WSCF Laboratory

PO Box 650 S3-30
Richland, WA 99352

RECEIVED MARCH 08, 2011

0099106

March 7, 2011

Michael Neely
CH2M-HILL PRC
PO Box 1600
Richland, WA 99352

Dear Michael Neely,

FINAL RESULT FOR SAMPLE DELIVERY GROUP WSCF111404

Reference: (1) SOW, Mod 2, #36587, Release 3
(2) HNF-SD-CD-QAPP-017, current version, Waste Sampling & Characterization Facility Quality Assurance Plan

This letter contains the following information for sample delivery group WSCF111404

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

Very truly yours,

RECEIVED
SEP 21 2011
EDMC

Electronically signed by Joseph Hale
For Lab Manager
WSCF Analytical Lab
(509) 373-7495

Attachments 4

CC: w/Attachments

File/LB

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF Number Cross Reference

Group # WSCF111404
Data Deliverable Date 03/07/11

SAF #	Sample ID	Sample #	Matrix	Sampled	Received
F10-197	B2B933	111404001	WATER	02/02/11	02/02/11

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 31 pages
Including cover page

WSCF ANALYTICAL RESULTS REPORT

For

CH2M Hill Plateau Remediation

PO Box 1600
Richland, WA 99352

Attention: Michael Neely

Contract #	MOA-FH-CHPRC-2008
Group #	WSCF111404
Report Date	March 7, 2011

Analytical: Electronically signed by Joseph Hale

Client Services: Electronically signed by Richard Barker

Solid samples results that have a 'Percent Solid' test are reported on a "dry weight basis", except results of TCLP, Percent Solid, and Total Activity. If no `Percent Solid' test is reported then the results are reported on an "as received" basis.

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.

Batch QC List

Attention Michael Neely
Department Inorganic

Group # WSCF111404

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
176060	176060	2	BLANK	48393	BLANK		Anions by Ion Chromatography (Water)
176060	176060	3	LCS	48394	LCS		Anions by Ion Chromatography (Water)
176060	176060	4	DUP	48395	B2B933(111404001DUP)	111404001	Anions by Ion Chromatography (Water)
176060	176060	5	MS	48396	B2B933(111404001MS)	111404001	Anions by Ion Chromatography (Water)
176060	176060	6	MSD	48397	B2B933(111404001MSD)	111404001	Anions by Ion Chromatography (Water)
176060	176060	8	SAMPLE	111404001	B2B933		Anions by Ion Chromatography (Water)
176464	176465	4	BLANK	48782	BLANK		ICP-2008 MS All possible metal
176464	176465	5	LCS	48783	LCS		ICP-2008 MS All possible metal
176464	176465	6	MS	48784	B26RT4(111277001MS)	111277001	ICP-2008 MS All possible metal
176464	176465	7	MSD	48785	B26RT4(111277001MSD)	111277001	ICP-2008 MS All possible metal
176464	176465	28	SAMPLE	111404001	B2B933		ICP-2008 MS All possible metal
178051	178391	1	BLANK	49934	BLANK		ICP-6010 - All possible metals
178051	178391	2	LCS	49935	LCS		ICP-6010 - All possible metals
178051	178391	4	MS	49936	B2B040(111366034MS)	111366034	ICP-6010 - All possible metals
178051	178391	5	MSD	49937	B2B040(111366034MSD)	111366034	ICP-6010 - All possible metals
178051	178391	14	SAMPLE	111404001	B2B933		ICP-6010 - All possible metals

Batch QC List

Attention Michael Neely
Department Organic, Volatiles

Group # WSCF111404

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
175987	175988	1	BLANK	48319	BLANK		SW-846 8260B Volatiles, separate prep
175987	175988	2	LCS	48320	LCS		SW-846 8260B Volatiles, separate prep
175987	175988	3	MS	48321	B2B933(111404001MS)	111404001	SW-846 8260B Volatiles, separate prep
175987	175988	4	MSD	48322	B2B933(111404001MSD)	111404001	SW-846 8260B Volatiles, separate prep
175987	175988	5	SAMPLE	111404001	B2B933		SW-846 8260B Volatiles, separate prep

Batch QC List

Attention Michael Neely
Department Wet Chemistry

Group # WSCF111404

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
176851	176851	1	LCS	48984	LCS		Total Alkalinity as mg/L CaCO3 (Water)
176851	176851	2	DUP	48985	B2B933(111404001DUP)	111404001	Total Alkalinity as mg/L CaCO3 (Water)
176851	176851	3	SAMPLE	111404001	B2B933		Total Alkalinity as mg/L CaCO3 (Water)

Method Reference

Attention Michael Neely
Department Inorganic

Group # WSCF111404

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, industry methods or HEIS 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 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	Elemental Analysis by ICP Atomic Emission Spectroscopy (ICP AES)		
	EPA SW-846	6010C	Inductively Coupled Plasma-Atomic Emmision Spectrometry
	HEIS	6010_METALS_ICP	Inductively Coupled Plasma-Atomic Emmision Spectrometry
LA-505-412	Determination of Trace Elements in Waters & Wastes by ICP-Mass Spectrometry		
	EPA-600/R-94-111	200.8	Determination of Trace Elements in Waters and Waste by Inductively Coupled Plasma
	HEIS	200.8_METALS_ICPMS	Determination of Trace Elements in Waters and Waste by Inductively Coupled Plasma, Mass Spec.
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 reference regulatory or industry methods is available online at http://www7.rl.gov/rapidweb/AS-DOL/index.cfm

Method Reference

Attention Michael Neely
Department Organic, Volatiles

Group # WSCF111404

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, industry methods or HEIS 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 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	Volatile Sample Analysis by SW-846 Method 8260B		
	EPA SW-846	8000B	Determinative Chromographic 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)

Note: A complete list of WSCF analytical procedures and reference regulatory or industry methods is available online at http://www7.rl.gov/rapidweb/AS-DOL/index.cfm

Method Reference

Attention Michael Neely
Department Wet Chemistry

Group # WSCF111404

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, industry methods or HEIS 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 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-531-411	Alkalinity		
	EPA-600/4-79-020	310.1	Alkalinity
	HEIS	2320_ALKALINITY	Alkalinity

Note: A complete list of WSCF analytical procedures and reference regulatory or industry methods is available online at http://www7.rl.gov/rapidweb/AS-DOL/index.cfm

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF111404

Sample # 111404001
SAF# F10-197
Sample ID B2B933

Matrix WATER
Sampled 02/02/11
Received 02/02/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**02/03/11**
Anions by IC										
Fluoride	16984-48-8	LA-533-410	BD	0.282		ug/mL	2	0.088	0.40	02/03/11
Chloride	16887-00-6	LA-533-410	D	4.61		ug/mL	2	0.084	0.80	02/03/11
Nitrite-N	NO2-N	LA-533-410	UD	<0.036		ug/mL	2	0.036	0.20	02/03/11
Bromide	24959-67-9	LA-533-410	UD	<0.11		ug/mL	2	0.11	1.0	02/03/11
Nitrate-N	NO3-N	LA-533-410	UD	<0.019		ug/mL	2	0.019	0.20	02/03/11
Phosphate-P	PO4-P	LA-533-410	UD	<0.14		ug/mL	2	0.14	0.80	02/03/11
Sulfate	14808-79-8	LA-533-410	BD	0.248		ug/mL	2	0.17	2.0	02/03/11
ICP Prep										**02/28/11**
ICP-AES										
Iron	7439-89-6	LA-505-411	B	52.0		ug/L	1	38	190	03/07/11
Magnesium	7439-95-4	LA-505-411		6610		ug/L	1	14	70	03/07/11
Potassium	7440-09-7	LA-505-411		5260		ug/L	1	73	360	03/07/11
Sodium	7440-23-5	LA-505-411		21400		ug/L	1	11	55	03/07/11
Calcium	7440-70-2	LA-505-411		26000		ug/L	1	28	140	03/07/11
Lithium	7439-93-2	LA-505-411	B	4.00		ug/L	1	4.0	20	03/07/11
Boron	7440-42-8	LA-505-411	U	<41		ug/L	1	41	200	03/07/11
Bismuth	7440-69-9	LA-505-411	U	<37		ug/L	1	37	180	03/07/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF111404

Sample # 111404001
SAF# F10-197
Sample ID B2B933

Matrix WATER
Sampled 02/02/11
Received 02/02/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Silicon	7440-21-3	LA-505-411		17800		ug/L	1	25	120	03/07/11
Phosphorus	7723-14-0	LA-505-411	U	<72		ug/L	1	72	360	03/07/11
ICPMS Prep										**02/10/11**
ICP-MS										
Aluminum	7429-90-5	LA-505-412	BD	28.0		ug/L	2	10	200	02/11/11
Manganese	7439-96-5	LA-505-412	D	142		ug/L	2	0.20	2.0	02/11/11
Nickel	7440-02-0	LA-505-412	BD	0.870		ug/L	2	0.40	4.0	02/11/11
Silver	7440-22-4	LA-505-412	UD	<0.20		ug/L	2	0.20	2.0	02/11/11
Antimony	7440-36-0	LA-505-412	UD	<0.60		ug/L	2	0.60	6.0	02/11/11
Barium	7440-39-3	LA-505-412	D	31.8		ug/L	2	0.40	4.0	02/11/11
Beryllium	7440-41-7	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	02/11/11
Cadmium	7440-43-9	LA-505-412	UD	<0.20		ug/L	2	0.20	2.0	02/11/11
Chromium	7440-47-3	LA-505-412	UD	<1.0		ug/L	2	1.0	10	02/11/11
Cobalt	7440-48-4	LA-505-412	D	1.41		ug/L	2	0.10	0.50	02/11/11
Copper	7440-50-8	LA-505-412	UD	<0.20		ug/L	2	0.20	2.0	02/11/11
Vanadium	7440-62-2	LA-505-412	BD	1.11		ug/L	2	0.40	4.0	02/11/11
Zinc	7440-66-6	LA-505-412	BD	2.74		ug/L	2	1.6	10	02/11/11
Lead	7439-92-1	LA-505-412	UD	<0.20		ug/L	2	0.20	2.0	02/11/11
Mercury	7439-97-6	LA-505-412	UD	<0.10		ug/L	2	0.10	0.40	02/11/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF111404

Sample # 111404001
SAF# F10-197
Sample ID B2B933

Matrix WATER
Sampled 02/02/11
Received 02/02/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Molybdenum	7439-98-7	LA-505-412	D	4.01		ug/L	2	0.10	1.0	02/11/11
Strontium	7440-24-6	LA-505-412	D	124		ug/L	2	0.20	2.0	02/11/11
Thallium	7440-28-0	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	02/11/11
Tin	7440-31-5	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	02/11/11
Uranium	7440-61-1	LA-505-412	BD	0.190		ug/L	2	0.10	0.40	02/11/11
Arsenic	7440-38-2	LA-505-412	UD	<0.80		ug/L	2	0.80	8.0	02/11/11
Selenium	7782-49-2	LA-505-412	UD	<0.60		ug/L	2	0.60	6.0	02/11/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
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U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Organic, Volatiles

Group # WSCF111404

Sample # 111404001
SAF# F10-197
Sample ID B2B933

Matrix WATER
Sampled 02/02/11
Received 02/02/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
8260 Prep										**02/03/11**
SW-846 8260B										
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Trichloroethene	79-01-6	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Benzene	71-43-2	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Toluene	108-88-3	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Chlorobenzene	108-90-7	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
1,1-Dichloroethane	75-34-3	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Ethylbenzene	100-41-4	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Styrene	100-42-5	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
cis-1,3-Dichloropropene	10061-01-5	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
1,2-Dichloroethane	107-06-2	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Methyl isobutyl ketone	108-10-1	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Dibromochloromethane	124-48-1	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Tetrachloroethene	127-18-4	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Total Xylenes	1330-20-7	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Total 1,2-Dichloroethene	540-59-0	LA-523-455	U	<1		ug/L	1	1	5	02/14/11

MDL = Minimum Detection
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TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < PQL (or EQL) >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
N - MS and/or MSD recovery outside control limits.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Organic, Volatiles

Group # WSCF111404

Sample # 111404001
SAF# F10-197
Sample ID B2B933

Matrix WATER
Sampled 02/02/11
Received 02/02/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Carbon tetrachloride	56-23-5	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
2-Hexanone	591-78-6	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Acetone	67-64-1	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Chloroform	67-66-3	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Bromomethane	74-83-9	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Chloromethane	74-87-3	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Chloroethane	75-00-3	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Vinyl chloride	75-01-4	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Methylene chloride	75-09-2	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Carbon disulfide	75-15-0	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Bromoform	75-25-2	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Bromodichloromethane	75-27-4	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
1,2-Dichloropropane	78-87-5	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
Methyl ethyl ketone	78-93-3	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	<1		ug/L	1	1	5	02/14/11
trans-1,2-Dichloroethene	156-60-5	LA-523-455	U	<1		ug/L	1	1	5	02/14/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < PQL (or EQL) >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
N - MS and/or MSD recovery outside control limits.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Organic, Volatiles

Group # WSCF111404

Sample # 111404001
SAF# F10-197
Sample ID B2B933

Matrix WATER
Sampled 02/02/11
Received 02/02/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
cis-1,2-Dichloroethene	156-59-2	LA-523-455	U	<1		ug/L	1	1	5	02/14/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
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J - Analyte < PQL (or EQL) >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
N - MS and/or MSD recovery outside control limits.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Wet Chemistry

Group # WSCF111404

Sample # 111404001
SAF# F10-197
Sample ID B2B933

Matrix WATER
Sampled 02/02/11
Received 02/02/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Alkalinity										**02/10/11**
Alkalinity										
Total Alkalinity as CaCO3	ALKALINITY	LA-531-411		130		mg/L	1	1	10	02/10/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

Quality Control Report

Attention Michael Neely
Department Organic, Volatiles

Group # WSCF111404

QC Batch 175987
Associated Samples 111404001

Test SW-846 8260B Volatiles, separate prep

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #48319**						
1,1-Dichloroethene	75-35-4		<1	ug/L				U	02/14/11
Trichloroethene	79-01-6		<1	ug/L				U	02/14/11
Benzene	71-43-2		<1	ug/L				U	02/14/11
Toluene	108-88-3		<1	ug/L				U	02/14/11
Chlorobenzene	108-90-7		<1	ug/L				U	02/14/11
1,1-Dichloroethane	75-34-3		<1	ug/L				U	02/14/11
Ethylbenzene	100-41-4		<1	ug/L				U	02/14/11
Styrene	100-42-5		<1	ug/L				U	02/14/11
cis-1,3-Dichloropropene	10061-01-5		<1	ug/L				U	02/14/11
trans-1,3-Dichloropropene	10061-02-6		<1	ug/L				U	02/14/11
1,2-Dichloroethane	107-06-2		<1	ug/L				U	02/14/11
Methyl isobutyl ketone	108-10-1		<1	ug/L				U	02/14/11
Dibromochloromethane	124-48-1		<1	ug/L				U	02/14/11
Tetrachloroethene	127-18-4		<1	ug/L				U	02/14/11
Total Xylenes	1330-20-7		<1	ug/L				U	02/14/11
Total 1,2-Dichloroethene	540-59-0		<1	ug/L				U	02/14/11
Carbon tetrachloride	56-23-5		<1	ug/L				U	02/14/11

Quality Control Report

Attention Michael Neely
Department Organic, Volatiles

Group # WSCF111404

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
2-Hexanone	591-78-6		<1	ug/L					U	02/14/11
Acetone	67-64-1		<1	ug/L					U	02/14/11
Chloroform	67-66-3		<1	ug/L					U	02/14/11
1,1,1-Trichloroethane	71-55-6		<1	ug/L					U	02/14/11
Bromomethane	74-83-9		<1	ug/L					U	02/14/11
Chloromethane	74-87-3		<1	ug/L					U	02/14/11
Chloroethane	75-00-3		<1	ug/L					U	02/14/11
Vinyl chloride	75-01-4		<1	ug/L					U	02/14/11
Methylene chloride	75-09-2		<1	ug/L					U	02/14/11
Carbon disulfide	75-15-0		<1	ug/L					U	02/14/11
Bromoform	75-25-2		<1	ug/L					U	02/14/11
Bromodichloromethane	75-27-4		<1	ug/L					U	02/14/11
1,2-Dichloropropane	78-87-5		<1	ug/L					U	02/14/11
Methyl ethyl ketone	78-93-3		<1	ug/L					U	02/14/11
1,1,2-Trichloroethane	79-00-5		<1	ug/L					U	02/14/11
1,1,2,2-Tetrachloroethane	79-34-5		<1	ug/L					U	02/14/11
trans-1,2-Dichloroethene	156-60-5		<1	ug/L					U	02/14/11
cis-1,2-Dichloroethene	156-59-2		<1	ug/L					U	02/14/11
LCS			**QC Sample #48320**							
1,1-Dichloroethene	75-35-4		20	ug/L	78.2	75 - 125				02/14/11
Trichloroethene	79-01-6		21	ug/L	82.2	75 - 125				02/14/11
Benzene	71-43-2		20	ug/L	81.3	75 - 125				02/14/11

Quality Control Report

Attention Michael Neely
Department Organic, Volatiles

Group # WSCF111404

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Toluene	108-88-3		24	ug/L	95.6	75 - 125				02/14/11
Chlorobenzene	108-90-7		24	ug/L	94.2	75 - 125				02/14/11
MS			**QC Sample #48321**							
			Original 111404001							
1,1-Dichloroethene	75-35-4	<1	19	ug/L	75.7	75 - 125				02/14/11
Trichloroethene	79-01-6	<1	22	ug/L	86.4	75 - 125				02/14/11
Benzene	71-43-2	<1	22	ug/L	88.2	75 - 125				02/14/11
Toluene	108-88-3	<1	26	ug/L	102	75 - 125				02/14/11
Chlorobenzene	108-90-7	<1	25	ug/L	100.6	75 - 125				02/14/11
MSD			**QC Sample #48322**							
			Original 111404001					**Paired**	**48321**	
1,1-Dichloroethene	75-35-4	<1	19	ug/L	77.9	75 - 125	2.90	20		02/14/11
Trichloroethene	79-01-6	<1	21	ug/L	83.9	75 - 125	2.90	20		02/14/11
Benzene	71-43-2	<1	21	ug/L	85.8	75 - 125	2.80	20		02/14/11
Toluene	108-88-3	<1	25	ug/L	99.2	75 - 125	2.80	20		02/14/11
Chlorobenzene	108-90-7	<1	24	ug/L	98	75 - 125	2.60	20		02/14/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111404

QC Batch 176060
Associated Samples 111404001

Test Anions by Ion Chromatography (Water)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #48393**							
Fluoride	16984-48-8		<0.044	ug/mL					U	02/03/11
Chloride	16887-00-6		<0.042	ug/mL					U	02/03/11
Nitrite-N	NO2-N		<0.018	ug/mL					U	02/03/11
Bromide	24959-67-9		<0.054	ug/mL					U	02/03/11
Nitrate-N	NO3-N		<9.7E-3	ug/mL					U	02/03/11
Phosphate-P	PO4-P		<0.072	ug/mL					U	02/03/11
Sulfate	14808-79-8		<0.083	ug/mL					U	02/03/11
LCS			**QC Sample #48394**							
Fluoride	16984-48-8		0.946	ug/mL	95.5	90 - 110				02/03/11
Chloride	16887-00-6		1.95	ug/mL	98.7	90 - 110				02/03/11
Nitrite-N	NO2-N		0.981	ug/mL	100.3	90 - 110				02/03/11
Bromide	24959-67-9		3.87	ug/mL	98.8	90 - 110				02/03/11
Nitrate-N	NO3-N		0.880	ug/mL	99.4	90 - 110				02/03/11
Phosphate-P	PO4-P		1.93	ug/mL	100.8	90 - 110				02/03/11
Sulfate	14808-79-8		3.96	ug/mL	100.9	90 - 110				02/03/11
DUP			**QC Sample #48395**							
			Original 111404001							
Fluoride	16984-48-8	0.282	0.258	ug/mL			8.90	20	BD	02/03/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111404

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Chloride	16887-00-6	4.61	4.58	ug/mL			0.70	20	D	02/03/11
Nitrite-N	NO2-N	<0.036	<0.036	ug/mL			0.00	20	UD	02/03/11
Bromide	24959-67-9	<0.11	<0.11	ug/mL			0.00	20	UD	02/03/11
Nitrate-N	NO3-N	<0.019	<0.019	ug/mL			0.00	20	UD	02/03/11
Phosphate-P	PO4-P	<0.14	<0.14	ug/mL			0.00	20	UD	02/03/11
Sulfate	14808-79-8	0.248	0.203	ug/mL			20.00	20	BD	02/03/11
MS			**QC Sample #48396**							
			Original 111404001							
Fluoride	16984-48-8	0.282	0.911	ug/mL	91.1	80 - 120			D	02/03/11
Chloride	16887-00-6	4.61	1.80	ug/mL	90.1	80 - 120			D	02/03/11
Nitrite-N	NO2-N	<0.036	0.972	ug/mL	98.4	80 - 120			D	02/03/11
Bromide	24959-67-9	<0.11	3.84	ug/mL	96.9	80 - 120			D	02/03/11
Nitrate-N	NO3-N	<0.019	0.883	ug/mL	98.8	80 - 120			D	02/03/11
Phosphate-P	PO4-P	<0.14	1.93	ug/mL	99.7	80 - 120			D	02/03/11
Sulfate	14808-79-8	0.248	3.94	ug/mL	99.6	80 - 120			D	02/03/11
MSD			**QC Sample #48397**							
			Original 111404001					**Paired**	**48396**	
Fluoride	16984-48-8	0.282	0.949	ug/mL	94.9	80 - 120	4.10	20	D	02/03/11
Chloride	16887-00-6	4.61	1.82	ug/mL	90.9	80 - 120	0.90	20	D	02/03/11
Nitrite-N	NO2-N	<0.036	0.977	ug/mL	98.8	80 - 120	0.40	20	D	02/03/11
Bromide	24959-67-9	<0.11	3.86	ug/mL	97.5	80 - 120	0.60	20	D	02/03/11
Nitrate-N	NO3-N	<0.019	0.894	ug/mL	100	80 - 120	1.20	20	D	02/03/11
Phosphate-P	PO4-P	<0.14	2.01	ug/mL	104	80 - 120	4.20	20	D	02/03/11
Sulfate	14808-79-8	0.248	3.90	ug/mL	98.5	80 - 120	1.10	20	D	02/03/11

Quality Control Report

Attention Michael Neely
Department Wet Chemistry

Group # WSCF111404

QC Batch 176851
Associated Samples 111404001

Test Total Alkalinity as mg/L CaCO3 (Water)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS			**QC Sample #48984**							
Total Alkalinity as CaCO3	ALKALINITY		100	mg/L	100.4	80 - 120				02/10/11
DUP			**QC Sample #48985**							
			Original 111404001							
Total Alkalinity as CaCO3	ALKALINITY	130	130	mg/L			0.00	20		02/10/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111404

QC Batch 178051
Associated Samples 111404001

Test ICP-6010 - All possible metals

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #49934**							
Iron	7439-89-6		<38	ug/L					U	03/07/11
Magnesium	7439-95-4		<14	ug/L					U	03/07/11
Potassium	7440-09-7		<73	ug/L					U	03/07/11
Sodium	7440-23-5		15.0	ug/L					B	03/07/11
Calcium	7440-70-2		<28	ug/L					U	03/07/11
Lithium	7439-93-2		<4.0	ug/L					U	03/07/11
Boron	7440-42-8		<41	ug/L					U	03/07/11
Bismuth	7440-69-9		<37	ug/L					U	03/07/11
Silicon	7440-21-3		<25	ug/L					U	03/07/11
Phosphorus	7723-14-0		<72	ug/L					U	03/07/11
LCS			**QC Sample #49935**							
Iron	7439-89-6		1010	ug/L	101	80 - 120				03/07/11
Magnesium	7439-95-4		1020	ug/L	102	80 - 120				03/07/11
Potassium	7440-09-7		1090	ug/L	109	80 - 120				03/07/11
Sodium	7440-23-5		1130	ug/L	113	80 - 120				03/07/11
Calcium	7440-70-2		1010	ug/L	101	80 - 120				03/07/11
Lithium	7439-93-2		550	ug/L	110	80 - 120				03/07/11
Boron	7440-42-8		1030	ug/L	103	80 - 120				03/07/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111404

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
Bismuth	7440-69-9		974	ug/L	97.4	80 - 120					03/07/11
Silicon	7440-21-3		1040	ug/L	104	80 - 120					03/07/11
Phosphorus	7723-14-0		1010	ug/L	101	80 - 120					03/07/11
MS			**QC Sample #49936**								
			Original 111366034								
Iron	7439-89-6		994	ug/L	99.4	75 - 125					03/07/11
Magnesium	7439-95-4		600	ug/L	60	75 - 125				X	03/07/11
Potassium	7440-09-7		840	ug/L	84	75 - 125				X	03/07/11
Sodium	7440-23-5		400	ug/L	40	75 - 125				X	03/07/11
Calcium	7440-70-2		-300	ug/L	-30	75 - 125				X	03/07/11
Lithium	7439-93-2		534	ug/L	106.8	75 - 125					03/07/11
Boron	7440-42-8		1050	ug/L	105	75 - 125					03/07/11
Bismuth	7440-69-9		997	ug/L	99.7	75 - 125					03/07/11
Silicon	7440-21-3		600	ug/L	60	75 - 125				X	03/07/11
Phosphorus	7723-14-0		1070	ug/L	107	75 - 125					03/07/11
MSD			**QC Sample #49937**								
			Original 111366034						**Paired**	**49936**	
Iron	7439-89-6		991	ug/L	99.1	75 - 125	0.30	20			03/07/11
Magnesium	7439-95-4		700	ug/L	70	75 - 125	15.40	20		X	03/07/11
Potassium	7440-09-7		940	ug/L	94	75 - 125	11.20	20		X	03/07/11
Sodium	7440-23-5		700	ug/L	70	75 - 125	54.50	20	*	X	03/07/11
Calcium	7440-70-2		-100	ug/L	-10	75 - 125	-100.00	20		X	03/07/11
Lithium	7439-93-2		538	ug/L	107.6	75 - 125	0.70	20			03/07/11
Boron	7440-42-8		1030	ug/L	103	75 - 125	1.90	20			03/07/11
Bismuth	7440-69-9		980	ug/L	98	75 - 125	1.70	20			03/07/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111404

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Silicon	7440-21-3		600	ug/L	60	75 - 125	0.00	20	X	03/07/11
Phosphorus	7723-14-0		1090	ug/L	109	75 - 125	1.90	20		03/07/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111404

QC Batch 176464
Associated Samples 111404001

Test ICP-2008 MS All possible metal

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #48782**						
Aluminum	7429-90-5		<5.0	ug/L				U	02/11/11
Manganese	7439-96-5		<0.10	ug/L				U	02/11/11
Nickel	7440-02-0		<0.20	ug/L				U	02/11/11
Silver	7440-22-4		<0.10	ug/L				U	02/11/11
Antimony	7440-36-0		<0.30	ug/L				U	02/11/11
Barium	7440-39-3		<0.20	ug/L				U	02/11/11
Beryllium	7440-41-7		<0.10	ug/L				U	02/11/11
Cadmium	7440-43-9		<0.10	ug/L				U	02/11/11
Chromium	7440-47-3		<0.50	ug/L				U	02/11/11
Cobalt	7440-48-4		<0.050	ug/L				U	02/11/11
Copper	7440-50-8		<0.10	ug/L				U	02/11/11
Vanadium	7440-62-2		<0.20	ug/L				U	02/11/11
Zinc	7440-66-6		<0.80	ug/L				U	02/11/11
Lead	7439-92-1		<0.10	ug/L				U	02/11/11
Mercury	7439-97-6		<0.050	ug/L				U	02/11/11
Molybdenum	7439-98-7		<0.050	ug/L				U	02/11/11
Strontium	7440-24-6		<0.10	ug/L				U	02/11/11
Thallium	7440-28-0		<0.050	ug/L				U	02/11/11
Tin	7440-31-5		<0.050	ug/L				U	02/11/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111404

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Uranium	7440-61-1		<0.050	ug/L					U	02/11/11
Arsenic	7440-38-2		<0.40	ug/L					U	02/11/11
Selenium	7782-49-2		<0.30	ug/L					U	02/11/11
LCS			**QC Sample #48783**							
Aluminum	7429-90-5		398	ug/L	99.5	85 - 115				02/11/11
Manganese	7439-96-5		38.5	ug/L	96.3	85 - 115				02/11/11
Nickel	7440-02-0		38.0	ug/L	95	85 - 115				02/11/11
Silver	7440-22-4		41.1	ug/L	102.8	85 - 115				02/11/11
Antimony	7440-36-0		38.8	ug/L	97	85 - 115				02/11/11
Barium	7440-39-3		38.4	ug/L	96.1	85 - 115				02/11/11
Beryllium	7440-41-7		39.4	ug/L	98.5	85 - 115				02/11/11
Cadmium	7440-43-9		38.0	ug/L	94.9	85 - 115				02/11/11
Chromium	7440-47-3		39.1	ug/L	97.6	85 - 115				02/11/11
Cobalt	7440-48-4		39.6	ug/L	99	85 - 115				02/11/11
Copper	7440-50-8		38.3	ug/L	95.8	85 - 115				02/11/11
Vanadium	7440-62-2		38.7	ug/L	96.8	85 - 115				02/11/11
Zinc	7440-66-6		36.8	ug/L	92	85 - 115				02/11/11
Lead	7439-92-1		39.8	ug/L	99.5	85 - 115				02/11/11
Mercury	7439-97-6		1.87	ug/L	93.6	85 - 115				02/11/11
Molybdenum	7439-98-7		39.0	ug/L	97.6	85 - 115				02/11/11
Strontium	7440-24-6		39.5	ug/L	98.7	85 - 115				02/11/11
Thallium	7440-28-0		39.3	ug/L	98.2	85 - 115				02/11/11
Tin	7440-31-5		38.6	ug/L	96.6	85 - 115				02/11/11
Uranium	7440-61-1		39.4	ug/L	98.4	85 - 115				02/11/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111404

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Arsenic	7440-38-2		38.5	ug/L	96.2	85 - 115				02/11/11
Selenium	7782-49-2		37.3	ug/L	93.3	85 - 115				02/11/11
MS			**QC Sample #48784**							
			Original 111277001							
Aluminum	7429-90-5		401	ug/L	100.1	70 - 130				02/11/11
Manganese	7439-96-5		38.9	ug/L	97.3	70 - 130				02/11/11
Nickel	7440-02-0		37.9	ug/L	94.8	70 - 130				02/11/11
Silver	7440-22-4		41.1	ug/L	102.7	70 - 130				02/11/11
Antimony	7440-36-0		41.7	ug/L	104.2	70 - 130				02/11/11
Barium	7440-39-3		41.0	ug/L	102.5	70 - 130				02/11/11
Beryllium	7440-41-7		40.3	ug/L	100.7	70 - 130				02/11/11
Cadmium	7440-43-9		40.0	ug/L	100.1	70 - 130				02/11/11
Chromium	7440-47-3		39.7	ug/L	99.2	70 - 130				02/11/11
Cobalt	7440-48-4		39.2	ug/L	97.9	70 - 130				02/11/11
Copper	7440-50-8		37.3	ug/L	93.3	70 - 130				02/11/11
Vanadium	7440-62-2		40.5	ug/L	101.3	70 - 130				02/11/11
Zinc	7440-66-6		36.9	ug/L	92.3	70 - 130				02/11/11
Lead	7439-92-1		42.1	ug/L	105.3	70 - 130				02/11/11
Mercury	7439-97-6		1.96	ug/L	97.8	70 - 130				02/11/11
Molybdenum	7439-98-7		41.9	ug/L	104.8	70 - 130				02/11/11
Strontium	7440-24-6		42.6	ug/L	106.5	70 - 130				02/11/11
Thallium	7440-28-0		42.2	ug/L	105.5	70 - 130				02/11/11
Tin	7440-31-5		41.1	ug/L	102.8	70 - 130				02/11/11
Uranium	7440-61-1		42.1	ug/L	105.3	70 - 130				02/11/11
Arsenic	7440-38-2		40.9	ug/L	102.2	70 - 130				02/11/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111404

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Selenium	7782-49-2		38.6	ug/L	96.4	70 - 130				02/11/11
MSD			**QC Sample #48785**							
			Original 111277001						**Paired 48784**	
Aluminum	7429-90-5		395	ug/L	98.7	70 - 130	1.40	20		02/11/11
Manganese	7439-96-5		38.5	ug/L	96.2	70 - 130	1.10	20		02/11/11
Nickel	7440-02-0		37.4	ug/L	93.6	70 - 130	1.30	20		02/11/11
Silver	7440-22-4		40.9	ug/L	102.3	70 - 130	0.40	20		02/11/11
Antimony	7440-36-0		41.5	ug/L	103.8	70 - 130	0.40	20		02/11/11
Barium	7440-39-3		40.0	ug/L	100.1	70 - 130	2.40	20		02/11/11
Beryllium	7440-41-7		39.8	ug/L	99.5	70 - 130	1.20	20		02/11/11
Cadmium	7440-43-9		38.9	ug/L	97.3	70 - 130	2.80	20		02/11/11
Chromium	7440-47-3		39.0	ug/L	97.6	70 - 130	1.60	20		02/11/11
Cobalt	7440-48-4		38.8	ug/L	97	70 - 130	0.90	20		02/11/11
Copper	7440-50-8		36.9	ug/L	92.3	70 - 130	1.10	20		02/11/11
Vanadium	7440-62-2		39.7	ug/L	99.1	70 - 130	2.20	20		02/11/11
Zinc	7440-66-6		35.9	ug/L	89.8	70 - 130	2.70	20		02/11/11
Lead	7439-92-1		41.5	ug/L	103.8	70 - 130	1.40	20		02/11/11
Mercury	7439-97-6		1.96	ug/L	98.1	70 - 130	0.30	20		02/11/11
Molybdenum	7439-98-7		42.4	ug/L	106.1	70 - 130	1.20	20		02/11/11
Strontium	7440-24-6		43.0	ug/L	107.5	70 - 130	0.90	20		02/11/11
Thallium	7440-28-0		41.0	ug/L	102.5	70 - 130	2.90	20		02/11/11
Tin	7440-31-5		40.7	ug/L	101.7	70 - 130	1.10	20		02/11/11
Uranium	7440-61-1		41.8	ug/L	104.4	70 - 130	0.90	20		02/11/11
Arsenic	7440-38-2		40.5	ug/L	101.2	70 - 130	1.00	20		02/11/11
Selenium	7782-49-2		36.6	ug/L	91.5	70 - 130	5.20	20		02/11/11

Quality Control Report

Attention Michael Neely
Department Organic, Volatiles

Group # WSCF111404

QC Batch 175987
Associated Samples 111404001

Test SW-846 8260B Volatiles, separate prep

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #111404001**							
1,2-Dichloroethane-d4	17060-07-0				104.9	75 - 125				02/14/11
Toluene-d8	2037-26-5				98.8	75 - 125				02/14/11
4-Bromofluorobenzene	460-00-4				102.8	75 - 125				02/14/11
BLANK			**QC Sample #48319**							
1,2-Dichloroethane-d4	17060-07-0				105.2	75 - 125				02/14/11
Toluene-d8	2037-26-5				98.3	75 - 125				02/14/11
4-Bromofluorobenzene	460-00-4				102.3	75 - 125				02/14/11
LCS			**QC Sample #48320**							
1,2-Dichloroethane-d4	17060-07-0				103.6	75 - 125				02/14/11
Toluene-d8	2037-26-5				98.2	75 - 125				02/14/11
4-Bromofluorobenzene	460-00-4				108.4	75 - 125				02/14/11
MS			**QC Sample #48321**							
			Original 111404001							
1,2-Dichloroethane-d4	17060-07-0				104.5	75 - 125				02/14/11
Toluene-d8	2037-26-5				98.7	75 - 125				02/14/11

Quality Control Report

Attention Michael Neely
Department Organic, Volatiles

Group # WSCF111404

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
4-Bromofluorobenzene	460-00-4				104.5	75 - 125				02/14/11
MSD			**QC Sample #48322**							
			Original	**111404001**				**Paired**	**48321**	
1,2-Dichloroethane-d4	17060-07-0				103.4	75 - 125	1.10	20		02/14/11
Toluene-d8	2037-26-5				98.3	75 - 125	0.40	20		02/14/11
4-Bromofluorobenzene	460-00-4				107	75 - 125	2.40	20		02/14/11

Attention: Michael Neely

Group # WSCF111404

Quality Control Comments

Department Inorganic

49936 B2B040(111366034MS)

Analyte Calcium - ICP-6010 - All possible metals
[1] X5: Sample concentration exceed spiking level by a factor of 4. Spike recoveries are not valid.

Analyte Magnesium - ICP-6010 - All possible metals
[1] X5: Sample concentration exceed spiking level by a factor of 4. Spike recoveries are not valid.

Analyte Potassium - ICP-6010 - All possible metals
[1] X5: Sample concentration exceed spiking level by a factor of 4. Spike recoveries are not valid.

Analyte Silicon - ICP-6010 - All possible metals
[1] X5: Sample concentration exceed spiking level by a factor of 4. Spike recoveries are not valid.

Analyte Sodium - ICP-6010 - All possible metals
[1] X5: Sample concentration exceed spiking level by a factor of 4. Spike recoveries are not valid.

49937 B2B040(111366034MSD)

Analyte Calcium - ICP-6010 - All possible metals
[1] X5: Sample concentration exceed spiking level by a factor of 4. Spike recoveries are not valid.

Analyte Magnesium - ICP-6010 - All possible metals
[1] X5: Sample concentration exceed spiking level by a factor of 4. Spike recoveries are not valid.

Analyte Potassium - ICP-6010 - All possible metals
[1] X5: Sample concentration exceed spiking level by a factor of 4. Spike recoveries are not valid.

Analyte Silicon - ICP-6010 - All possible metals
[1] X5: Sample concentration exceed spiking level by a factor of 4. Spike recoveries are not valid.

Analyte Sodium - ICP-6010 - All possible metals
[1] X5: Sample concentration exceed spiking level by a factor of 4. Spike recoveries are not valid.

ATTACHMENT4

SAMPLE RECEIPT

Consisting of 3 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

ACKNOWLEDGEMENT OF SAMPLES RECEIVED

WSCF Laboratory
PO Box 650 S3-30
Richland, WA 99352

ATTN: Michael Neely

Customer Code:	CHPRC
PO #:	401980/ES20
Work Order #:	111404
Profile #:	F10-197-101
Proj. Mgr.:	
Phone:	

The following samples were received from you on 2/2/2011 3:15:00 PM. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

Sample #	Sample ID	Matrix	Collected	Received
		Tests scheduled		
111404001	B2B933	WATER	2/2/2011 14:03	2/2/2011 15:15
		2008-W; 6010-W; 8260V-W; ALK-W; IC-W		

Test Acronym Description

Test Acronym	Description
2008-W	ICP-MS (W)
6010-W	ICP-AES (W)
8260V-W	Volatiles by 8260B (W)
ALK-W	Total Alkalinity (W)
IC-W	Anions by IC (W)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-197-101	PAGE 1 OF 1
COLLECTOR: Rosane Rust Higuera	COMPANY CONTACT: RADLOFF, AW	TELEPHONE NO.: 376-4154	PROJECT COORDINATOR: RADLOFF, AW	PRICE CODE: 7N	DATA TURNAROUND
SAMPLING LOCATION: C7662 (399-4-15); 1-025	PROJECT DESIGNATION: 300 Area Remedial Investigation/Feasibility Analysis - 300-FF-5 Water		SAF NO.: F10-197	AIR QUALITY: ☐	30 Days / 30 Days
ICE CHEST NO.:	FIELD LOGBOOK NO.: HNF-N-505-2 pg 95	ACTUAL SAMPLE DEPTH: 86.2 Ft	COA: 300206ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

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)

111404

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2	HNO3 to pH <2	Cool~4C	Cool~4C
HOLDING TIME	14 Days	6 Months	48 Hours	14 Days
TYPE OF CONTAINER	aGs	G/P	P	G/P
NO. OF CONTAINER(S)	3	1	1	1
VOLUME	40mL	500mL	500mL	250mL
SAMPLE ANALYSIS	VOA - 8260 (TCL 300 Area RI/FS);	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	IC Anions - 300.0 (300 Area RI/FS);	ZZZZ_ALKALINITY (Alkalinity);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B28933	WATER	2-2-11	1403	✓	✓	✓	✓

ORIGINAL

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: Larry Rosane Larry Rosane 2-2-11	DATE/TIME: 1450	RECEIVED BY/STORED IN: Mark L. Mathile 2-2-11	DATE/TIME: 1450
RELINQUISHED BY/REMOVED FROM: Mark L. Mathile 2-2-11	DATE/TIME: 1515	RECEIVED BY/STORED IN: K Braza K Braza 2-2-11	DATE/TIME: 1515
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 401980ES20.☐** The 300 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐☐** The laboratory is to report all TICs for Method 8260. (1) ICP/MS - 200.8 (300 Area RI/FS); ICP/MS - 200.8 (Add-on 300 Area RI/FS) {Uranium}; 200.8_HG - ICPMS (300 Area RI/FS) {Mercury}; ICP Metals - 6010 (300 Area RI/FS);

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

A-6003-618 (REV 2)