

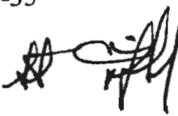
RECEIVED AUGUST 1, 2008

Fluor Hanford
 WSCF Analytical Lab
 P.O. Box 1000
 Richland, WA 99352
 Telephone 373-7495
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FLUOR**Memorandum**

M4W41-SLF-08-772

To: H. Hampt E6-35 Date: August 1, 2008

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

cc: w/Attachments

T. F. Dale	S3-30	J. E. Trechter	S3-30
A. J. Kopriva	S3-30	S. J. Trent	E6-35
H. K. Meznarich	S3-30	File/LB	
P. D. Mix	S3-30		

Subject: FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20081339 – SAF NUMBER F06-027

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

(2) HNF-SD-CD-QAPP-017, Rev. 9, Waste Sampling & Characterization Facility Quality Assurance Plan

This letter contains the following attachments for sample delivery group WSCF20081339:

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

SLF/grf

Attachments 4

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ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20081339
Data Deliverable Date: 16-jul-2008
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
F06-027	B1W627	W08GR02074	WATER
	B1W628	W08GR02075	WATER
	B1W629	W08GR02076	WATER
	B1W718	W08GR02071	WATER
	B1W719	W08GR02072	WATER
	B1W720	W08GR02073	WATER

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ATTACHMENT 2

NARRATIVE

**Consisting of 3 pages
Including cover page**

Introduction

Six S&GRP samples were received at the WSCF Laboratory on July 2, 2008. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter.

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

It should be noted that the attached chain of custody was stamped “ICED” 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*, page 10, for a complete listing of approved analytical methods.

Inorganic Comments

Anions – The regulatory hold time requirement was met. Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with each batch in this delivery group per GRP Letter of Instruction. See pages 23 through 28 for QC details. Analytical Note(s):

- Duplicates, Matrix Spikes and Matrix Spike Duplicates were analyzed on samples B1VW87 and B1VW80 (SDG# 20081317, SAF# F06-027); and, B1VWC8 and B1VWC6 (SDG# 20081332, SAF# F06-027).
- 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 other QC controls are within the established limits.

ICP-AES Metals – The hold time requirement for this analysis was not met. See comment below. A Matrix Spike, Matrix Spike Duplicate, Blank, and Laboratory Control Sample were analyzed with each batch in this delivery group per the GRP Letter of Instruction. See pages 29 through 32 for details. Analytical Note(s):

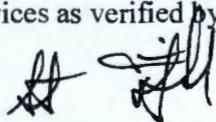
- Miss Hold Time – Samples were collected during the June 30th – July 2nd timeframe and delivered to the WSCF Laboratory on July 2, 2008. Samples were successfully analyzed

on July 3, 2008, within the 2X hold time extension. Refer to e-mail from Dana Widrig authorizing the 2X extension.

- Sample results were D flagged if dilution(s) were required.
- Duplicate, Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1VWC4 (SDG# 20081332, SAF# F06-027).
- Batch QC - B1VWC4
 - Calcium, Magnesium and Sodium sample results exceeded the spiking levels by a factor of four. Spike recoveries are not valid. Check standard was analyzed to ensure linearity because sample results were greater than the calibration standard.
 - Silver and Sodium contamination detected in the Blank was evaluated and affected sample results were C flagged.

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-08-772

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 27 pages
Including cover page

**WSCF
ANALYTICAL RESULTS REPORT**

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical:

H-FH S.F. Fitzgerald 8/1/08

Client Services:

C.D. P.D. Mix 8/1/2008

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.

Contract#: FH-EIS-2003-MEM-001

Report#: WSCF20081339

Report Date: 31-Jul-2008

Report WGPP/ver. 5.2

Groundwater Remediation Program

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20081339

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
36976	2	37409	41766	BLANK		Anions by Ion Chromatography
36976	13	37409	41766	BLANK		Anions by Ion Chromatography
36976	25	37409	41766	BLANK		Anions by Ion Chromatography
36976	3	37409	41766	LCS		Anions by Ion Chromatography
36976	14	37409	41766	LCS		Anions by Ion Chromatography
36976	5	37409	41766	DUP	W08GR02037	Anions by Ion Chromatography
36976	6	37409	41766	MS	W08GR02037	Anions by Ion Chromatography
36976	7	37409	41766	MSD	W08GR02037	Anions by Ion Chromatography
36976	7	37409	41766	SPK-RPD	W08GR02037	Anions by Ion Chromatography
36976	16	37409	41766	DUP	W08GR02065	Anions by Ion Chromatography
36976	17	37409	41766	MS	W08GR02065	Anions by Ion Chromatography
36976	18	37409	41766	MSD	W08GR02065	Anions by Ion Chromatography
36976	18	37409	41766	SPK-RPD	W08GR02065	Anions by Ion Chromatography
36976	19	37409	41766	SAMPLE	W08GR02072	Anions by Ion Chromatography
36976	21	37409	41766	SAMPLE	W08GR02073	Anions by Ion Chromatography
36976	22	37409	41766	SAMPLE	W08GR02074	Anions by Ion Chromatography
36976	23	37409	41766	SAMPLE	W08GR02075	Anions by Ion Chromatography
36976	24	37409	41766	SAMPLE	W08GR02076	Anions by Ion Chromatography
36979	2	37408	41779	BLANK		Anions by Ion Chromatography
36979	13	37408	41779	BLANK		Anions by Ion Chromatography
36979	24	37408	41779	BLANK		Anions by Ion Chromatography
36979	3	37408	41779	LCS		Anions by Ion Chromatography
36979	14	37408	41779	LCS		Anions by Ion Chromatography
36979	5	37408	41779	DUP	W08GR02030	Anions by Ion Chromatography
36979	6	37408	41779	MS	W08GR02030	Anions by Ion Chromatography
36979	7	37408	41779	MSD	W08GR02030	Anions by Ion Chromatography
36979	7	37408	41779	SPK-RPD	W08GR02030	Anions by Ion Chromatography
36979	16	37408	41779	DUP	W08GR02063	Anions by Ion Chromatography
36979	17	37408	41779	MS	W08GR02063	Anions by Ion Chromatography
36979	18	37408	41779	MSD	W08GR02063	Anions by Ion Chromatography
36979	18	37408	41779	SPK-RPD	W08GR02063	Anions by Ion Chromatography
36979	23	37408	41779	SAMPLE	W08GR02071	Anions by Ion Chromatography
37249	1	37676	42118	BLANK		ICP Metals Analysis, Grd H20 P
37249	2	37676	42118	LCS		ICP Metals Analysis, Grd H20 P
37249	4	37676	42118	MS	W08GR02061	ICP Metals Analysis, Grd H20 P
37249	5	37676	42118	MSD	W08GR02061	ICP Metals Analysis, Grd H20 P
37249	5	37676	42118	SPK-RPD	W08GR02061	ICP Metals Analysis, Grd H20 P
37249	15	37676	42118	SAMPLE	W08GR02071	ICP Metals Analysis, Grd H20 P
37249	16	37676	42118	SAMPLE	W08GR02072	ICP Metals Analysis, Grd H20 P
37249	17	37676	42118	SAMPLE	W08GR02073	ICP Metals Analysis, Grd H20 P
37249	18	37676	42118	SAMPLE	W08GR02074	ICP Metals Analysis, Grd H20 P
37249	19	37676	42118	SAMPLE	W08GR02075	ICP Metals Analysis, Grd H20 P
37249	20	37676	42118	SAMPLE	W08GR02076	ICP Metals Analysis, Grd H20 P

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-505-411	LA-505-411: ELEMENTAL ANALYSIS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPE HEIS 6010_METALS_ICP Inductively Coupled Plasma-Atomic Emission Spectrometry
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

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>.

Report Date: 31-jul-2008
Report#: WSCF20081339
Report WGPPM/5.2

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Page 1

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F06-027
Sample # W08GR02071
Client ID: B1W718

**TRENT
WSCF**

Matrix: WATER

Group #: WSCF20081339
Department: Inorganic
Sampled: 06/30/08
Received: 07/02/08

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	< 0.693	mg/L			33.00	0.69		07/03/08
Chloride	16887-00-6	LA-533-410	D	273	mg/L			33.00	3.6		07/03/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.327	mg/L			33.00	0.33		07/03/08
Nitrogen in Nitrate	NO3-N	LA-533-410	DU	< 1.19	mg/L			33.00	1.2		07/03/08
Phosphate (P) by IC	PO4-P	LA-533-410	D	1.39e+03	mg/L			2.01e+002	6.4		07/03/08
Sulfate	14808-79-8	LA-533-410	BD	15.7	mg/L			33.00	2.5		07/03/08
ICP Metals Analysis, Grd H20 P Prep											07/23/08
ICP Metals Analysis, Grd H20 P											
Aluminum	7429-90-5	LA-505-411	DU	< 260	ug/L			5.00	2.6e+02		07/28/08
Iron	7439-89-6	LA-505-411	DU	< 125	ug/L			5.00	1.2e+02		07/28/08
Magnesium	7439-95-4	LA-505-411	D	8.03e+03	ug/L			5.00	2.5e+02		07/28/08
Manganese	7439-96-5	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Nickel	7440-02-0	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Potassium	7440-09-7	LA-505-411	D	9.06e+03	ug/L			5.00	8.5e+02		07/28/08
Silver	7440-22-4	LA-505-411	CD	47.0	ug/L			5.00	25		07/28/08
Sodium	7440-23-5	LA-505-411	D	2.28e+06	ug/L			10.00	5.1e+02		07/28/08
Antimony	7440-36-0	LA-505-411	DU	< 280	ug/L			5.00	2.8e+02		07/28/08
Barium	7440-39-3	LA-505-411	D	36.0	ug/L			5.00	20		07/28/08
Cadmium	7440-43-9	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Chromium	7440-47-3	LA-505-411	DU	< 65.0	ug/L			5.00	65		07/28/08
Cobalt	7440-48-4	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Copper	7440-50-8	LA-505-411	DU	< 30.0	ug/L			5.00	30		07/28/08
Vanadium	7440-62-2	LA-505-411	DU	< 60.0	ug/L			5.00	60		07/28/08
Zinc	7440-66-6	LA-505-411	D	64.9	ug/L			5.00	45		07/28/08

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)

C - The Analyte was found in the Associated Blank.(inorg)

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

* - Indicates results that have NOT been validated;

+ - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F06-027
Sample # W08GR02071
Client ID: B1W718

TRENT
WSCF

Matrix: WATER

Group #: WSCF20081339
Department: Inorganic
Sampled: 06/30/08
Received: 07/02/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Calcium	7440-70-2	LA-505-411	D	1.79e+05	ug/L			5.00	3.6e+02		07/28/08
Lead	7439-92-1	LA-505-411	DU	< 225	ug/L			5.00	2.2e+02		07/28/08
Molybdenum	7439-98-7	LA-505-411	DU	< 25.0	ug/L			5.00	25		07/28/08
Strontium	7440-24-6	LA-505-411	D	2.86e+03	ug/L			5.00	20		07/28/08
Arsenic	7440-38-2	LA-505-411	DU	< 390	ug/L			5.00	3.9e+02		07/28/08

MDL=Minimum Detection Limit

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B - The analyte < the RDL but > = the IDL/MDL (inorg)

D - Analyte was identified at a secondary dilution factor(inorg)

C - The Analyte was found in the Associated Blank.(inorg)

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Report WGPP/ver. 5.2

Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F06-027
Sample # W08GR02072
Client ID: B1W719

**TRENT
WSCF**

Matrix: WATER

Group #: WSCF20081339
Department: Inorganic
Sampled: 07/01/08
Received: 07/02/08

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	< 4.22	mg/L			2.01e+002	4.2		07/03/08
Chloride	16887-00-6	LA-533-410	D	248	mg/L			2.01e+002	22		07/03/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 1.99	mg/L			2.01e+002	2.0		07/03/08
Nitrogen in Nitrate	NO3-N	LA-533-410	DU	< 7.24	mg/L			2.01e+002	7.2		07/03/08
Phosphate (P) by IC	PO4-P	LA-533-410	D	1.49e+03	mg/L			2.01e+002	6.4		07/03/08
Sulfate	14808-79-8	LA-533-410	BD	16.3	mg/L			2.01e+002	15		07/03/08
ICP Metals Analysis, Grd H20 P Prep											07/23/08
ICP Metals Analysis, Grd H20 P											
Aluminum	7429-90-5	LA-505-411	DU	< 260	ug/L			5.00	2.6e+02		07/28/08
Iron	7439-89-6	LA-505-411	DU	< 125	ug/L			5.00	1.2e+02		07/28/08
Magnesium	7439-95-4	LA-505-411	D	8.26e+03	ug/L			5.00	2.5e+02		07/28/08
Manganese	7439-96-5	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Nickel	7440-02-0	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Potassium	7440-09-7	LA-505-411	D	9.67e+03	ug/L			5.00	8.5e+02		07/28/08
Silver	7440-22-4	LA-505-411	DU	< 25.0	ug/L			5.00	25		07/28/08
Sodium	7440-23-5	LA-505-411	D	2.43e+06	ug/L			10.00	5.1e+02		07/28/08
Antimony	7440-36-0	LA-505-411	DU	< 280	ug/L			5.00	2.8e+02		07/28/08
Barium	7440-39-3	LA-505-411	D	35.0	ug/L			5.00	20		07/28/08
Cadmium	7440-43-9	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Chromium	7440-47-3	LA-505-411	DU	< 65.0	ug/L			5.00	65		07/28/08
Cobalt	7440-48-4	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Copper	7440-50-8	LA-505-411	DU	< 30.0	ug/L			5.00	30		07/28/08
Vanadium	7440-62-2	LA-505-411	DU	< 60.0	ug/L			5.00	60		07/28/08
Zinc	7440-66-6	LA-505-411	DU	< 45.0	ug/L			5.00	45		07/28/08

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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)

C - The Analyte was found in the Associated Blank.(inorg)

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* - Indicates results that have NOT been validated;

+ - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F06-027
Sample # W08GR02072
Client ID: B1W719

TRENT
 WSCF

Matrix: WATER

Group #: WSCF20081339
Department: Inorganic
Sampled: 07/01/08
Received: 07/02/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Calcium	7440-70-2	LA-505-411	D	1.90e+05	ug/L			5.00	3.6e+02		07/28/08
Lead	7439-92-1	LA-505-411	DU	< 225	ug/L			5.00	2.2e+02		07/28/08
Molybdenum	7439-98-7	LA-505-411	DU	< 25.0	ug/L			5.00	25		07/28/08
Strontium	7440-24-6	LA-505-411	D	3.03e+03	ug/L			5.00	20		07/28/08
Arsenic	7440-38-2	LA-505-411	DU	< 390	ug/L			5.00	3.9e+02		07/28/08

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)

C - The Analyte was found in the Associated Blank.(inorg)

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* - Indicates results that have NOT been validated;

+ - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F06-027
Sample # W08GR02073
Client ID: B1W720

**TRENT
WSCF**

Matrix: WATER

Group #: WSCF20081339
Department: Inorganic
Sampled: 07/02/08
Received: 07/02/08

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	< 0.693	mg/L			33.00	0.69		07/03/08
Chloride	16887-00-6	LA-533-410	D	289	mg/L			33.00	3.6		07/03/08
Nitrogen in Nitrite	NO2-N	LA-533-410	BD	1.23	mg/L			33.00	0.33		07/03/08
Nitrogen in Nitrate	NO3-N	LA-533-410	DU	< 1.19	mg/L			33.00	1.2		07/03/08
Phosphate (P) by IC	PO4-P	LA-533-410	D	1.43e+03	mg/L			2.01e+002	6.4		07/03/08
Sulfate	14808-79-8	LA-533-410	BD	17.2	mg/L			33.00	2.5		07/03/08
ICP Metals Analysis, Grd H2O P Prep											07/23/08
ICP Metals Analysis, Grd H2O P											
Aluminum	7429-90-5	LA-505-411	DU	< 260	ug/L			5.00	2.6e+02		07/28/08
Iron	7439-89-6	LA-505-411	DU	< 125	ug/L			5.00	1.2e+02		07/28/08
Magnesium	7439-95-4	LA-505-411	D	8.11e+03	ug/L			5.00	2.5e+02		07/28/08
Manganese	7439-96-5	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Nickel	7440-02-0	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Potassium	7440-09-7	LA-505-411	D	9.59e+03	ug/L			5.00	8.5e+02		07/28/08
Silver	7440-22-4	LA-505-411	DU	< 25.0	ug/L			5.00	25		07/28/08
Sodium	7440-23-5	LA-505-411	D	2.35e+06	ug/L			10.00	5.1e+02		07/28/08
Antimony	7440-36-0	LA-505-411	DU	< 280	ug/L			5.00	2.8e+02		07/28/08
Barium	7440-39-3	LA-505-411	D	36.0	ug/L			5.00	20		07/28/08
Cadmium	7440-43-9	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Chromium	7440-47-3	LA-505-411	DU	< 65.0	ug/L			5.00	65		07/28/08
Cobalt	7440-48-4	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Copper	7440-50-8	LA-505-411	DU	< 30.0	ug/L			5.00	30		07/28/08
Vanadium	7440-62-2	LA-505-411	DU	< 60.0	ug/L			5.00	60		07/28/08
Zinc	7440-66-6	LA-505-411	DU	< 45.0	ug/L			5.00	45		07/28/08

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)

C - The Analyte was found in the Associated Blank.(inorg)

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+ - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F06-027
Sample # W08GR02073
Client ID: B1W720

TRENT
WSCF

Matrix: WATER

Group #: WSCF20081339
Department: Inorganic
Sampled: 07/02/08
Received: 07/02/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Calcium	7440-70-2	LA-505-411	D	1.91e+05	ug/L			5.00	3.6e+02		07/28/08
Lead	7439-92-1	LA-505-411	DU	< 225	ug/L			5.00	2.2e+02		07/28/08
Molybdenum	7439-98-7	LA-505-411	DU	< 25.0	ug/L			5.00	25		07/28/08
Strontium	7440-24-6	LA-505-411	D	3.04e+03	ug/L			5.00	20		07/28/08
Arsenic	7440-38-2	LA-505-411	DU	< 390	ug/L			5.00	3.9e+02		07/28/08

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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C - The Analyte was found in the Associated Blank.(inorg)

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Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F06-027
Sample # W08GR02074
Client ID: B1W627

**TRENT
WSCF**

Matrix: WATER

Group #: WSCF20081339
Department: Inorganic
Sampled: 06/30/08
Received: 07/02/08

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	< 0.420	mg/L			20.00	0.42		07/03/08
Chloride	16887-00-6	LA-533-410	D	282	mg/L			20.00	2.2		07/03/08
Nitrogen in Nitrite	NO2-N	LA-533-410	BD	0.434	mg/L			20.00	0.20		07/03/08
Nitrogen in Nitrate	NO3-N	LA-533-410	BD	0.985	mg/L			20.00	0.72		07/03/08
Phosphate (P) by IC	PO4-P	LA-533-410	D	1.36e+03	mg/L			1.01e+002	3.2		07/03/08
Sulfate	14808-79-8	LA-533-410	BD	17.0	mg/L			20.00	1.5		07/03/08
ICP Metals Analysis, Grd H20 P Prep											07/23/08
ICP Metals Analysis, Grd H20 P											
Aluminum	7429-90-5	LA-505-411	DU	< 260	ug/L			5.00	2.6e+02		07/28/08
Iron	7439-89-6	LA-505-411	DU	< 125	ug/L			5.00	1.2e+02		07/28/08
Magnesium	7439-95-4	LA-505-411	D	7.14e+03	ug/L			5.00	2.5e+02		07/28/08
Manganese	7439-96-5	LA-505-411	D	21.0	ug/L			5.00	20		07/28/08
Nickel	7440-02-0	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Potassium	7440-09-7	LA-505-411	D	7.91e+03	ug/L			5.00	8.5e+02		07/28/08
Silver	7440-22-4	LA-505-411	DU	< 25.0	ug/L			5.00	25		07/28/08
Sodium	7440-23-5	LA-505-411	D	2.00e+06	ug/L			10.00	5.1e+02		07/28/08
Antimony	7440-36-0	LA-505-411	DU	< 280	ug/L			5.00	2.8e+02		07/28/08
Barium	7440-39-3	LA-505-411	D	33.0	ug/L			5.00	20		07/28/08
Cadmium	7440-43-9	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Chromium	7440-47-3	LA-505-411	DU	< 65.0	ug/L			5.00	65		07/28/08
Cobalt	7440-48-4	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Copper	7440-50-8	LA-505-411	DU	< 30.0	ug/L			5.00	30		07/28/08
Vanadium	7440-62-2	LA-505-411	DU	< 60.0	ug/L			5.00	60		07/28/08
Zinc	7440-66-6	LA-505-411	D	48.5	ug/L			5.00	45		07/28/08

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)

C - The Analyte was found in the Associated Blank.(inorg)

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+ - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F06-027
Sample # W08GR02074
Client ID: B1W627

**TRENT
WSCF**

Matrix: WATER

Group #: WSCF20081339
Department: Inorganic
Sampled: 06/30/08
Received: 07/02/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Calcium	7440-70-2	LA-505-411	D	1.66e+05	ug/L			5.00	3.6e+02		07/28/08
Lead	7439-92-1	LA-505-411	DU	< 225	ug/L			5.00	2.2e+02		07/28/08
Molybdenum	7439-98-7	LA-505-411	DU	< 25.0	ug/L			5.00	25		07/28/08
Strontium	7440-24-6	LA-505-411	D	2.60e+03	ug/L			5.00	20		07/28/08
Arsenic	7440-38-2	LA-505-411	DU	< 390	ug/L			5.00	3.9e+02		07/28/08

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)

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Report WGPP/ver. 5.2
Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F06-027
Sample # W08GR02075
Client ID: B1W628

TRENT
WSCF

Matrix: WATER

Group #: WSCF20081339
Department: Inorganic
Sampled: 07/01/08
Received: 07/02/08

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	< 0.420	mg/L			20.00	0.42		07/03/08
Chloride	16887-00-6	LA-533-410	D	272	mg/L			20.00	2.2		07/03/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.198	mg/L			20.00	0.20		07/03/08
Nitrogen in Nitrate	NO3-N	LA-533-410	DU	< 0.720	mg/L			20.00	0.72		07/03/08
Phosphate (P) by IC	PO4-P	LA-533-410	D	1.45e+03	mg/L			2.01e+002	6.4		07/03/08
Sulfate	14808-79-8	LA-533-410	BD	16.0	mg/L			20.00	1.5		07/03/08
ICP Metals Analysis, Grd H2O P Prep											07/23/08
ICP Metals Analysis, Grd H2O P											
Aluminum	7429-90-5	LA-505-411	DU	< 260	ug/L			5.00	2.6e+02		07/28/08
Iron	7439-89-6	LA-505-411	DU	< 125	ug/L			5.00	1.2e+02		07/28/08
Magnesium	7439-95-4	LA-505-411	D	7.46e+03	ug/L			5.00	2.5e+02		07/28/08
Manganese	7439-96-5	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Nickel	7440-02-0	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Potassium	7440-09-7	LA-505-411	D	8.53e+03	ug/L			5.00	8.5e+02		07/28/08
Silver	7440-22-4	LA-505-411	DU	< 25.0	ug/L			5.00	25		07/28/08
Sodium	7440-23-5	LA-505-411	D	2.13e+06	ug/L			10.00	5.1e+02		07/28/08
Antimony	7440-36-0	LA-505-411	DU	< 280	ug/L			5.00	2.8e+02		07/28/08
Barium	7440-39-3	LA-505-411	D	32.0	ug/L			5.00	20		07/28/08
Cadmium	7440-43-9	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Chromium	7440-47-3	LA-505-411	DU	< 65.0	ug/L			5.00	65		07/28/08
Cobalt	7440-48-4	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Copper	7440-50-8	LA-505-411	DU	< 30.0	ug/L			5.00	30		07/28/08
Vanadium	7440-62-2	LA-505-411	DU	< 60.0	ug/L			5.00	60		07/28/08
Zinc	7440-66-6	LA-505-411	DU	< 45.0	ug/L			5.00	45		07/28/08

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

* - Indicates results that have NOT been validated;

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Report WGPP/ver. 5.2

Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F06-027
Sample # W08GR02075
Client ID: B1W628

**TRENT
WSCF**

Matrix: WATER

Group #: WSCF20081339
Department: Inorganic
Sampled: 07/01/08
Received: 07/02/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Calcium	7440-70-2	LA-505-411	D	1.70e+05	ug/L			5.00	3.6e+02		07/28/08
Lead	7439-92-1	LA-505-411	DU	< 225	ug/L			5.00	2.2e+02		07/28/08
Molybdenum	7439-98-7	LA-505-411	DU	< 25.0	ug/L			5.00	25		07/28/08
Strontium	7440-24-8	LA-505-411	D	2.67e+03	ug/L			5.00	20		07/28/08
Arsenic	7440-38-2	LA-505-411	DU	< 390	ug/L			5.00	3.9e+02		07/28/08

MDL=Minimum Detection Limit

RQ=Result Qualifier

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Report WGPP/ver. 5.2

Groundwater Remediation Program

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WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F06-027
Sample # W08GR02076
Client ID: B1W629

TRENT
WSCF

Matrix: WATER

Group #: WSCF20081339
Department: Inorganic
Sampled: 07/02/08
Received: 07/02/08

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	< 0.693	mg/L			33.00	0.69		07/03/08
Chloride	16887-00-6	LA-533-410	D	276	mg/L			33.00	3.6		07/03/08
Nitrogen in Nitrite	NO2-N	LA-533-410	BD	0.532	mg/L			33.00	0.33		07/03/08
Nitrogen in Nitrate	NO3-N	LA-533-410	DU	< 1.19	mg/L			33.00	1.2		07/03/08
Phosphate (P) by IC	PO4-P	LA-533-410	D	1.47e+03	mg/L			2.01e+002	6.4		07/03/08
Sulfate	14808-79-8	LA-533-410	BD	16.5	mg/L			33.00	2.5		07/03/08
ICP Metals Analysis, Grd H20 P Prep											07/23/08
ICP Metals Analysis, Grd H20 P											
Aluminum	7429-90-5	LA-505-411	DU	< 260	ug/L			5.00	2.6e+02		07/28/08
Iron	7439-89-6	LA-505-411	DU	< 125	ug/L			5.00	1.2e+02		07/28/08
Magnesium	7439-95-4	LA-505-411	D	7.85e+03	ug/L			5.00	2.5e+02		07/28/08
Manganese	7439-96-5	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Nickel	7440-02-0	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Potassium	7440-09-7	LA-505-411	D	8.99e+03	ug/L			5.00	8.5e+02		07/28/08
Silver	7440-22-4	LA-505-411	DU	< 25.0	ug/L			5.00	25		07/28/08
Sodium	7440-23-5	LA-505-411	D	2.15e+06	ug/L			10.00	5.1e+02		07/28/08
Antimony	7440-36-0	LA-505-411	DU	< 280	ug/L			5.00	2.8e+02		07/28/08
Barium	7440-39-3	LA-505-411	D	35.0	ug/L			5.00	20		07/28/08
Cadmium	7440-43-9	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Chromium	7440-47-3	LA-505-411	DU	< 65.0	ug/L			5.00	65		07/28/08
Cobalt	7440-48-4	LA-505-411	DU	< 20.0	ug/L			5.00	20		07/28/08
Copper	7440-50-8	LA-505-411	DU	< 30.0	ug/L			5.00	30		07/28/08
Vanadium	7440-62-2	LA-505-411	DU	< 60.0	ug/L			5.00	60		07/28/08
Zinc	7440-66-6	LA-505-411	DU	< 45.0	ug/L			5.00	45		07/28/08

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

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Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F06-027
Sample # W08GR02076
Client ID: B1W629

**TRENT
WSCF**

Matrix: WATER

Group #: WSCF20081339
Department: Inorganic
Sampled: 07/02/08
Received: 07/02/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Calcium	7440-70-2	LA-505-411	D	1.78e+05	ug/L			5.00	3.6e+02		07/28/08
Lead	7439-92-1	LA-505-411	DU	< 225	ug/L			5.00	2.2e+02		07/28/08
Molybdenum	7439-98-7	LA-505-411	DU	< 25.0	ug/L			5.00	25		07/28/08
Strontium	7440-24-6	LA-505-411	D	2.83e+03	ug/L			5.00	20		07/28/08
Arsenic	7440-38-2	LA-505-411	DU	< 390	ug/L			5.00	3.9e+02		07/28/08

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

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B - The analyte < the RDL but > = the IDL/MDL (inorg)

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C - The Analyte was found in the Associated Blank.(inorg)

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Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081339
 Matrix: WATER
 Test: Anions by Ion Chromatography

Sample Date: 07/01/08
 Receive Date: 07/01/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02037											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Chloride	16887-00-6	5.7667		RPD			0.884	20.000		07/03/08
DUP	Fluoride	16984-48-8	<0.21		RPD			n/a	20.000	U	07/03/08
DUP	Nitrogen in Nitrite	NO2-N	<9.9e-2		RPD			n/a	20.000	U	07/03/08
DUP	Nitrogen in Nitrate	NO3-N	<0.36		RPD			n/a	20.000	U	07/03/08
DUP	Phosphate (P) by IC	PO4-P	17.6105		RPD			0.916	20.000		07/03/08
DUP	Sulfate	14808-79-8	5.9052		RPD			2.053	20.000		07/03/08
MS	Chloride	16887-00-6	0.90145	90.598	% Recov	80.000	120.000				07/03/08
MS	Fluoride	16984-48-8	0.48158	97.684	% Recov	80.000	120.000				07/03/08
MS	Nitrogen in Nitrite	NO2-N	0.4686	95.244	% Recov	80.000	120.000				07/03/08
MS	Nitrogen in Nitrate	NO3-N	0.45449	101.904	% Recov	80.000	120.000				07/03/08
MS	Phosphate (P) by IC	PO4-P	0.97884	102.282	% Recov	80.000	120.000				07/03/08
MS	Sulfate	14808-79-8	1.75139	89.357	% Recov	80.000	120.000				07/03/08
MSD	Chloride	16887-00-6	0.91047	91.505	% Recov	80.000	120.000				07/03/08
MSD	Fluoride	16984-48-8	0.48537	98.452	% Recov	80.000	120.000				07/03/08
MSD	Nitrogen in Nitrite	NO2-N	0.47004	95.537	% Recov	80.000	120.000				07/03/08
MSD	Nitrogen in Nitrate	NO3-N	0.45661	102.379	% Recov	80.000	120.000				07/03/08
MSD	Phosphate (P) by IC	PO4-P	0.95276	99.557	% Recov	80.000	120.000				07/03/08
MSD	Sulfate	14808-79-8	1.74055	88.804	% Recov	80.000	120.000				07/03/08
SPK-RPD	Chloride	16887-00-6	91.505		RPD			0.996	20.000		07/03/08
SPK-RPD	Fluoride	16984-48-8	98.452		RPD			0.783	20.000		07/03/08
SPK-RPD	Nitrogen in Nitrite	NO2-N	95.537		RPD			0.307	20.000		07/03/08
SPK-RPD	Nitrogen in Nitrate	NO3-N	102.379		RPD			0.465	20.000		07/03/08
SPK-RPD	Phosphate (P) by IC	PO4-P	99.557		RPD			2.700	20.000		07/03/08
SPK-RPD	Sulfate	14808-79-8	88.804		RPD			0.621	20.000		07/03/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081339
 Matrix: WATER
 Test: Anions by Ion Chromatography

Sample Date: 07/02/08
 Receive Date: 07/02/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02065											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Chloride	16887-00-6	<1.1		RPD			n/a	20.000	U	07/03/08
DUP	Fluoride	16984-48-8	<0.21		RPD			n/a	20.000	U	07/03/08
DUP	Nitrogen in Nitrite	NO2-N	<9.9e-2		RPD			n/a	20.000	U	07/03/08
DUP	Nitrogen in Nitrate	NO3-N	<0.36		RPD			n/a	20.000	U	07/03/08
DUP	Phosphate (P) by IC	PO4-P	0.3639		RPD			1.986	20.000		07/03/08
DUP	Sulfate	14808-79-8	6.0586		RPD			0.274	20.000		07/03/08
MS	Chloride	16887-00-6	0.93846	94.318	% Recov	80.000	120.000				07/03/08
MS	Fluoride	16984-48-8	0.43032	87.286	% Recov	80.000	120.000				07/03/08
MS	Nitrogen in Nitrite	NO2-N	0.45897	93.287	% Recov	80.000	120.000				07/03/08
MS	Nitrogen in Nitrate	NO3-N	0.43772	98.143	% Recov	80.000	120.000				07/03/08
MS	Phosphate (P) by IC	PO4-P	0.86205	90.078	% Recov	80.000	120.000				07/03/08
MS	Sulfate	14808-79-8	1.74538	89.050	% Recov	80.000	120.000				07/03/08
MSD	Chloride	16887-00-6	0.93768	94.239	% Recov	80.000	120.000				07/03/08
MSD	Fluoride	16984-48-8	0.43225	87.677	% Recov	80.000	120.000				07/03/08
MSD	Nitrogen in Nitrite	NO2-N	0.45824	93.138	% Recov	80.000	120.000				07/03/08
MSD	Nitrogen in Nitrate	NO3-N	0.43876	98.377	% Recov	80.000	120.000				07/03/08
MSD	Phosphate (P) by IC	PO4-P	0.86722	90.619	% Recov	80.000	120.000				07/03/08
MSD	Sulfate	14808-79-8	1.72631	88.077	% Recov	80.000	120.000				07/03/08
SPK-RPD	Chloride	16887-00-6	94.239		RPD			0.084	20.000		07/03/08
SPK-RPD	Fluoride	16984-48-8	87.677		RPD			0.447	20.000		07/03/08
SPK-RPD	Nitrogen in Nitrite	NO2-N	93.138		RPD			0.160	20.000		07/03/08
SPK-RPD	Nitrogen in Nitrate	NO3-N	98.377		RPD			0.238	20.000		07/03/08
SPK-RPD	Phosphate (P) by IC	PO4-P	90.619		RPD			0.599	20.000		07/03/08
SPK-RPD	Sulfate	14808-79-8	88.077		RPD			1.099	20.000		07/03/08
BATCH QC											
BLANK	Chloride	16887-00-6	<0.11	n/a	mg/L	0.000	0.030			U	07/03/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081339
 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	Chloride	16887-00-6	<0.11	n/a	mg/L	0.000	0.030			U	07/03/08
BLANK	Chloride	16887-00-6	<0.11	n/a	mg/L	0.000	0.030			U	07/03/08
BLANK	Fluoride	16984-48-8	<2.1e-2	n/a	mg/L	0.000	0.030			U	07/03/08
BLANK	Fluoride	16984-48-8	<2.1e-2	n/a	mg/L	0.000	0.030			U	07/03/08
BLANK	Fluoride	16984-48-8	<2.1e-2	n/a	mg/L	0.000	0.030			U	07/03/08
BLANK	Nitrogen in Nitrite	NO2-N	<9.9e-3	n/a	mg/L	0.000	0.020			U	07/03/08
BLANK	Nitrogen in Nitrite	NO2-N	<9.9e-3	n/a	mg/L	0.000	0.020			U	07/03/08
BLANK	Nitrogen in Nitrite	NO2-N	<9.9e-3	n/a	mg/L	0.000	0.020			U	07/03/08
BLANK	Nitrogen in Nitrate	NO3-N	<3.6e-2	n/a	mg/L	0.000	0.040			U	07/03/08
BLANK	Nitrogen in Nitrate	NO3-N	<3.6e-2	n/a	mg/L	0.000	0.040			U	07/03/08
BLANK	Nitrogen in Nitrate	NO3-N	<3.6e-2	n/a	mg/L	0.000	0.040			U	07/03/08
BLANK	Phosphate (P) by IC	PO4-P	<3.2e-2	n/a	mg/L	0.000	0.200			U	07/03/08
BLANK	Phosphate (P) by IC	PO4-P	<3.2e-2	n/a	mg/L	0.000	0.200			U	07/03/08
BLANK	Phosphate (P) by IC	PO4-P	<3.2e-2	n/a	mg/L	0.000	0.200			U	07/03/08
BLANK	Sulfate	14808-79-8	<7.7e-2	n/a	mg/L	0.000	0.200			U	07/03/08
BLANK	Sulfate	14808-79-8	<7.7e-2	n/a	mg/L	0.000	0.200			U	07/03/08
BLANK	Sulfate	14808-79-8	<7.7e-2	n/a	mg/L	0.000	0.200			U	07/03/08
LCS	Chloride	16887-00-6	193.6552	96.346	% Recov	80.000	120.000				07/03/08
LCS	Chloride	16887-00-6	193.8002	96.418	% Recov	80.000	120.000				07/03/08
LCS	Fluoride	16984-48-8	104.5897	105.010	% Recov	80.000	120.000				07/03/08
LCS	Fluoride	16984-48-8	104.1496	104.568	% Recov	80.000	120.000				07/03/08
LCS	Nitrogen in Nitrite	NO2-N	101.3258	101.937	% Recov	80.000	120.000				07/03/08
LCS	Nitrogen in Nitrite	NO2-N	102.1037	102.720	% Recov	80.000	120.000				07/03/08
LCS	Nitrogen in Nitrate	NO3-N	92.9172	103.127	% Recov	80.000	120.000				07/03/08
LCS	Nitrogen in Nitrate	NO3-N	93.6692	103.961	% Recov	80.000	120.000				07/03/08
LCS	Phosphate (P) by IC	PO4-P	195.9409	101.314	% Recov	80.000	120.000				07/03/08
LCS	Phosphate (P) by IC	PO4-P	197.0126	101.868	% Recov	80.000	120.000				07/03/08
LCS	Sulfate	14808-79-8	373.3805	94.288	% Recov	80.000	120.000				07/03/08
LCS	Sulfate	14808-79-8	375.9033	94.925	% Recov	80.000	120.000				07/03/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081339
 Matrix: WATER
 Test: Anions by Ion Chromatography

Sample Date: 07/01/08
 Receive Date: 07/01/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02030											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Chloride	16887-00-6	54.3086		RPD			0.632	20.000		07/03/08
DUP	Fluoride	16984-48-8	<0.21		RPD			n/a	20.000	U	07/03/08
DUP	Nitrogen in Nitrite	NO2-N	<9.9e-2		RPD			n/a	20.000	U	07/03/08
DUP	Nitrogen in Nitrate	NO3-N	<0.36		RPD			n/a	20.000	U	07/03/08
DUP	Phosphate (P) by IC	PO4-P	13.3473		RPD			0.422	20.000		07/03/08
DUP	Sulfate	14808-79-8	15.3625		RPD			3.456	20.000		07/03/08
MS	Chloride	16887-00-6	0.92117	92.580	% Recov	80.000	120.000				07/03/08
MS	Fluoride	16984-48-8	0.45936	93.176	% Recov	80.000	120.000				07/03/08
MS	Nitrogen in Nitrite	NO2-N	0.48309	94.124	% Recov	80.000	120.000				07/03/08
MS	Nitrogen in Nitrate	NO3-N	0.43429	97.374	% Recov	80.000	120.000				07/03/08
MS	Phosphate (P) by IC	PO4-P	1.0241	107.011	% Recov	80.000	120.000				07/03/08
MS	Sulfate	14808-79-8	1.91564	97.737	% Recov	80.000	120.000				07/03/08
MSD	Chloride	16887-00-6	0.83737	84.158	% Recov	80.000	120.000				07/03/08
MSD	Fluoride	16984-48-8	0.44168	89.590	% Recov	80.000	120.000				07/03/08
MSD	Nitrogen in Nitrite	NO2-N	0.44884	91.228	% Recov	80.000	120.000				07/03/08
MSD	Nitrogen in Nitrate	NO3-N	0.43627	97.818	% Recov	80.000	120.000				07/03/08
MSD	Phosphate (P) by IC	PO4-P	1.02128	106.717	% Recov	80.000	120.000				07/03/08
MSD	Sulfate	14808-79-8	1.92682	98.307	% Recov	80.000	120.000				07/03/08
SPK-RPD	Chloride	16887-00-6	84.158		RPD			9.530	20.000		07/03/08
SPK-RPD	Fluoride	16984-48-8	89.590		RPD			3.924	20.000		07/03/08
SPK-RPD	Nitrogen in Nitrite	NO2-N	91.228		RPD			3.125	20.000		07/03/08
SPK-RPD	Nitrogen in Nitrate	NO3-N	97.818		RPD			0.455	20.000		07/03/08
SPK-RPD	Phosphate (P) by IC	PO4-P	106.717		RPD			0.275	20.000		07/03/08
SPK-RPD	Sulfate	14808-79-8	98.307		RPD			0.582	20.000		07/03/08

Lab ID: W08GR02063
 BATCH QC ASSOCIATED WITH SAMPLE

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081339
 Matrix: WATER
 Test: Anions by Ion Chromatography

Sample Date: 07/02/08
 Receive Date: 07/02/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
DUP	Chloride	16887-00-6	35.1737		RPD			0.540	20.000		07/03/08
DUP	Fluoride	16984-48-8	<0.21		RPD			n/a	20.000	U	07/03/08
DUP	Nitrogen in Nitrite	NO2-N	<9.9e-2		RPD			n/a	20.000	U	07/03/08
DUP	Nitrogen in Nitrate	NO3-N	<0.36		RPD			n/a	20.000	U	07/03/08
DUP	Phosphate (P) by IC	PO4-P	20.3172		RPD			0.800	20.000		07/03/08
DUP	Sulfate	14808-79-8	16.1063		RPD			0.825	20.000		07/03/08
MS	Chloride	16887-00-6	0.98319	98.813	% Recov	80.000	120.000				07/03/08
MS	Fluoride	16984-48-8	0.43094	87.412	% Recov	80.000	120.000				07/03/08
MS	Nitrogen in Nitrite	NO2-N	0.4637	94.248	% Recov	80.000	120.000				07/03/08
MS	Nitrogen in Nitrate	NO3-N	0.44342	99.422	% Recov	80.000	120.000				07/03/08
MS	Phosphate (P) by IC	PO4-P	1.10837	115.817	% Recov	80.000	120.000				07/03/08
MS	Sulfate	14808-79-8	2.0102	102.561	% Recov	80.000	120.000				07/03/08
MSD	Chloride	16887-00-6	0.91202	91.660	% Recov	80.000	120.000				07/03/08
MSD	Fluoride	16984-48-8	0.46032	93.371	% Recov	80.000	120.000				07/03/08
MSD	Nitrogen in Nitrite	NO2-N	0.46857	95.238	% Recov	80.000	120.000				07/03/08
MSD	Nitrogen in Nitrate	NO3-N	0.4363	97.825	% Recov	80.000	120.000				07/03/08
MSD	Phosphate (P) by IC	PO4-P	1.12458	117.511	% Recov	80.000	120.000				07/03/08
MSD	Sulfate	14808-79-8	2.01834	102.977	% Recov	80.000	120.000				07/03/08
SPK-RPD	Chloride	16887-00-6	91.660		RPD			7.511	20.000		07/03/08
SPK-RPD	Fluoride	16984-48-8	93.371		RPD			6.592	20.000		07/03/08
SPK-RPD	Nitrogen in Nitrite	NO2-N	95.238		RPD			1.045	20.000		07/03/08
SPK-RPD	Nitrogen in Nitrate	NO3-N	97.825		RPD			1.619	20.000		07/03/08
SPK-RPD	Phosphate (P) by IC	PO4-P	117.511		RPD			1.452	20.000		07/03/08
SPK-RPD	Sulfate	14808-79-8	102.977		RPD			0.405	20.000		07/03/08
BATCH QC											
BLANK	Chloride	16887-00-6	<0.11	n/a	mg/L	0.000	0.030			U	07/03/08
BLANK	Chloride	16887-00-6	<0.11	n/a	mg/L	0.000	0.030			U	07/03/08
BLANK	Chloride	16887-00-6	<0.11	n/a	mg/L	0.000	0.030			U	07/03/08
BLANK	Fluoride	16984-48-8	<2.1e-2	n/a	mg/L	0.000	0.030			U	07/03/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081339
 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	Fluoride	16984-48-8	< 2.1e-2	n/a	mg/L	0.000	0.030			U	07/03/08
BLANK	Fluoride	16984-48-8	< 2.1e-2	n/a	mg/L	0.000	0.030			U	07/03/08
BLANK	Nitrogen in Nitrite	NO2-N	< 9.9e-3	n/a	mg/L	0.000	0.020			U	07/03/08
BLANK	Nitrogen in Nitrite	NO2-N	< 9.9e-3	n/a	mg/L	0.000	0.020			U	07/03/08
BLANK	Nitrogen in Nitrite	NO2-N	< 9.9e-3	n/a	mg/L	0.000	0.020			U	07/03/08
BLANK	Nitrogen in Nitrate	NO3-N	< 3.6e-2	n/a	mg/L	0.000	0.040			U	07/03/08
BLANK	Nitrogen in Nitrate	NO3-N	< 3.6e-2	n/a	mg/L	0.000	0.040			U	07/03/08
BLANK	Nitrogen in Nitrate	NO3-N	< 3.6e-2	n/a	mg/L	0.000	0.040			U	07/03/08
BLANK	Phosphate (P) by IC	PO4-P	< 3.2e-2	n/a	mg/L	0.000	0.200			U	07/03/08
BLANK	Phosphate (P) by IC	PO4-P	< 3.2e-2	n/a	mg/L	0.000	0.200			U	07/03/08
BLANK	Phosphate (P) by IC	PO4-P	< 3.2e-2	n/a	mg/L	0.000	0.200			U	07/03/08
BLANK	Sulfate	14808-79-8	< 7.7e-2	n/a	mg/L	0.000	0.200			U	07/03/08
BLANK	Sulfate	14808-79-8	< 7.7e-2	n/a	mg/L	0.000	0.200			U	07/03/08
BLANK	Sulfate	14808-79-8	< 7.7e-2	n/a	mg/L	0.000	0.200			U	07/03/08
LCS	Chloride	16887-00-6	201.4747	100.236	% Recov	80.000	120.000				07/03/08
LCS	Chloride	16887-00-6	201.0914	100.045	% Recov	80.000	120.000				07/03/08
LCS	Fluoride	16984-48-8	105.3671	105.790	% Recov	80.000	120.000				07/03/08
LCS	Fluoride	16984-48-8	103.1168	103.531	% Recov	80.000	120.000				07/03/08
LCS	Nitrogen in Nitrite	NO2-N	99.8377	100.440	% Recov	80.000	120.000				07/03/08
LCS	Nitrogen in Nitrite	NO2-N	100.9664	101.576	% Recov	80.000	120.000				07/03/08
LCS	Nitrogen in Nitrate	NO3-N	92.9861	103.203	% Recov	80.000	120.000				07/03/08
LCS	Nitrogen in Nitrate	NO3-N	93.3821	103.643	% Recov	80.000	120.000				07/03/08
LCS	Phosphate (P) by IC	PO4-P	200.1299	103.480	% Recov	80.000	120.000				07/03/08
LCS	Phosphate (P) by IC	PO4-P	198.9646	102.877	% Recov	80.000	120.000				07/03/08
LCS	Sulfate	14808-79-8	401.0629	101.279	% Recov	80.000	120.000				07/03/08
LCS	Sulfate	14808-79-8	400.1272	101.042	% Recov	80.000	120.000				07/03/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081339
 Matrix: WATER
 Test: ICP Metals Analysis, Grd H2O P

Sample Date: 07/02/08
 Receive Date: 07/02/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02061											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Silver	7440-22-4	4870	97.400	% Recov	75.000	125.000				07/28/08
MS	Aluminum	7429-90-5	5114	102.280	% Recov	75.000	125.000				07/28/08
MS	Arsenic	7440-38-2	5000	100.000	% Recov	75.000	125.000				07/28/08
MS	Barium	7440-39-3	2456	98.240	% Recov	75.000	125.000				07/28/08
MS	Calcium	7440-70-2	7300	146.000	% Recov	75.000	125.000				07/28/08
MS	Cadmium	7440-43-9	4909	98.180	% Recov	75.000	125.000				07/28/08
MS	Cobalt	7440-48-4	4838	96.760	% Recov	75.000	125.000				07/28/08
MS	Chromium	7440-47-3	4884	97.680	% Recov	75.000	125.000				07/28/08
MS	Copper	7440-50-8	4960	99.200	% Recov	75.000	125.000				07/28/08
MS	Iron	7439-89-6	4888.4	97.768	% Recov	75.000	125.000				07/28/08
MS	Potassium	7440-09-7	50600	101.200	% Recov	75.000	125.000				07/28/08
MS	Magnesium	7439-95-4	5630	112.600	% Recov	75.000	125.000				07/28/08
MS	Manganese	7439-96-5	5020	100.400	% Recov	75.000	125.000				07/28/08
MS	Molybdenum	7439-98-7	4395	87.900	% Recov	70.000	130.000				07/28/08
MS	Sodium	7440-23-5	3000	60.000	% Recov	75.000	125.000				07/28/08
MS	Nickel	7440-02-0	4729.9	94.598	% Recov	75.000	125.000				07/28/08
MS	Lead	7439-92-1	5080	101.600	% Recov	75.000	125.000				07/28/08
MS	Antimony	7440-36-0	4922	98.440	% Recov	75.000	125.000				07/28/08
MS	Strontium	7440-24-6	2566.9	102.676	% Recov	75.000	125.000				07/28/08
MS	Vanadium	7440-62-2	4860	97.200	% Recov	75.000	125.000				07/28/08
MS	Zinc	7440-66-6	4875	97.500	% Recov	75.000	125.000				07/28/08
MSD	Silver	7440-22-4	4790	95.800	% Recov	75.000	125.000				07/28/08
MSD	Aluminum	7429-90-5	4884	97.680	% Recov	75.000	125.000				07/28/08
MSD	Arsenic	7440-38-2	5100	102.000	% Recov	75.000	125.000				07/28/08
MSD	Barium	7440-39-3	2396	95.840	% Recov	75.000	125.000				07/28/08
MSD	Calcium	7440-70-2	2300	48.000	% Recov	75.000	125.000				07/28/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081339
 Matrix: WATER
 Test: ICP Metals Analysis, Grd H2O P

Sample Date: 07/02/08
 Receive Date: 07/02/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Cadmium	7440-43-9	4824	96.480	% Recov	75.000	125.000				07/28/08
MSD	Cobalt	7440-48-4	4717	94.340	% Recov	75.000	125.000				07/28/08
MSD	Chromium	7440-47-3	4783	95.660	% Recov	75.000	125.000				07/28/08
MSD	Copper	7440-50-8	4820	96.400	% Recov	75.000	125.000				07/28/08
MSD	Iron	7439-89-6	4809.4	96.188	% Recov	75.000	125.000				07/28/08
MSD	Potassium	7440-09-7	49190	98.380	% Recov	75.000	125.000				07/28/08
MSD	Magnesium	7439-95-4	4180	83.600	% Recov	75.000	125.000				07/28/08
MSD	Manganese	7439-96-5	4860	97.200	% Recov	75.000	125.000				07/28/08
MSD	Molybdenum	7439-98-7	4312	86.240	% Recov	75.000	125.000				07/28/08
MSD	Sodium	7440-23-5	-44000	-880.000	% Recov	75.000	125.000				07/28/08
MSD	Nickel	7440-02-0	4631.9	92.638	% Recov	75.000	125.000				07/28/08
MSD	Lead	7439-92-1	5060	101.200	% Recov	75.000	125.000				07/28/08
MSD	Antimony	7440-36-0	4723	94.460	% Recov	75.000	125.000				07/28/08
MSD	Strontium	7440-24-6	2483.9	99.356	% Recov	75.000	125.000				07/28/08
MSD	Vanadium	7440-62-2	4760	95.200	% Recov	75.000	125.000				07/28/08
MSD	Zinc	7440-66-6	4755	95.100	% Recov	75.000	125.000				07/28/08
SPK-RPD	Silver	7440-22-4	95.800		RPD			1.856	20.000		07/28/08
SPK-RPD	Aluminum	7429-90-5	97.680		RPD			4.601	20.000		07/28/08
SPK-RPD	Arsenic	7440-38-2	102.000		RPD			1.980	20.000		07/28/08
SPK-RPD	Barium	7440-39-3	95.840		RPD			2.473	20.000		07/28/08
SPK-RPD	Calcium	7440-70-2	46.000		RPD			104.167	20.000		07/28/08
SPK-RPD	Cadmium	7440-43-9	96.480		RPD			1.747	20.000		07/28/08
SPK-RPD	Cobalt	7440-48-4	94.340		RPD			2.533	20.000		07/28/08
SPK-RPD	Chromium	7440-47-3	95.660		RPD			2.090	20.000		07/28/08
SPK-RPD	Copper	7440-50-8	96.400		RPD			2.863	20.000		07/28/08
SPK-RPD	Iron	7439-89-6	96.188		RPD			1.629	20.000		07/28/08
SPK-RPD	Potassium	7440-09-7	98.380		RPD			2.826	20.000		07/28/08
SPK-RPD	Magnesium	7439-95-4	83.600		RPD			29.562	20.000		07/28/08
SPK-RPD	Manganese	7439-96-5	97.200		RPD			3.239	20.000		07/28/08
SPK-RPD	Molybdenum	7439-98-7	86.240		RPD			1.907	20.000		07/28/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081339
 Matrix: WATER
 Test: ICP Metals Analysis, Grd H20 P

Sample Date: 07/02/08
 Receive Date: 07/02/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	Sodium	7440-23-5	-880.000		RPD			-229.268	20.000 *		07/28/08
SPK-RPD	Nickel	7440-02-0	92.638		RPD			2.094	20.000		07/28/08
SPK-RPD	Lead	7439-92-1	101.200		RPD			0.394	20.000		07/28/08
SPK-RPD	Antimony	7440-36-0	94.460		RPD			4.126	20.000		07/28/08
SPK-RPD	Strontium	7440-24-6	99.356		RPD			3.287	20.000		07/28/08
SPK-RPD	Vanadium	7440-62-2	95.200		RPD			2.079	20.000		07/28/08
SPK-RPD	Zinc	7440-66-6	95.100		RPD			2.492	20.000		07/28/08

BATCH QC

BLANK	Silver	7440-22-4	6	6.000	ug/L						07/28/08
BLANK	Aluminum	7429-90-5	< 52	n/a	ug/L					U	07/28/08
BLANK	Arsenic	7440-38-2	< 78	n/a	ug/L					U	07/28/08
BLANK	Barium	7440-39-3	< 4	n/a	ug/L					U	07/28/08
BLANK	Calcium	7440-70-2	< 73	n/a	ug/L					U	07/28/08
BLANK	Cadmium	7440-43-9	< 4	n/a	ug/L					U	07/28/08
BLANK	Cobalt	7440-48-4	< 4	n/a	ug/L					U	07/28/08
BLANK	Chromium	7440-47-3	< 13	n/a	ug/L					U	07/28/08
BLANK	Copper	7440-50-8	< 6	n/a	ug/L					U	07/28/08
BLANK	Iron	7439-89-6	< 25	n/a	ug/L					U	07/28/08
BLANK	Potassium	7440-09-7	< 170	n/a	ug/L					U	07/28/08
BLANK	Magnesium	7439-95-4	< 50	n/a	ug/L					U	07/28/08
BLANK	Manganese	7439-96-5	< 4	n/a	ug/L					U	07/28/08
BLANK	Molybdenum	7439-98-7	< 5	n/a	ug/L					U	07/28/08
BLANK	Sodium	7440-23-5	52.5	52.500	ug/L						07/28/08
BLANK	Nickel	7440-02-0	< 4	n/a	ug/L					U	07/28/08
BLANK	Lead	7439-92-1	< 45	n/a	ug/L					U	07/28/08
BLANK	Antimony	7440-36-0	< 56	n/a	ug/L					U	07/28/08
BLANK	Strontium	7440-24-6	< 4	n/a	ug/L					U	07/28/08
BLANK	Vanadium	7440-62-2	< 12	n/a	ug/L					U	07/28/08
BLANK	Zinc	7440-66-6	< 9	n/a	ug/L					U	07/28/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081339
 Matrix: WATER
 Test: ICP Metals Analysis, Grd H2O 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	Silver	7440-22-4	973	97.300	% Recov	80.000	120.000				07/28/08
LCS	Aluminum	7429-90-5	966.8	96.680	% Recov	80.000	120.000				07/28/08
LCS	Arsenic	7440-38-2	998	99.800	% Recov	80.000	120.000				07/28/08
LCS	Barium	7440-39-3	470	94.000	% Recov	80.000	120.000				07/28/08
LCS	Calcium	7440-70-2	1036	103.600	% Recov	80.000	120.000				07/28/08
LCS	Cadmium	7440-43-9	994.2	99.420	% Recov	80.000	120.000				07/28/08
LCS	Cobalt	7440-48-4	994.3	99.430	% Recov	80.000	120.000				07/28/08
LCS	Chromium	7440-47-3	965.1	96.510	% Recov	80.000	120.000				07/28/08
LCS	Copper	7440-50-8	995	99.500	% Recov	80.000	120.000				07/28/08
LCS	Iron	7439-89-6	976.5	97.650	% Recov	80.000	120.000				07/28/08
LCS	Potassium	7440-09-7	10210	102.100	% Recov	80.000	120.000				07/28/08
LCS	Magnesium	7439-95-4	949.7	94.970	% Recov	80.000	120.000				07/28/08
LCS	Manganese	7439-96-5	970	97.000	% Recov	80.000	120.000				07/28/08
LCS	Molybdenum	7439-98-7	976.4	97.640	% Recov	80.000	120.000				07/28/08
LCS	Sodium	7440-23-5	1057	105.700	% Recov	80.000	120.000				07/28/08
LCS	Nickel	7440-02-0	986.4	98.640	% Recov	80.000	120.000				07/28/08
LCS	Lead	7439-92-1	1060	106.000	% Recov	80.000	120.000				07/28/08
LCS	Antimony	7440-36-0	1020	102.000	% Recov	80.000	120.000				07/28/08
LCS	Strontium	7440-24-6	488.9	97.780	% Recov	80.000	120.000				07/28/08
LCS	Vanadium	7440-62-2	951	95.100	% Recov	80.000	120.000				07/28/08
LCS	Zinc	7440-66-6	969.3	96.930	% Recov	80.000	120.000				07/28/08

WSCF ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F06-027

Group #: WSCF20081339
Department: Inorganic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-AES: High silver and sodium preparation blank results: "C" flag if applicable. No zirconium present in the LCS standard. Magnesium, calcium, and sodium sample results exceed spiking level by a factor of 4 so spike recoveries are not valid. Check and high standards are used to ensure calcium and sodium 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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M4W41-SLF-08-772

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 8 pages
Including cover page

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

File

ACKNOWLEDGMENT OF SAMPLES RECEIVED

*07/16/08
taf*

Groundwater Remediation Program

Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 122561/ES20
Group#: 20081339
Project#: F06-027
Proj Mgr: Steve Trent G6-35
Phone: 373-5869

The following samples were received from you on 07/02/08. 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
W08GR02071	B1W718	TRENT @GPP6010 @IC-30	Water	06/30/08
W08GR02072	B1W719	TRENT @GPP6010 @IC-30	Water	07/01/08
W08GR02073	B1W720	TRENT @GPP6010 @IC-30	Water	07/02/08
W08GR02074	B1W627	TRENT @GPP6010 @IC-30	Water	06/30/08
W08GR02075	B1W628	TRENT @GPP6010 @IC-30	Water	07/01/08
W08GR02076	B1W629	TRENT @GPP6010 @IC-30	Water	07/02/08

Test Acronym Description

Test Acronym	Description
@GPP6010 @IC-30	ICP Metals Analysis, Grd H2O P Anions by Ion Chromatography

✓ 116108

COLLECTOR K HUGHES	COMPANY CONTACT FABRE, RJ	TELEPHONE NO. 373-2774	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 7G	DATA TURNAROUND 15 Days / 30 Days
SAMPLING LOCATION 100-NR-2 Inj#3 - Skid #2/Sample 2	PROJECT DESIGNATION 100-N Apatite Barrier Performance Monitoring		SAF NO. F06-027	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. ERC-01-014	FIELD LOGBOOK NO. HNF-N-585-11	ACTUAL SAMPLE DEPTH N/A	COA 122561E520	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.			

20081339

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION HNO3 to pH <2 Cool-4C	TYPE OF CONTAINER P P	NO. OF CONTAINER(S) 1 1	VOLUME 250mL 120mL
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME						
B1W718 WASGAD2071	WATER	6-30-08	2300	✓	✓				

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM K HUGHES	DATE/TIME 6-30-08 2310	RECEIVED BY/STORED IN NR2510 Ref # 1/6-30-08/2310
RELINQUISHED BY/REMOVED FROM NR-2 SITE REF #1	DATE/TIME 7-2-08 1330	RECEIVED BY/STORED IN R.R. Fort
RELINQUISHED BY/REMOVED FROM R.R. Fort	DATE/TIME 7-2-08	RECEIVED BY/STORED IN A. PILLAZZI
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN

(1) ICP Metals - 6010B (TAL); ICP Metals - 6010B (Add-On) (Arsenic, Lead, Molybdenum, Strontium)
 (2) IC Anions - 300.0 (Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorus in phosphate, Sulfate)

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

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COLLECTOR Hushes/Delrow	COMPANY CONTACT FABRE, RJ	TELEPHONE NO. 373-2774	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 7G	DATA TURNAROUND 15 Days / 30 Days
SAMPLING LOCATION 100-NR-2 Inj #3 - Skid #2/Sample 3	PROJECT DESIGNATION 100-N Apatite Barrier Performance Monitoring	SAF NO. F06-027	AIR QUALITY <input type="checkbox"/>		
ICE CHEST NO. ERC-01-014	FIELD LOGBOOK NO. HNF-N-585-11	ACTUAL SAMPLE DEPTH N/A	COA 122561ES20	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.			

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	HNO3 to pH <2	Cool~4C	
		TYPE OF CONTAINER	P	P	
		NO. OF CONTAINER(S)	1	1	
		VOLUME	250mL	120mL	
SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS		

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME						
B1W719	2072 WATER	7-1-08	1100	✓	✓				

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM C. J. ...	DATE/TIME 7/1/08 1120	RECEIVED BY/STORED IN NR-2 REF #1
RELINQUISHED BY/REMOVED FROM NR-2 REF #1	DATE/TIME 7-2-08 1330	RECEIVED BY/STORED IN R. R. Fox
RELINQUISHED BY/REMOVED FROM R. R. Fox	DATE/TIME 7-2-08 1405	RECEIVED BY/STORED IN JA ...
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN

(1)ICP Metals - 6010B (TAL); ICP Metals - 6010B (Add-On) (Arsenic, Lead, Molybdenum, Strontium)
 (2)IC Anions - 300.0 (Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorus in phosphate, Sulfate)

ICED

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

COLLECTOR T. Tur	COMPANY CONTACT FABRE, RJ	TELEPHONE NO. 373-2774	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 7G	DATA TURNAROUND 15 Days / 30 Days
SAMPLING LOCATION 100-NR-2 Inj#3 - Skid #2/Sample 4	PROJECT DESIGNATION 100-N Apatite Barrier Performance Monitoring		SAF NO. F06-027	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. ERC-01-014	FIELD LOGBOOK NO. HNF-N-585-11	ACTUAL SAMPLE DEPTH N/A	COA 122561ES20	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.			

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION HNO3 to pH <2 Cool-4C									
		TYPE OF CONTAINER									
		NO. OF CONTAINER(S)	1	1							
		VOLUME	250mL	120mL							
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS							

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME						
B1V720 2073	WATER	7/2/08	0300						

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM Tony Tur 7/2/08	RECEIVED BY/STORED IN NK-2 Ref #7 7/2/08	(1)ICP Metals - 6010B (TAL); ICP Metals - 6010B (Add-On) {Arsenic, Lead, Molybdenum, Strontium} (2)IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorus in phosphate, Sulfate}
RELINQUISHED BY/REMOVED FROM NR-2 REF #9 7-2-08	RECEIVED BY/STORED IN R.R. Fox 7-2-08	
RELINQUISHED BY/REMOVED FROM R.R. Fox 7-2-08	RECEIVED BY/STORED IN TA FRAZIER 7-2-08	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	

ICED

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

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COLLECTOR HUGHES	COMPANY CONTACT FABRE, RJ	TELEPHONE NO. 373-2774	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 7G	DATA TURNAROUND 15 Days / 30 Days
SAMPLING LOCATION 100-NR-2 Inj#3 - Skid #1/Sample 2	PROJECT DESIGNATION 100-N Apatite Barrier Performance Monitoring		SAF NO. F06-027	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. ERC-01-014	FIELD LOGBOOK NO. HNF-N-585-11	ACTUAL SAMPLE DEPTH N/A	COA 122561ES20	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO.		BILL OF LADING/AIR BILL NO.		

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	HNO3 to pH <2	Cool-4C
		TYPE OF CONTAINER	P	P
		NO. OF CONTAINER(S)	1	1
		VOLUME	250mL	120mL
		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS
SPECIAL HANDLING AND/OR STORAGE				

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME						
BIW627	2079 WATER	8-30-08	2300	✓	✓				

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	(1)ICP Metals - 6010B (TAL); ICP Metals - 6010B (Add-On) {Arsenic, Lead, Molybdenum, Strontium} (2)IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorus in phosphate, Sulfate}	
HUGHES	6-30-08/2310	NR SITE REF #1	6-30-08/2310		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
MR-2 SITE REF #1	2-2-08 1330	RR Fox	2-2-08 1330		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
R.P. Fox	2-2-08	JAPINAZIK	7-2-08 1405		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

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

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COLLECTOR Hughes / DeKoo	COMPANY CONTACT FABRE, RJ	TELEPHONE NO. 373-2774	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 7G	DATA TURNAROUND 15 Days / 30 Days
SAMPLING LOCATION 100-NR-2 Inj#3 - Skid #1/Sample 3	PROJECT DESIGNATION 100-N Apatite Barrier Performance Monitoring	SAF NO. F06-027	AIR QUALITY <input type="checkbox"/>		
ICE CHEST NO. ERL - 01-014	FIELD LOGBOOK NO. HNF-N-585-11	ACTUAL SAMPLE DEPTH N/A	COA 122561ES20	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.			

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	HNO3 to pH <2	Cool-4C							
		TYPE OF CONTAINER	P	P							
		NO. OF CONTAINER(S)	1	1							
		VOLUME	250mL	120mL							
SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS								

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME						
B1W628	2075 WATER	7-1-08	1100	✓	✓				

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	(1) ICP Metals - 6010B (TAL); ICP Metals - 6010B (Add-On) {Arsenic, Lead, Molybdenum, Strontium} (2) IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorus in phosphate, Sulfate}	
C. DeKoo	7/1/08/1120	NR-2 REF #1	7/1/08/1120		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
NR-2 REF #1	7-2-08 1330	R. R. Fabre	7-2-08 1330		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
R. R. Fabre	7-2-08 1405	JA PRAZIAN	7-2-08 1405		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

ICED

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

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COLLECTOR T Tue	COMPANY CONTACT FABRE, RJ	TELEPHONE NO. 373-2774	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 7G	DATA TURNAROUND 15 Days / 30 Days
SAMPLING LOCATION 100-NR-2 Inj#3 - Skid #1/Sample 4	PROJECT DESIGNATION 100-N Apatite Barrier Performance Monitoring		SAF NO. F06-027	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. ERC-01-014	FIELD LOGBOOK NO. HNF-N-585-11	ACTUAL SAMPLE DEPTH N/A	COA 122561ES20	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO.		BILL OF LADING/AIR BILL NO.		

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	HNO3 to pH <2	Cool-4C
		TYPE OF CONTAINER	P	P
		NO. OF CONTAINER(S)	1	1
		VOLUME	250mL	120mL
SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B1W629 2076	WATER	7/2/08	0300	✓	✓

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	SPECIAL INSTRUCTION:5
RELINQUISHED BY/REMOVED FROM Tony Tue TRC	DATE/TIME 7/2/08 0300	RECEIVED BY/STORED IN NR-2 REF #1
RELINQUISHED BY/REMOVED FROM NR-2 REF #1	DATE/TIME 7-2-08 1330	RECEIVED BY/STORED IN R.R. Fox
RELINQUISHED BY/REMOVED FROM R. P. Frazier	DATE/TIME 7-2-08 1405	RECEIVED BY/STORED IN JA FRAZIER
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN

(1) ICP Metals - 6010B (TAL); ICP Metals - 6010B (Add-On) {Arsenic, Lead, Molybdenum, Strontium}
 (2) IC Anions - 300.5 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorus in phosphate, Sulfate}

ICED

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

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