	107-12-0	< 2.0	n/a	ug/L					U	02/12/08
BLANK	2-Butanone	78-93-3	< 1.0	n/a	ug/L					U	02/12/08
BLANK	Methylenechloride	75-09-2	< 1.0	n/a	ug/L					U	02/12/08
BLANK	Tetrachloroethene	127-18-4	< 1.0	n/a	ug/L					U	02/12/08
BLANK	Xylenes (total)	1330-20-7	< 1.0	n/a	ug/L	0.000	5.000			U	02/12/08
BLANK	Tetrahydrofuran	109-99-9	< 2.0	n/a	ug/L					U	02/12/08
BLANK	Toluene-d8(Surr)	2037-26-5	51.070	102.000	% Recov	75.000	125.000				02/12/08
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/L					U	02/12/08
BLANK	Trichloroethene	79-01-6	< 1.0	n/a	ug/L					U	02/12/08
BLANK	Vinyl chloride	75-01-4	< 1.0	n/a	ug/L					U	02/12/08
LCS	1,1-Dichloroethene	75-35-4	26.350	105.000	% Recov	75.000	125.000				02/13/08
LCS	Benzene	71-43-2	25.060	100.000	% Recov	75.000	125.000				02/13/08
LCS	4-Bromofluorobenzene(Surr)	460-00-4	48.290	96.600	% Recov	75.000	125.000				02/13/08
LCS	Chlorobenzene	108-90-7	25.320	101.000	% Recov	75.000	125.000				02/13/08
LCS	1,2-Dichloroethane-d4(Surr)	17060-07-0	50.830	102.000	% Recov	75.000	125.000				02/13/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080207
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
LCS	Toluene-d8(Surr)	2037-26-5	51.900	104.000	% Recov	75.000	125.000				02/13/08
LCS	Toluene	108-88-3	25.710	103.000	% Recov	75.000	125.000				02/13/08
LCS	Trichloroethene	79-01-6	21.280	85.100	% Recov	75.000	125.000				02/13/08

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000509
Client ID: B1RCJ0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Radiochemistry
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Neptunium by AEA											
Neptunium-237	13994-20-2	LA-508-471		0.0540	pCi/L	+-0.0432	pCi/L	1.00	0.024		02/28/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421	U	200	pCi/L	+-156	pCi/L	1.00	2.4e+02		02/21/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-010
Sample # W08P000511
Client ID: B1RB36 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Radiochemistry
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Gross Alpha on Alpha Plateau											
Gross alpha on alpha plateau	12587-46-1	LA-508-415	U	-5.400	pCi/L	+-5.400	pCi/L	1.00	7.000		02/19/08
Gross Alpha/Gross Beta (AB32)											
Gross beta	12587-47-2	LA-508-415		9.50	pCi/L	+-4.37	pCi/L	1.00	6.4		02/14/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		2.30e+03	pCi/L	+-506	pCi/L	1.00	2.4e+02		02/21/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000513
Client ID: B1RCJ4 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Radiochemistry
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Gamma Energy Analysis-grd H2O											
Antimony-125	14234-35-6	LA-508-481	U	10.8	pCi/L	+-11.7	pCi/L	1.00	21		02/22/08
Cobalt-60	10198-40-0	LA-508-481	U	0.960	pCi/L	+-4.20	pCi/L	1.00	7.7		02/22/08
Cesium-134	13967-70-9	LA-508-481	U	-1.99	pCi/L	+-4.30	pCi/L	1.00	7.3		02/22/08
Cesium-137	10045-97-3	LA-508-481	U	-0.278	pCi/L	+-2.78	pCi/L	1.00	7.8		02/22/08
Europium-152	14683-23-9	LA-508-481	U	2.17	pCi/L	+-13.0	pCi/L	1.00	22		02/22/08
Europium-154	15585-10-1	LA-508-481	U	-6.98	pCi/L	+-12.3	pCi/L	1.00	21		02/22/08
Europium-155	14391-16-3	LA-508-481	U	6.83	pCi/L	+-14.8	pCi/L	1.00	25		02/22/08
Potassium-40	13966-00-2	LA-508-481	U	48.0	pCi/L	+-72.9	pCi/L	1.00	1.4e+02		02/22/08
Ruthenium-106	13967-48-1	LA-508-481	U	14.5	pCi/L	+-39.1	pCi/L	1.00	70		02/22/08
Be-7 by GEA	13966-02-4	LA-508-481	U	-13.0	pCi/L	+-13.0	pCi/L	1.00	65		02/22/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421	U	-170	pCi/L	+-170	pCi/L	1.00	2.4e+02		02/21/08

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

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D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000515
Client ID: B1RCJ8 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Radiochemistry
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Gamma Energy Analysis-grd H2O											
Antimony-125	14234-35-6	LA-508-481	U	-7.40	pCi/L	+-13.9	pCi/L	1.00	23		02/12/08
Cobalt-60	10198-40-0	LA-508-481	U	-1.12	pCi/L	+-4.71	pCi/L	1.00	8.2		02/12/08
Cesium-134	13967-70-9	LA-508-481	U	-0.0192	pCi/L	+-0.192	pCi/L	1.00	9.1		02/12/08
Cesium-137	10045-97-3	LA-508-481	U	-4.61	pCi/L	+-5.26	pCi/L	1.00	8.4		02/12/08
Europium-152	14683-23-9	LA-508-481	U	-6.35	pCi/L	+-16.7	pCi/L	1.00	26		02/12/08
Europium-154	15585-10-1	LA-508-481	U	-9.42	pCi/L	+-13.5	pCi/L	1.00	22		02/12/08
Europium-155	14391-16-3	LA-508-481	U	-6.01	pCi/L	+-18.1	pCi/L	1.00	30		02/12/08
Potassium-40	13966-00-2	LA-508-481	U	-24.0	pCi/L	+-94.5	pCi/L	1.00	1.4e+02		02/12/08
Ruthenium-106	13967-48-1	LA-508-481	U	-37.4	pCi/L	+-47.6	pCi/L	1.00	77		02/12/08
Be-7 by GEA	13966-02-4	LA-508-481	U	-22.0	pCi/L	+-22.0	pCi/L	1.00	71		02/12/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421	U	-230	pCi/L	+-230	pCi/L	1.00	2.4e+02		02/21/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000519
Client ID: B1RCL6 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Radiochemistry
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Americium by AEA											
Americium-241	14596-10-2	LA-508-471	U	0.360	pCi/L	+-0.270	pCi/L	1.00	0.36		02/20/08
Am-243 tracer by AEA	AM243	LA-508-471		20.0	pCi/L			1.00	0.28		02/20/08
Plutonium Isotopics by AEA											
Plutonium-238	13981-16-3	LA-508-471	U	-0.160	pCi/L	+-0.429	pCi/L	1.00	0.80		02/20/08
Pu-239/240 by AEA	PU-239/240	LA-508-471	U	0.0260	pCi/L	+-0.116	pCi/L	1.00	0.25		02/20/08
Pu-242 tracer by AEA	PU242	LA-508-471		31.0	pCi/L			1.00	0.28		02/20/08
TC99 by Liquid Scin.											
Tc-99 by Liquid Scin.	14133-76-7	LA-508-421	U	1.70	pCi/L	+-3.60	pCi/L	1.00	5.9		02/15/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421	U	-140	pCi/L	+-146	pCi/L	1.00	2.4e+02		02/21/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: S08-012
Sample # W08P000521
Client ID: B1RCL0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Radiochemistry
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Americium by AEA											
Americium-241	14596-10-2	LA-508-471	U	0.0730	pCi/L	+-0.226	pCi/L	1.00	0.40		02/20/08
Am-243 tracer by AEA	AM243	LA-508-471		20.0	pCi/L			1.00	0.27		02/20/08
Plutonium Isotopics by AEA											
Plutonium-238	13981-16-3	LA-508-471	U	-0.0360	pCi/L	+-0.297	pCi/L	1.00	0.54		02/20/08
Pu-239/240 by AEA	PU-239/240	LA-508-471	U	0.0180	pCi/L	+-0.180	pCi/L	1.00	0.17		02/20/08
Pu-242 tracer by AEA	PU242	LA-508-471		31.0	pCi/L			1.00	0.048		02/20/08
TC99 by Liquid Scin.											
Tc-99 by Liquid Scin.	14133-76-7	LA-508-421		620	pCi/L	+-124	pCi/L	1.00	5.9		02/15/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		560	pCi/L	+-196	pCi/L	1.00	2.4e+02		02/21/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-017
Sample # W08P000535
Client ID: B1RRJ0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Radiochemistry
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Tc-99 by Liquid Scin.	14133-76-7	LA-508-421	U	1.80	pCi/L	+-3.51	pCi/L	1.00	5.9		02/15/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: A08-001
Sample # W08P000536
Client ID: B1RPY3 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Radiochemistry
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421	U	-180	pCi/L	+-180	pCi/L	1.00	2.4e+02		02/21/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: A08-001
Sample # W08P000537
Client ID: B1RPY0 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Radiochemistry
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		850	pCi/L	+-238	pCi/L	1.00	2.4e+02		02/21/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: A08-001
Sample # W08P000538
Client ID: B1RPY1 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Radiochemistry
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		960	pCi/L	+-259	pCi/L	1.00	2.4e+02		02/21/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-018
Sample # W08P000541
Client ID: B1RTD8 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Radiochemistry
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Tc-99 by Liquid Scin.	14133-76-7	LA-508-421		410	pCi/L	+-82.0	pCi/L	1.00	5.9		02/15/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-018
Sample # W08P000542
Client ID: B1RTD9 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Radiochemistry
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Tc-99 by Liquid Scin.	14133-76-7	LA-508-421		440	pCi/L	+-88.0	pCi/L	1.00	5.9		02/15/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-017
Sample # W08P000544
Client ID: B1RRH7 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Radiochemistry
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Tc-99 by Liquid Scin.	14133-76-7	LA-508-421		170	pCi/L	+-34.0	pCi/L	1.00	5.9		02/15/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-017
Sample # W08P000546
Client ID: B1RRH5 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Radiochemistry
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Tc-99 by Liquid Scin.	14133-76-7	LA-508-421		190	pCi/L	+-38.0	pCi/L	1.00	5.9		02/15/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: A08-001
Sample # W08P000547
Client ID: B1RPY6 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Radiochemistry
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		1.60e+03	pCi/L	+-384	pCi/L	1.00	2.4e+02		02/12/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(Inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: A08-001
Sample # W08P000548
Client ID: B1RPY7 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Radiochemistry
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		2.40e+03	pCi/L	+-528	pCi/L	1.00	2.4e+02		02/12/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: A08-001
Sample # W08P000549
Client ID: B1RPX1 PNNL-GPP WSCF

Matrix: WATER

Group #: WSCF20080207
Department: Radiochemistry
Sampled: 02/06/08
Received: 02/06/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Tc-99 by Liquid Scin.	14133-76-7	LA-508-421		260	pCi/L	+-52.0	pCi/L	1.00	5.9		02/15/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		1.20e+03	pCi/L	+-300	pCi/L	1.00	2.4e+02		02/12/08

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(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

C - The Analyte was found in the Associated Blank.(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.
X - Other flags/notes described in the comments/narrative(inorg)

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WSCF
TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent E6-35

Group #: WSCF20080207
Department: Radiochemistry

Sample #	Client ID		Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W08P000515	B1RCJ8	PNNL-GPP	Gamma Energy Analysis-grd H2O	BI-214				1.1e+02	pCi/L
W08P000515	B1RCJ8	PNNL-GPP	Gamma Energy Analysis-grd H2O	BI-214 Count Error				43	%
W08P000515	B1RCJ8	PNNL-GPP	Gamma Energy Analysis-grd H2O	PB-214				79	pCi/L
W08P000515	B1RCJ8	PNNL-GPP	Gamma Energy Analysis-grd H2O	PB-214 Count Error				33	%
W08P000515	B1RCJ8	PNNL-GPP	Gamma Energy Analysis-grd H2O	RA-226				96	pCi/L
W08P000515	B1RCJ8	PNNL-GPP	Gamma Energy Analysis-grd H2O	RA-226 Count Error				27	%

RQ=Result Qualifier

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GPAP

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080207
Matrix: WATER
Test: Gamma Energy Analysis-grd H2O

Sample Date: 02/06/08
Receive Date:02/06/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P000513											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Cobalt-60	10198-40-0	U4.43		RPD			n/a	20.000		02/22/08
DUP	Cesium-134	13967-70-9	U1.862		RPD			n/a	20.000		02/22/08
DUP	Cesium-137	10045-97-3	U-3.598e-2		RPD			n/a	20.000		02/22/08
DUP	Europium-152	14683-23-9	U-2.799		RPD			n/a	20.000		02/22/08
DUP	Europium-154	15585-10-1	U-5.898		RPD			n/a	20.000		02/22/08
DUP	Europium-155	14391-16-3	U14.14		RPD			n/a	20.000		02/22/08
DUP	Potassium-40	13966-00-2	U34.33		RPD			n/a	20.000		02/22/08
DUP	Ruthenium-106	13967-48-1	U-14.34		RPD			n/a	20.000		02/22/08
DUP	Antimony-125	14234-35-6	U-0.5311		RPD			n/a	20.000		02/22/08
BATCH QC											
BLANK	Cobalt-60	10198-40-0	U0.2783	n/a	pCi/L	-10.000	1000.000				02/13/08
BLANK	Cesium-134	13967-70-9	U1.071	n/a	pCi/L	-10.000	1000.000				02/13/08
BLANK	Cesium-137	10045-97-3	U-2.674	n/a	pCi/L	-10.000	1000.000				02/13/08
BLANK	Europium-152	14683-23-9	U7.215	n/a	pCi/L	-10.000	1000.000				02/13/08
BLANK	Europium-154	15585-10-1	U-6.643	n/a	pCi/L	-10.000	1000.000				02/13/08
BLANK	Europium-155	14391-16-3	U0.5498	n/a	pCi/L	-10.000	1000.000				02/13/08
BLANK	Potassium-40	13966-00-2	U-47.5	n/a	pCi/L	-10.000	1000.000				02/13/08
BLANK	Ruthenium-106	13967-48-1	U-1.039	n/a	pCi/L	-10.000	1000.000				02/13/08
BLANK	Antimony-125	14234-35-6	U6.817	n/a	pCi/L	-10.000	1000.000				02/13/08
LCS	Cobalt-60	10198-40-0	10330	103.924	% Recov	80.000	120.000				02/13/08
LCS	Cesium-137	10045-97-3	6271	103.825	% Recov	80.000	120.000				02/13/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Radiochemistry**

SDG Number: WSCF20080207
Matrix: WATER
Test: Plutonium Isotopics by AEA

Sample Date: 02/06/08
Receive Date:02/06/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P000519											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Plutonium-238	13981-16-3	U-5.5e-2		RPD			n/a	20.000		02/20/08
DUP	Pu-239/240 by AEA	PU-239/240	U5.5e-2		RPD			n/a	20.000		02/20/08
DUP	Pu-242 tracer by AEA	PU242	31.19	31.000	% Recov	30.000	105.000				02/20/08
SURR	Pu-242 tracer by AEA	PU242	31.19	29.680	% Recov	30.000	105.000		•		02/20/08
Lab ID: W08P000521											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Pu-242 tracer by AEA	PU242	31.19	45.950	% Recov	30.000	105.000				02/20/08
BATCH QC											
BLANK	Plutonium-238	13981-16-3	U0.23	n/a	pCi/L	-10.000	1000.000				02/20/08
BLANK	Pu-239/240 by AEA	PU-239/240	U0.14	n/a	pCi/L	-10.000	1000.000				02/20/08
BLANK	Pu-242 tracer by AEA	PU242	31.19	17.450	% Recov	30.000	105.000		•		02/20/08
LCS	Pu-239/240 by AEA	PU-239/240	12.59	98.015	% Recov	80.000	120.000				02/20/08
LCS	Pu-242 tracer by AEA	PU242	17.31	5.910	% Recov	30.000	105.000		•		02/20/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Radiochemistry**

SDG Number: WSCF20080207
Matrix: WATER
Test: TC99 by Liquid Scin.

Sample Date: 01/31/08
Receive Date:01/31/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P000436											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Tc-99 by Liquid Scin.	14133-76-7	U2.7		RPD			n/a	20.000		02/15/08
MS	Tc-99 by Liquid Scin.	14133-76-7	801.3	106.520	% Recov	75.000	125.000				02/15/08
BATCH QC											
BLANK	Tc-99 by Liquid Scin.	14133-76-7	U-3.6	n/a	pCi/L	-10.000	10.000				02/15/08
LCS	Tc-99 by Liquid Scin.	14133-76-7	199.2	105.901	% Recov	80.000	120.000				02/15/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080207
Matrix: WATER
Test: Gross Alpha on Alpha Plateau

Sample Date: 02/04/08
Receive Date:02/04/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P000485											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Gross alpha on alpha plateau	12587-46-1	U-3.0		RPD			n/a	20.000		02/19/08
BATCH QC											
BLANK	Gross alpha on alpha plateau	12587-46-1-ap	U-1.4	n/a	pCi/L	-100.000	100.000				02/19/08
LCS	Gross alpha on alpha plateau	12587-46-1-ap	89.6	86.738	% Recov	80.000	120.000				02/19/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080207
Matrix: WATER
Test: Gross Alpha/Gross Beta (AB32)

Sample Date: 02/04/08
Receive Date:02/04/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P000485											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Gross beta	12587-47-2	7.1E+01		RPD			20.253	20.000 *		02/14/08
BATCH QC											
BLANK	Gross beta	12587-47-2	U-1.8	n/a	pCi/L	-10.000	10.000				02/14/08
LCS	Gross beta	12587-47-2	332	111.000	% Recov	80.000	120.000				02/14/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080207
Matrix: WATER
Test: Americium by AEA

Sample Date: 02/06/08
Receive Date:02/06/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P000519											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Americium-241	14596-10-2	U1.3E-02		RPD			n/a	20.000		02/20/08
DUP	Am-243 tracer by AEA	AM243	20.12	66.820	% Recov	30.000	105.000				02/20/08
SURR	Am-243 tracer by AEA	AM243	20.12	42.720	% Recov	30.000	105.000				02/20/08
Lab ID: W08P000521											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Am-243 tracer by AEA	AM243	20.12	45.630	% Recov	30.000	105.000				02/20/08
BATCH QC											
BLANK	Americium-241	14596-10-2	U0.14	n/a	pCi/L	-10.000	1000.000				02/20/08
BLANK	Am-243 tracer by AEA	AM243	20.12	83.690	% Recov	30.000	105.000				02/20/08
LCS	Americium-241	14596-10-2	11.57	97.637	% Recov	80.000	120.000				02/20/08
LCS	Am-243 tracer by AEA	AM243	11.17	99.800	% Recov	30.000	105.000				02/20/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080207
Matrix: WATER
Test: Neptunium by AEA

Sample Date: 02/06/08
Receive Date:02/06/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P000509											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Neptunium-237	13994-20-2	U4.4e-2		RPD			n/a	20.000		02/28/08
MS	Neptunium-237	13994-20-2	94.949	94.949	% Recov	75.000	125.000				02/28/08
MSD	Neptunium-237	13994-20-2	11.849	103.939	% Recov	75.000	125.000				02/28/08
SPK-RPD	Neptunium-237	13994-20-2	103.939		% RPD			9.040	20.000		02/28/08
BATCH QC											
BLANK	Neptunium-237	13994-20-2	U-3.4e-2	n/a	pCi/L	-10.000	1000.000				02/28/08
LCS	Neptunium-237	13994-20-2	11.60	91.016	% Recov	80.000	120.000				02/28/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080207
Matrix: WATER
Test: Tritium by Liq Sct column prep

Sample Date: 02/06/08
Receive Date:02/06/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P000547											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Tritium	10028-17-8	1.5E+03		RPD			6.452	20.000		02/12/08
MS	Tritium	10028-17-8	23030.0	87.294	% Recov	75.000	125.000				02/12/08
BATCH QC											
BLANK	Tritium	10028-17-8	U-8.7E+01	n/a	pCi/L	-10.000	1000.000				02/12/08
LCS	Tritium	10028-17-8	2120.0	70.702	% Recov	80.000	120.000			•	02/12/08
Lab ID: W08P000491											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Tritium	10028-17-8	6.5e+02		RPD			13.115	20.000		02/21/08
MS	Tritium	10028-17-8	23525.0	89.170	% Recov	75.000	125.000				02/21/08
BATCH QC											
BLANK	Tritium	10028-17-8	U-1.1e+02	-110.000	pCi/L	-10.000	1000.000			•	02/21/08
LCS	Tritium	10028-17-8	2640.0	88.044	% Recov	80.000	120.000				02/21/08

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent E6-35

Group #: WSCF20080207
Department: Radiochemistry

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		SVOA: Surrogate failures are on an unrelated sample. "J" flagged compounds are estimates because the concentration is too low for accurate quantitation. cgc H-3 batch LCS is flagged for the poor LCS recovery. Since all the other QC chekcs came out fine, this batch has been approved. lmh Gross beta duplicate is flagged for poor RPD. Since all the other QC checks came out fine, this batch has been approved. lmh W08P000519, W08P000521/Pu242 (tracer recovery) is flagged for the Blank, LCS, and Sample W08P000519. The low tracer recovery did not significantly effect the quality of the sample results so this batch has been approved. ICP-AES: [Samples W08P508-515; 518-21; 530-531] Magnesium, sodium, and calcium sample results beyond effective spike range (spike recoveries marked "NA"). Check standard used to ensure magnesium, sodium, and calcium linearity beceuse 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

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WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent E6-35

Group #: WSCF20080207
Department: Radiochemistry

Sample #	Client ID	Lab Area	Test	Comment
				ICP-AES: [Samples W08P532-33; 539; 550-551; 560-564] High magnesium and antimony preparation blank result; "C" flag if applicable. Magnesium, sodium, and calcium sample results beyond effective spike range (spike recoveries marked "NA"). Check and high standards used to ensure magnesium, sodium, and calcium linearity because sample results are greater than the calibration standard. TOX: X-Flag indicates greater than 10% Carbon Column break-through observed for the sample. Triplicate analysis verfies sample effect. gar

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

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M4W41-SLF-08-324

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 31 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

ACKNOWLEDGMENT OF SAMPLES RECEIVED

GPAP

Richland, WA 99352
Attn: Steve Trent E6-35

Customer Code: PNNL-GPP
PO#: 122543
Group#: 20080207

The following samples were received from you on 02/06/08. 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
~~W08P000505~~	~~B1RB38~~	~~PNNL-GPP~~					~~Water~~	~~02/06/08~~
							ADH P.O. Mu 3/24/2008	
~~W08P000506~~	~~B1RB39~~	~~PNNL-GPP~~					~~Water~~	~~02/06/08~~
W08P000507	B1RHY8	PNNL-GPP					Water	02/06/08
		ALKALI	CN-02					
W08P000508	B1RCH9	PNNL-GPP					Water	02/06/08
		@2008	@GPP6010					
W08P000509	B1RCJ0	PNNL-GPP					Water	02/06/08
		@2008	@AEA-33	@GPP6010	@H3-33	@IC-30		
		@SVOCGPP	@VOA-GPP					
W08P000510	B1RB35	PNNL-GPP					Water	02/06/08
		@GPP6010						
W08P000511	B1RB36	PNNL-GPP					Water	02/06/08
		@AB-32	@ALPHA	@GPP6010	@H3-33	@IC-30		
W08P000512	B1RCJ3	PNNL-GPP					Water	02/06/08
		@GPP6010						
W08P000513	B1RCJ4	PNNL-GPP					Water	02/06/08
		@2008	@GEA-GPP	@GPP6010	@H3-33	@IC-30		
		ALKALI	CN-02					
W08P000514	B1RCJ7	PNNL-GPP					Water	02/06/08
		@GPP6010						
W08P000515	B1RCJ8	PNNL-GPP					Water	02/06/08
		@2008	@GEA-GPP	@GPP6010	@H3-33	@IC-30		
		ALKALI	CN-02					
W08P000518	B1RCL5	PNNL-GPP					Water	02/06/08
		@2008	@GPP6010					
W08P000519	B1RCL6	PNNL-GPP					Water	02/06/08
		@2008	@AEA-30	@AEA-31	@GPP6010	@H3-33		
		@IC-30	@SVOCGPP	@TC99-30	@VOA-GPP	ALKALI		CN-02

GPAP

Richland, WA 99352
Attn: Steve Trent E6-35

Customer Code: PNNL-GPP
PO#: 122543
Group#: 20080207

Sample#	Sample Id	Tests Scheduled	Matrix	Sample Date
W08P000520	B1RCK9	PNNL-GPP @2008 @GPP6010	Water	02/06/08
W08P000521	B1RCL0	PNNL-GPP @2008 @AEA-30 @AEA-31 @GPP6010 @H3-33 @IC-30 @SVOCGPP @TC99-30 @VOA-GPP ALKALI CN-02	Water	02/06/08
W08P000522	B1RW18	PNNL-GPP TOC-30 TOX	Water	02/06/08
W08P000523	B1RW19	PNNL-GPP TOC-30 TOX	Water	02/06/08
W08P000524	B1RW20	PNNL-GPP TOC-30 TOX	Water	02/06/08
W08P000525	B1RW21	PNNL-GPP TOC-30 TOX	Water	02/06/08
W08P000526	B1RW38	PNNL-GPP TOC-30 TOX	Water	02/06/08
W08P000527	B1RW39	PNNL-GPP TOC-30 TOX	Water	02/06/08
W08P000528	B1RW40	PNNL-GPP TOC-30 TOX	Water	02/06/08
W08P000529	B1RW41	PNNL-GPP TOC-30 TOX	Water	02/06/08
W08P000530	B1RW24	PNNL-GPP @2008 @GPP6010	Water	02/06/08
W08P000531	B1RW25	PNNL-GPP @2008 @GPP6010 ALKALI	Water	02/06/08
W08P000532	B1RW44	PNNL-GPP @2008 @GPP6010	Water	02/06/08
W08P000533	B1RW45	PNNL-GPP @2008 @GPP6010 ALKALI	Water	02/06/08
W08P000534	B1RRH9	PNNL-GPP @2008	Water	02/06/08
W08P000535	B1RRJ0	PNNL-GPP @2008 @IC-30 @TC99-30 @VOA-GPP	Water	02/06/08
W08P000536	B1RPY3	PNNL-GPP @H3-33	Water	02/06/08
W08P000537	B1RPY0	PNNL-GPP @H3-33	Water	02/06/08
W08P000538	B1RPY1	PNNL-GPP @H3-33	Water	02/06/08
W08P000539	B1RW28	PNNL-GPP @2008 @GPP6010	Water	02/06/08

GPAP

Richland, WA 99352
Attn: Steve Trent E6-35

Customer Code: PNNL-GPP
PO#: 122543
Group#: 20080207

Sample#	Sample Id	Tests Scheduled	Matrix	Sample Date
W08P000540	B1TBF0	PNNL-GPP @VOA-GPP	Water	02/06/08
W08P000541	B1RTD8	PNNL-GPP @2008 @IC-30 @TC99-30 @VOA-GPP	Water	02/06/08
W08P000542	B1RTD9	PNNL-GPP @2008 @IC-30 @TC99-30 @VOA-GPP	Water	02/06/08
W08P000543	B1RRH6	PNNL-GPP @2008	Water	02/06/08
W08P000544	B1RRH7	PNNL-GPP @2008 @IC-30 @TC99-30 @VOA-GPP	Water	02/06/08
W08P000545	B1RRH4	PNNL-GPP @2008	Water	02/06/08
W08P000546	B1RRH5	PNNL-GPP @2008 @IC-30 @TC99-30 @VOA-GPP	Water	02/06/08
W08P000547	B1RPY6	PNNL-GPP @H3-33	Water	02/06/08
W08P000548	B1RPY7	PNNL-GPP @H3-33	Water	02/06/08
W08P000549	B1RPX1	PNNL-GPP @2008 @H3-33 @TC99-30	Water	02/06/08
W08P000550	B1RW60	PNNL-GPP @2008 @GPP6010	Water	02/06/08
W08P000551	B1RW61	PNNL-GPP @2008 @GPP6010 ALKALI	Water	02/06/08
W08P000552	B1RW50	PNNL-GPP TOC-30 TOX	Water	02/06/08
W08P000553	B1RW51	PNNL-GPP TOC-30 TOX	Water	02/06/08
W08P000554	B1RW52	PNNL-GPP TOC-30 TOX	Water	02/06/08
W08P000555	B1RW53	PNNL-GPP TOC-30 TOX	Water	02/06/08
W08P000556	B1RVW0	PNNL-GPP TOC-30 TOX	Water	02/06/08
W08P000557	B1RVW1	PNNL-GPP TOC-30 TOX	Water	02/06/08
W08P000558	B1RVW2	PNNL-GPP TOC-30 TOX	Water	02/06/08
W08P000559	B1RVW3	PNNL-GPP TOC-30 TOX	Water	02/06/08
W08P000560	B1RW56	PNNL-GPP @2008 @GPP6010	Water	02/06/08

GPAP

Richland, WA 99352
Attn: Steve Trent E6-35

Customer Code: PNNL-GPP
PO#: 122543
Group#: 20080207

Sample#	Sample Id	Tests Scheduled	Matrix	Sample Date
W08P000561	B1RW57	PNNL-GPP @2008 @GPP6010 ALKALI	Water	02/06/08
W08P000562	B1RVW6	PNNL-GPP @2008 @GPP6010	Water	02/06/08
W08P000563	B1RVW7	PNNL-GPP @2008 @GPP6010 @IC-30 @VOA-GPP ALKALI	Water	02/06/08
W08P000564	B1RW29	PNNL-GPP @2008 @GPP6010 ALKALI	Water	02/06/08

Test Acronym Description

Test Acronym	Description
@2008	ICP-200.8 MS All possible meta
@AB-32	Gross Alpha/Gross Beta (AB32)
@AEA-30	Plutonium Isotopics by AEA
@AEA-31	Americium by AEA
@AEA-33	Neptunium by AEA
@ALPHA	Gross Alpha on Alpha Plateau
@GEA-GPP	Gamma Energy Analysis-grd H2O
@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
TOC-30	Total Organic Carbon
TOX	Total Organic Halides

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

03/20/08 ~~20080207~~ 20080207

C.O.C. # **I08-010-46**

Page 1 of 1

Collector: D. J. Sparks	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: I08-010	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 100HR3JAM(1/2), DECEMBER 2007	HNF-N-506-11	Ice Chest No.: GW-1 Temp.
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: CERCLA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS

** **

Analyses of samples were canceled per client request

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

All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 08 SAFs into one SDG, not to exceed SDG closure of 14 days.

WSCF: Batch all GW samples submitted into one SDG, daily closure.

FY07 and FY08 samples cannot be in the same SDG.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
~~B1RB38 (F) w/ P0050S~~	~~SOL~~	~~W~~	~~26-06~~	~~1217~~	~~1x500-mL G/P~~	~~6010_METALS_ICP: List 3 (18)~~	~~HNO3 to pH <2~~
~~B1RB30~~		~~W~~			~~1x500-mL P~~	~~300.0_ANIONS_IC: List 1 (5)~~	~~Cool~4C~~
~~B1RB39~~		~~W~~			~~1x500-mL G/P~~	~~6010_METALS_ICP: List 3 (18)~~	~~HNO3 to pH <2~~
~~B1RB39~~		~~W~~			~~1x500-mL G/P~~	~~ALPHABETA_GPC: Alpha discrete + Beta (2)~~; ALPHABETA_GPC: Alpha discrete + Beta (2)	~~HNO3 to pH <2~~
~~B1RB39~~		~~W~~			~~1x250-mL G~~	~~TRITIUM_EIE_LSC: Tritium (1)~~	None

ICED

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
D. J. Sparks			FEB 0 6 2008 1400				FEB 0 6 2008 1400
Relinquished By			Date/Time	Received By			Date/Time
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

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W08-012-337**

Collector D. J. Sparks	Contact/Requester Steve Trent	Telephone No. 509-373-5869 MSIN FAX
SAF No. W08-012	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title RCRA, DECEMBER 2007	1/4 NF-N-506-11	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
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 08 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
FY07 and FY08 samples cannot be in the same SDG

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RHY8	507	W	2-6-08	1140	1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1RHY8	↓	W	↓	↓	1x250-mL G/P	335.2_CYANIDE: Cyanide (1)	NaOH to pH >= 12 Cool~4C

ICED

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
D. J. Sparks			FEB 0 6 2008 1400				FEB 0 6 2008 1400
Relinquished By			Date/Time	Received By			Date/Time
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

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FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S08-012-367

Collector: D. J. Sparks	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: S08-012	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, DECEMBER 2007	HNF-N-506-11	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 08 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
FY07 and FY08 samples cannot be in the same SDG.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RCH9 (F)	S08	W	2-6-08	1140	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RCH9 (F)	↓	W			1x500-mL G/P	200.8_METALS_ICPMS: Arsenic (1); 200.8_METALS_ICPMS: Aluminum (1); 200.8_METALS_ICPMS: Thallium (1)	HNO3 to pH <2
B1RCJ0	S09	W			1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None
B1RCJ0		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1RCJ0		W			4x40-mL aGs*	8260_VOA_GCMS: List-2 (25)	HCl or H2SO4 to pH <2 Cool~4C
B1RCJ0		W			1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2
B1RCJ0		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RCJ0		W			4x1000-mL aG	8270_SVOA_GCMS: List-1 (13)	Cool~4C
B1RCJ0		W			1x500-mL G/P	200.8_METALS_ICPMS: Arsenic (1); 200.8_METALS_ICPMS: Aluminum (1); 200.8_METALS_ICPMS: Thallium (1)	HNO3 to pH <2
B1RCJ0	↓	W			1x1000-mL G/P	NP237_LLE_PLATE_AEA:Np-237(1)	HNO3 to pH <2

ICED

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
D. J. Sparks	FEB 06 2008 1405		FEB 06 2008 1400

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

C.O.C. # I08-010-42

Page 1 of 1

Collector D. J. Sparks	Contact/Requester Steve Trent	Telephone No. 509-373-5869 MSIN FAX
SAF No. 108-010	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title 100HR3IAM(1/2), DECEMBER 2007	HNF-N-506-11	Ice Chest No. GW-1 Temp.
Shipped To (Lab) Waste Sampling & Characterization	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol CERCLA	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 08 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
FY07 and FY08 samples cannot be in the same SDG.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RB35 (F)	510	W	2-6-08	1247	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RB36	511	W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1RB36		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RB36		W			1x500-mL G/P	ALPHABETA_GPC: Alpha discrete + Beta (2); ALPHABETA_GPC: Alpha discrete + Beta (2)	HNO3 to pH <2
B1RB36		W			1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None

ICED

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
D. J. Sparks			FEB 06 2008 1400				FEB 06 2008 1400
Relinquished By			Date/Time	Received By			Date/Time
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

C.O.C. # S08-012-373

Collector: D. J. Sparks	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: S08-012	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, DECEMBER 2007	HNF-N-506-11	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 08 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
FY07 and FY08 samples cannot be in the same SDG.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RCJ3 (F)	512	W	2-6-08	0946	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RCJ4	513	W			1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None
B1RCJ4		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1RCJ4		W			1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2
B1RCJ4		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RCJ4		W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1RCJ4		W			1x250-mL G/P	335.2_CYANIDE: Cyanide (1)	NaOH to pH >= 12 Cool~4C
B1RCJ4		W			1x500-mL G/P	GAMMA_GS: List-1 (10)	HNO3 to pH <2

ICED

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
D. J. Sparks			FEB 06 2008 1400				FEB 06 2008 1400
Relinquished By			Date/Time	Received By			Date/Time
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

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FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S08-012-374

Collector: D. J. Sparks	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: S08-012	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, DECEMBER 2007	HNF-N-506-11	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

** ** 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 08 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
FY07 and FY08 samples cannot be in the same SDG.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RCJ7 (F)	514	W	2-6-08	0770	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RCJ8	515	W			1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None
B1RCJ8		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1RCJ8		W			1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2
B1RCJ8		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RCJ8		W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1RCJ8		W			1x250-mL G/P	335.2_CYANIDE: Cyanide (1)	NaOH to pH >= 12 Cool~4C
B1RCJ8		W			1x500-mL G/P	GAMMA_GS: List-1 (10)	HNO3 to pH <2

ICED

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
D. J. Sparks	FEB 06 2008 1460		FEB 06 2008 1460
Relinquished By	Date/Time	Received By	Date/Time
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

C.O.C. # S08-012-388

Page 1 of 1

Collector: R. A. Shepard	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: S08-012	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV DECEMBER 2007	HNF-N-506 12	Ice Chest No.: 027 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 08 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
FY07 and FY08 samples cannot be in the same SDG.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RCL5 (F)	518	W	2-6-08	0815	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RCL5 (F)	518	W			1x500-mL G/P	200.8_METALS_ICPMS: Arsenic (1); 200.8_METALS_ICPMS: Aluminum (1); 200.8_METALS_ICPMS: Thallium (1)	HNO3 to pH <2
B1RCL6	519	W			1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None
B1RCL6		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1RCL6		W			4x40-mL aGs*	8260_VOA_GCMS: List-2 (25)	HCl or H2SO4 to pH <2 Cool~4C
B1RCL6		W			1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2
B1RCL6		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RCL6		W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1RCL6		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2
B1RCL6		W			4x1000-mL aG	8270_SVOA_GCMS: List-1 (13)	Cool~4C
B1RCL6		W			1x500-mL G/P	200.8_METALS_ICPMS: Arsenic (1); 200.8_METALS_ICPMS: Aluminum (1); 200.8_METALS_ICPMS: Thallium (1)	HNO3 to pH <2
B1RCL6		W			1x250-mL G/P	335.2_CYANIDE: Cyanide (1)	NaOH to pH >= 12 Cool~4C
B1RCL6		W			1x1000-mL G/P	AMCMISO_EIE_PLT_AEA: Am-241 (1)	HNO3 to pH <2
B1RCL6		W			1x1000-mL P	PUISO_PLATE_AEA: Pu-238 + 239/240 (2)	HNO3 to pH <2

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Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
R. A. Shepard	0250pm FEB 0 6 2008	T A Frazier	0250pm FEB 0 6 2008
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

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

C.O.C. # S08-012-387

Collector: R. A. Shepard	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: S08-012	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV DECEMBER 2007	HWF-N-506 12	Ice Chest No.: 027 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 08 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
FY07 and FY08 samples cannot be in the same SDG.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RCK9 (F)	520	W	2-6-08	1214	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RCK9 (F)	↓	W			1x500-mL G/P	200.8_METALS_ICPMS: Arsenic (1); 200.8_METALS_ICPMS: Aluminum (1); 200.8_METALS_ICPMS: Thallium (1)	HNO3 to pH <2
B1RCL0	521	W			1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None
B1RCL0		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1RCL0		W			4x40-mL aGs*	8260_VOA_GCMS: List-2 (25)	HCl or H2SO4 to pH <2 Cool~4C
B1RCL0		W			1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2
B1RCL0		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RCL0		W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1RCL0		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2
B1RCL0		W			4x1000-mL aG	8270_SVOA_GCMS: List-1 (13)	Cool~4C
B1RCL0		W			1x500-mL G/P	200.8_METALS_ICPMS: Arsenic (1); 200.8_METALS_ICPMS: Aluminum (1); 200.8_METALS_ICPMS: Thallium (1)	HNO3 to pH <2
B1RCL0		W			1x250-mL G/P	335.2_CYANIDE: Cyanide (1)	NaOH to pH >= 12 Cool~4C
B1RCL0		W			1x1000-mL G/P	AMCMISO_EIE_PLT_AEA: Am-241 (1)	HNO3 to pH <2
B1RCL0		W			1x1000-mL P	PUISO_PLATE_AEA: Pu-238 + 239/240 (2)	HNO3 to pH <2

ICED

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
R. A. Shepard			0250 pm FEB 0 6 2008	T A Frazier			0250 pm FEB 0 6 2008
Relinquished By			Date/Time	Received By			Date/Time
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

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FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

W08-001-112

Collector K B HULSE	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. W08-001	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA JANUARY 2008	HWF-N-506-14	**Ice Chest No.** SML-69 **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 ☐
Site-Wide Generator Knowledge Information Form applies.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RW18	W08-001-522	W	2/6/08	1955	1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool~4C
B1RW18	↓	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1RW19	523	W			1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool~4C
B1RW19	↓	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1RW20	524	W			1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool~4C
B1RW20	↓	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1RW21	525	W			1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool~4C
B1RW21	↓	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1RW24 (F)	530	W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RW24 (F)	↓	W			1x500-mL G/P	200.8_METALS_ICPMS: Lead (1)	HNO3 to pH <2
B1RW25	531	W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RW25	↓	W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1RW25	↓	W	↓	↓	1x500-mL G/P	200.8_METALS_ICPMS: Lead (1)	HNO3 to pH <2
							ICED

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
K B HULSE / [signature]	1535 FEB 06 2008	T A Frazier / [signature]	1535 FEB 06 2008

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

W08-001-118

Collector K B HULSE	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. W08-001	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, JANUARY 2008	HWF-W-501-14	**Ice Chest No.** SML-69 **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 ☐
Site-Wide Generator Knowledge Information Form applies.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RW38	526	W	2/6/08	1106	1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool~4C
B1RW38	↓	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1RW39	527	W			1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool~4C
B1RW39	↓	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1RW40	528	W			1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool~4C
B1RW40	↓	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1RW41	529	W			1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool~4C
B1RW41	↓	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1RW44 (F)	532	W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RW44 (F)	↓	W			1x500-mL G/P	200.8_METALS_ICPMS: Lead (1)	HNO3 to pH <2
B1RW45	533	W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RW45	↓	W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1RW45	↓	W			1x500-mL G/P	200.8_METALS_ICPMS: Lead (1)	HNO3 to pH <2

ICED

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
K B HULSE / [signature]	1535 FEB 06 2008	T A Frazier / [signature]	1535 FEB 06 2008

Matrix *

S = Soil		DS = Drum Solid	
SF = 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

I08-017-6

Collector ~~K.B. HULSE~~	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. I08-017	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2UPL JANUARY 2008	HNF-N-506-14	**Ice Chest No.** SML-69 **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 ☐
WSCF: Batch all GW samples submitted into one SDG, daily closure.
200 Area Generator Knowledge Information Form applies.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RRH9 (F)	534	W	2/6/08	1106	1x500-mL G/P	200.8_METALS_ICPMS: Arsenic (1)	HNO3 to pH <2
B1RRJ0	535	W			4x40-mL aGs*	8260_VOA_GCMS: List-2 (25)	HCl or H2SO4 to pH <2 Cool~4C
B1RRJ0		W			1x500-mL G/P	200.8_METALS_ICPMS: Arsenic (1)	HNO3 to pH <2
B1RRJ0		W			1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2
B1RRJ0		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1RRJ0		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2

ICED

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
~~K.B. HULSE~~			1535 FEB 06 2008	T A Frazier			1535 FEB 06 2008
Relinquished By			Date/Time	Received By			Date/Time
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

A08-001-33

Collector	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. A08-001 K B HULSE	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title LLWMA(4)-PA JANUARY 2008	HNF-N-506-14	**Ice Chest No.** SML-69 **Temp.**
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol Other	**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 08 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
200 Area Generator Knowledge Form applies.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RPY3	536	W	2/6/08	1106	1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None

ICED

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
K B HULSE	K B Hulse	1535 FEB 0 6 2008	T A Frazier	Teresa Frazier	1535 FEB 0 6 2008
Relinquished By		Date/Time	Received By		Date/Time
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 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

A08-001-29

Collector K.B. HULSE	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. A08-001	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title LLWMA(4)-PA, JANUARY 2008	HNF-N-506-14	**Ice Chest No.** SML-69 **Temp.**
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol Other	**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 08 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
200 Area Generator Knowledge Form applies.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RPY0	537	W	2/6/08	0937	1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None

ICED

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	K.B. HULSE		FEB 0 6 2008 1535		T A Frazier		FEB 0 6 2008 1535
Relinquished By			Date/Time	Received By			Date/Time
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

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FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

A08-001-30

Collector K.R. HULSE	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. A08-001	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title LLWMA(4)-PA, JANUARY 2008	HNF-N-506-14	**Ice Chest No.** SML-69 **Temp.**
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol Other	**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 08 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
200 Area Generator Knowledge Form applies.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RPY1	538	W	2/6/08	0933	1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None

ICED

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
K.R. HULSE	K.R. Hulse	1535 FEB 06 2008	T A Frazier	Teresa Frazier	1535 FEB 06 2008
Relinquished By		Date/Time	Received By		Date/Time
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

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

W08-001-113

Collector K B HULSE	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. W08-001	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA JANUARY 2008	HWF-N-506-14	**Ice Chest No.** SML-69 **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 ☐
Site-Wide Generator Knowledge Information Form applies.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RW28 (F)	539	W	2/6/08	0957	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RW28 (F)	↓	W	↓	↓	1x500-mL G/P	200.8_METALS_ICPMS: Lead (1)	HNO3 to pH <2
B1RW29	564	W	↓	↓	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RW29	↓	W	↓	↓	1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1RW29	↓	W	↓	↓	1x500-mL G/P	200.8_METALS_ICPMS: Lead (1)	HNO3 to pH <2

ICED

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
K B Hulse	1535 FEB 06 2008	T A Frazier	1535 FEB 06 2008

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

S08-002-45

Collector K.B. HULSE	Contact/Requester	Telephone No. MSIN FAX
SAF No. S08-002	Sampling Origin	Purchase Order/Charge Code
Project Title SURV FEBRUARY 2008	HNF-W-506-14	Ice Chest No. SML-69 Temp.
Shipped To (Lab) Waste Sampling & Characterization	Method of Shipment	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 ☐

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1TBF0	540	W	2/6/08	0933	1x20-mL P	Activity Scan	None
B1TBF0	↓	W	↓	↓	4x40-mL aGs*	8260_VOA_GCMS: List-2 (25)	HCl or H2SO4 to pH <2 Cool~4C

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Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
K.B. HULSE			FEB 06 2008 1535	T A Frazier			FEB 06 2008 1535
Relinquished By			Date/Time	Received By			Date/Time
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

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

I08-018-28

Collector K. D. HULSE	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. I08-018	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2ZPL JANUARY 2008	HNF-N-506-14	**Ice Chest No.** SML-69 **Temp.**
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**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 ☐
200 Area Generator Knowledge Information Form applies.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RTD8	541	W	2/6/08	1248	4x40-mL aGs*	8260_VOA_GCMS: List-2 (25)	HCl or H2SO4 to pH <2 Cool~4C
B1RTD8	↓	W	↓	↓	1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1RTD8		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2
B1RTD8	↓	W	↓	↓	1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2

ICED

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
K. D. HULSE			1535 FEB 06 2008	T A Frazier			1535 FEB 06 2008
Relinquished By			Date/Time	Received By			Date/Time
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

I08-018-29

Collector K.B. Hulse	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. I08-018	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2ZP1, JANUARY 2008	HNF-N-506-14	**Ice Chest No.** SML-69 **Temp.**
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**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 ☐
200 Area Generator Knowledge Information Form applies.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RTD9	542	W	2/6/08	1248	4x40-mL aGs*	8260_VOA_GCMS: List-2 (25)	HCl or H2SO4 to pH <2 Cool~4C
B1RTD9	↓	W	↓	↓	1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1RTD9	↓	W	↓	↓	1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2
B1RTD9	↓	W	↓	↓	1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2

ICED

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
K.B. HULSE			1535 FEB 06 2008	T A Frazier			1535 FEB 06 2008
Relinquished By			Date/Time	Received By			Date/Time
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

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

I08-017-3

Collector K B HULSE	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. I08-017	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2UPL JANUARY 2008	HWF-N-506-14	**Ice Chest No.** SML-69 **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 ☐
WSCF: Batch all GW samples submitted into one SDG, daily closure.
200 Area Generator Knowledge Information Form applies.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RRH6 (F)	543	W	2/6/08	0937	1x500-mL G/P	200.8_METALS_ICPMS: Arsenic (1)	HNO3 to pH <2
B1RRH7	544	W			4x40-mL aGs*	8260_VOA_GCMS: List-2 (25)	HCl or H2SO4 to pH <2 Cool~4C
B1RRH7		W			1x500-mL G/P	200.8_METALS_ICPMS: Arsenic (1)	HNO3 to pH <2
B1RRH7		W			1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2
B1RRH7		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1RRH7		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2

ICED

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
K B HULSE			1535 FEB 06 2008		TA Frazier		1535 FEB 06 2008
Relinquished By			Date/Time	Received By			Date/Time
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	= 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

I08-017-2

Collector K. B. HULSE	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. 108-017	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2UPL JANUARY 2008	HNF-N-506-14	**Ice Chest No.** SinL-69 **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 ☐
WSCF: Batch all GW samples submitted into one SDG, daily closure.
200 Area Generator Knowledge Information Form applies.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RRH4 (F)	545	W	2/6/08	0937	1x500-mL G/P	200.8_METALS_ICPMS: Arsenic (1)	HNO3 to pH <2
B1RRH5	546	W			4x40-mL aGs*	8260_VOA_GCMS: List-2 (25)	HCl or H2SO4 to pH <2 Cool~4C
B1RRH5		W			1x500-mL G/P	200.8_METALS_ICPMS: Arsenic (1)	HNO3 to pH <2
B1RRH5		W			1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2
B1RRH5		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1RRH5		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2

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Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
K.B. HULSE			1535 FEB 06 2008	T A Frazier			1535 FEB 06 2008
Relinquished By			Date/Time	Received By			Date/Time
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

A08-001-37

Collector K.B. Hulse	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. A08-001	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title LLWMA(4)-PA, JANUARY 2008	HNF-N-506-14	**Ice Chest No.** SML-69 **Temp.**
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol Other	**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 08 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
200 Area Generator Knowledge Form applies.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RPY6	547	W	2/6/08	1248	1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None

ICED

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
K.B. Hulse	K.B. Hulse	K.B. Hulse	1535 FEB 06 2008	T A Frazier	T A Frazier	Terri Frazier	1535 FEB 06 2008
Relinquished By			Date/Time	Received By			Date/Time
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

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

A08-001-38

Collector K.B. HULSE	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. A08-001	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title LLWMA(4)-PA, JANUARY 2008	HNF-N-506-14	**Ice Chest No.** SML-69 **Temp.**
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol Other	**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 08 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
200 Area Generator Knowledge Form applies.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RPY7	548	W	2/6/08	1248	1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None

ICED

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	K.B. HULSE		FEB 06 2008		T A Frazier		FEB 06 2008
Relinquished By			Date/Time	Received By			Date/Time
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

A08-001-13

Collector K.B. HULSE	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. A08-001	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title LLWMA(4)-PA, JANUARY 2008	HNF-N-506 -14	**Ice Chest No.** SML-69 **Temp.**
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol Other	**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 08 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all GW samples submitted into one SDG, daily closure.
200 Area Generator Knowledge Form applies.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RPX1	549	W	2/6/08	1446	1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2
B1RPX1	↓	W	↓	↓	1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2
B1RPX1	↓	W	↓	↓	1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None

ICED

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
K.B. HULSE			1535 FEB 06 2008	T A Frazier			1535 FEB 06 2008
Relinquished By			Date/Time	Received By			Date/Time
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

W08-001-125

Collector K.B. Hulse	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. W08-001	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA JANUARY 2008	HNF-N-506-14	**Ice Chest No.** SML-69 **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 ☐
Site-Wide Generator Knowledge Information Form applies.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RW60 (F)	550	W	2/6/08	1240	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RW60 (F)	↓	W	↓	↓	1x500-mL G/P	200.8_METALS_ICPMS: Lead (1)	HNO3 to pH <2
B1RW61	551	W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RW61	↓	W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1RW61	↓	W	↓	↓	1x500-mL G/P	200.8_METALS_ICPMS: Lead (1)	HNO3 to pH <2

ICED

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
K.B. HULSE	1535 FEB 06 2008	T A Frazier	1535 FEB 06 2008

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

W08-001-124

Collector K.B. Hulse	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. W08-001	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA JANUARY 2008	HNF-N-506-14	**Ice Chest No.** SML-69 **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 ☐
Site-Wide Generator Knowledge Information Form applies.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RW50	552	W	2/6/08	1248	1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool~4C
B1RW50	↓	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1RW51	553	W			1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool~4C
B1RW51	↓	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1RW52	554	W			1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool~4C
B1RW52	↓	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1RW53	555	W			1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool~4C
B1RW53	↓	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1RW56 (F)	560	W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RW56 (F)	↓	W			1x500-mL G/P	200.8_METALS_ICPMS: Lead (1)	HNO3 to pH <2
B1RW57	561	W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RW57	↓	W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1RW57	↓	W			1x500-mL G/P	200.8_METALS_ICPMS: Lead (1)	HNO3 to pH <2

ICED

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
K.B. Hulse	1535 FEB 06 2008	T A Frazier	1535 FEB 06 2008

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

W08-001-88

Collector: K. B. HULSE	Contact/Requester: Steve Trent	Telephone No.: 509-373-5869 MSIN FAX
SAF No.: W08-001	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: RCRA JANUARY 2008	HNF-N-506-14	Ice Chest No.: SML-69 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 ☐
Site-Wide Generator Knowledge Information Form applies.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RVW0	556	W	2/6/08	1446	1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool~4C
B1RVW0	↓	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1RVW1	557	W			1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool~4C
B1RVW1	↓	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1RVW2	558	W			1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool~4C
B1RVW2	↓	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1RVW3	559	W			1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool~4C
B1RVW3	↓	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool~4C
B1RVW6 (F)	562	W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RVW6 (F)	↓	W			1x500-mL G/P	200.8_METALS_ICPMS: Lead (1)	HNO3 to pH <2
B1RVW7	563	W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1RVW7		W			1x500-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1RVW7		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1RVW7		W			1x500-mL G/P	200.8_METALS_ICPMS: Lead (1)	HNO3 to pH <2
B1RVW7	↓	W	↓	↓	4x40-mL aGs*	8260_VOA_GCMS: List-2 (25)	HCl or H2SO4 to pH <2 Cool~4C

ICED

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
K. B. HULSE	1535 FEB 0 6 2008	T A Frazier	1535 FEB 0 6 2008

Matrix*

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liquid	
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

M4W41-SLF-08-324

ATTACHMENT 5

SAMPLE CANCELLATION

Consisting of 2 pages
Including cover page

From: Hampt, Heidi
Sent: Wednesday, February 27, 2008 9:25 AM
To: Mix, Pauline D
Cc: Trent, Stephen J; Waters-husted, Karen S
Subject: Samples to Cancel

Pauline,

We have inadvertently used the same sample numbers twice and need to cancel several analyses. Sample numbers B1RB38 (6010_METALS), B1RB39 (Tritium, alpha, Beta, 6010, 300.0), and B1RB94 (7196_CR6) were used on 2/6/08 and 2/8/08. We need to cancel the samples from 2/6/08 and go ahead with those for 2/8/08.

I will call you in a little while to make sure we are on the same page with these samples.

My apologies for the confusion and headache this causes on your end!

Thanks,
Heidi

Heidi Hampt
Fluor Hanford - Soil and Groundwater Remediation Project
Ph: (509) 376-4319

2/27/08